The 3rd BUiD Doctoral Research Conference

13th of May 2017

Faculty of Education

Editors:

Professor Ashly Pinnington (Dean of Research)
ashly.pinnington@buid.ac.ae

Dr. Solomon David (Faculty of Education)
solomon.david@buid.ac.ae

The British University in Dubai
Doctoral Students Research Conference
BDRC2017
http://www.buid.ac.ae/BDRC-2017

The British University in Dubai, has been hosting Doctoral Conferences for three consecutive years (2015-2017), under the patronage of H.H. Sheikh Ahmed Bin Saeed Al Maktoum. The first conference that was held in May 2015 included 40 doctoral students presenting papers on their scientific research in such diverse areas as Sustainability, Innovation, Knowledge Management, Construction, Health Care, IT Security, Big Data, Complex Projects, Education, and Business Management. Many of the students are in full-time employment and have chosen thesis topics that address R&D challenges experienced in the workplace.

Sponsors of BUiD Doctoral Research Conferences have included Dubai International Academic City, Dubai Duty Free, Atkins, United Arab Emirates Khaleeji Chapter, and Al Sahel Contracting Company. Keynote presentations are given every year by academics from a range of GCC and UK universities such as the keynote presented in 2016 on "The Art and Science of doing a PhD" delivered by Professor Ghassan Aouad, President of the Applied Sciences University, Bahrain. Other keynotes have been presented by academics from the Universities of Glasgow and Loughborough.

Students from both BUiD and UK associate universities reviewed papers to gain experience and practice for their future academic activities. Academics from the University of Manchester, University of Glasgow and the University of Edinburgh have attended to support the conference, including reviewing and assessing nominations for the best paper awards. Awards have been presented for a wide range of full conference papers in Education, Project Management, Engineering & IT, Architecture, Sustainability and the Built Environment, and Business Management.

The past best paper awards address a wide range of PhD topics. In 2015: **Jacqueline Lottin** A Case Study Investigation of Special Needs Inclusion Policy Implementation in three Abu Dhabi Public Schools; **Mohammed Assaf** Examining the Perspectives of Public Schools' Grade 12 Emirati Students on Writing Challenges in English Language; **Vandana Gandhi** Parents Contribution to Preschool Children's Learning; **Yacoub Petro** Project Management Office Typology in UAE and its integration; **Shaima Al-Harmoudi** Stakeholder integration in open innovation construction Projects; **Shireen Chaya** Diversity Leveraging & Diversity-Competent Leadership: The Case of Leadership in UAE Organizations.

In 2016: **Lara Abdallah** A Study on the Perceptions of UAE private Secondary School Mathematics Teachers on the Impact of CPD Program Improvement*;* **Yan Zheng** (University of Glasgow) The Story, the Child, and the Touchscreen: How Story Apps Tell Stories; **Christine Unterhitzenberger** (Liverpool John Moores University) Organizational Justice and Construction Project Performance; **Shaikha Abdool** Electronic National Unified Medical Records and Application of Telemedicine; **Bertug Ozarisoy** (Cardiff University) Adaptation of Retrofit Strategies for Mass Housing Renewal and Urban Development order to meet the Demands of Energy Consumption, Occupants' Behaviour and their Cross-Cultural Influences in Northern Cyprus; **Eyad Megdadi** Multivariable Regulation of Gas Turbines for Automotive Applications.

In 2017: **Sandra Baroudi** An examination of factors that make international large-scale assessments effective: a case study of Lebanon; **Heba Daragmeh** Gifted and Talented Education Policy Analysis: A comparative study of the gifted and talented policies in the UAE, UK, USA, and Australia; **Selina Neri** From Quality to CSR; **Anmar Dulaimi** (Liverpool John Moores University) A Novel Cold Bituminous Emulsion Mixture for Road Pavement using A New Cementitious Filler; **Ala'a Abu Hijleh** Introducing System Dynamics Modeling to UAE Health Care Projects: Reducing patient waiting times; **Firoz Khan** The Future of Software Engineering: Visions of 2025 and Beyond; **Zahra Jwaida** (Liverpool John Moores University) Soft Subgrade Stabilisation Using Cement Kiln Dust and Ground Granulated Blast Slag.

Since 2016, conference attendance has grown to nearly 100 doctoral and masters students from the British University in Dubai and UAE based universities, including UAEU, Zayed University, Manipal University and Heriot-Watt University. As well as submissions from a number of UK based universities including universities from the UK alliance. Students from Cardiff University, University of Edinburgh, University of Glasgow, and Liverpool John Moores University have participated and presented at the conferences, in addition to students from elsewhere such as Skolkovo (Moscow School of Management) and the University of Rome.

Professor Ashly Pinnington
(Dean of Research)

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BDRC 2017 Conference Editors

Professor Ashly Pinnington, Dean of Research
ashly.pinnington@buid.ac.ae

Dr. Hanan Taleb (Faculty of Engineering & IT)
hanan.taleb@buid.ac.ae

Dr. Husam Al-Malkawi (Faculty of Business & Law)
husam.almalkawi@buid.ac.ae

Dr. Solomon David, (Faculty of Education)
solomon.david@buid.ac.ae

BDRC 2017 Conference Organiser

Dr. Meera Al-Reyaysa

Editing and Compiling of BDRC 2017 Conference Proceedings

Professor Ashly Pinnington
Sally Khalil (Executive Administrator)
Ahmed Ali (Digital Media Manager)

3rd BUiD Annual Doctoral Research Conference 2017

BDRC 2017

Saturday 13th May 2017	
9:00 – 9:30	Registration
9:30-9:50	Welcome and Acknowledgements
9:50 - 10:20	**Keynote Presentation: Responsible Research** Prof Stephen McKinney, The University of Glasgow
10:20 – 10:55	**Keynote Presentation - Project Management Stream:** **Working with Industry – University & Companies** Prof. Ronald McCaffer, Loughborough University
10:55	Break
11:00 - 12:30	2 hours Concurrent Sessions
12:30 – 13:45	Lunch and Prayers
13:45 – 15:45	**Presentation Education Stream:** **Supporting Research, Developing Minds** Brian Chung - Al Qasimi Foundation's Overview of Current Studies at the Sheikh Saud bin Saqr Al Qasimi Foundation. followed by 1 hour 20 minutes Concurrent Session **Business Management Stream:** 2 hours Concurrent Session **Engineering & IT Stream:** 2 hours Concurrent Session
15:45 – 16:00	Break
16:00 – 18:00	Concurrent Sessions Paper Presentations Education, Engineering & IT, Business Management 2 hours RM3 Concurrent Sessions
18:00 – 18:35	Awards Ceremony & Farewells

BDRC2017 CONFERENCE PROCEEDINGS

The British University in Dubai

Annual Doctoral Research Conference, 13th May 2017

Faculty of Education

Mohammad Assaf
The British University in Dubai

Extended Abstracts

Abstracts Only

The Extent of Viewing STEM Curriculum as Curriculum Innovation in a Private School in Dubai

Areej El Sayary

The British University in Dubai

Abstract

Science, Technology, Engineering, and Mathematics STEM curriculum is one of the most significant reform in science education (ElSayary, Forawi & Mansour, 2015). To ensure successful implementation of a new curriculum, it should be aligned with the culture, economic and social needs of the country. The United Arab Emirates UAE is highly aiming to increase Emirati students in STEM fields which is stated in a new policy called Science, Technology, and Innovation policy that launched in November 2015. The aim of this paper is to know to what extent the STEM is viewed as curriculum innovation in a private school in Dubai. The participants of this study are two groups of stakeholders: teaching positions (teachers and coordinators) and non-teaching positions (Head of departments, curriculum and assessment coordinators). Two instruments have been used: stakeholders' questionnaire with closed- and open-ended questions, and semi-structured interview.

Keywords: Centralization, decentralization, innovation attributes, STEM, curriculum innovation

Introduction

Education is changing continuously and adapted based on the societal needs. The methods and practices should reflect the culture or the culture should reflect the effectiveness on the curriculum (Peddiwell, 1939). This means that to ensure successful implementation of new curriculum, it should be aligned with the culture, the economic and social needs of the country. In a centralization education

policy system, countries all over the world are releasing policies that incorporate innovation in education (Vanderlinde & Van Braak, 2011). Teaching interdisciplinary Science, Technology, Engineering, and Mathematics STEM becomes essential in educational reform and policy making (Asghar, Ellington, Rice, Johnson & Prime, 2013). UAE put an action plan to a huge investment of STEM education in schools that will develop students' 21st century skills that consequently affect the workforce (Mosier, Levine & Perkins, 2013). In a decentralization educational policy system, schools have the responsibility of incorporating new curriculum within teaching and learning activities (Vanderlinde & Van Braak, 2011). Questions have been raised about teaching STEM in schools: what topics, contents or projects would be selected? What are the guidelines? How to ensure successful implementation of STEM that matches the UAE mission and vision? What teaching strategies could be used to teach STEM?

The significance of the study is to understand the guidelines that can be followed to implement a successful STEM curriculum in order to match the market needs and call for innovation. In addition, successful implementation starts from the school leaders and teachers. Accordingly, the following research question is used to fulfill the main purpose of the study:

To what extent implementing STEM in private schools in Dubai has been viewed as curriculum innovation?

- What are the STEM teachers' perceptions of teaching STEM in the light of innovation attributes?
- What are the school leaders' beliefs and challenges in implementing STEM as curriculum innovation in their schools?

The hypothesis of this study is to confirm the positive teachers' perceptions about innovation attributes should be high in the five sections: relative advantage, compatibility, complexity, trial-ability, and observe-ability in order to ensure successful changes.

Background of the study

UAE is focusing on science, technology and business innovation in order to shift from the dependence on oil to a knowledge-based economy with focusing on STEM education in all institutions (UAE Government, 2015; UAE Vision 2021, 2009; Khaleejtimes, 2015). A new policy called "Science, Technology and Innovation policy in UAE" has been released in November 2015. One of the essential goals of this policy is to increase Emiratis participation in the STEM workforce and enhance their research, creativity and innovation (UAE Government, 2015). The rapid change in the education sector inspires schools to prepare their teachers to teach STEM projects and curriculum in their classes. STEM curriculum has been implemented for 3 years in a private school in Dubai. It is taught as one period per week for grade 5-8 while in grade 1-4, it is one project per term in duration of a week. STEM has different models and requires special strategies to be implemented successfully however not all teachers are well trained to teach STEM.

Problem Statement

Teaching STEM aims to shift from the separate subjects to more meaningful learning that integrates between subjects to solve real-life problems (Capraro, Capraro & Morgan, 2013). The interdisciplinary STEM is a curriculum innovation that raises questions such as: what to be taught? And how it is taught? The teachers' attributes for innovation are important to ensure successful implementation of new curriculum. Furthermore, there is a clear gap between the call for teaching STEM in schools and the contents and strategies needed for successful implementation. The problem of the educational policies is to provide schools with all the resources, equipment and funding needed with less focus on teachers' professional development of how to teach a new curriculum (Jones, 2003; Owston, 2007). In addition, there are no clear guidelines to be followed for deciding the contents of STEM. No

enough researches have been conducted to understand the guidelines of what to be taught and how it is taught?

Literature

Interestingly important to note that curriculum holds an outstanding role to promote innovation in education as it reflects the vision of education by influencing knowledge, skills and values of students (Karkkainen, 2012). Curriculum has been defined by what should be taught to students and how they are taught as it identifies the kind of knowledge, skills, and values students need to acquire (Sowell, 2005; Karkkainen, 2012; Brundrett & Duncan, 2011; Law & Li, 2013; Koh, Ponnusamy, Tan, Lee & Ramos, 2014). Curriculum decisions are always difficult because of the interrelationship and the large number of participants involved in them (Sowell, 2005). Klein (1999) categorized the curriculum decisions as: content; goals, objectives, and purposes; materials and resources; activities and teaching strategies; evaluation; and grouping, time, and space. The content comes from the discipline, knowledge, or comes from societal needs. Goals, objectives and purposes are learning outcomes that results from students' learning. Materials and resources include everything used to facilitate the learning processes such as: objects, places, and people. Activities and teaching strategies are the ways in which students are involved in the learning processes. Evaluation is to assess students' learning through classroom observation, assessments, reports, or projects. Grouping, time, and space are issues needed to use the curriculum in the classrooms. In addition to these dimensions, the values and beliefs of people that affect the curriculum decisions (Goodlad & Su, 1992; Tyler, 1949).

Centralized decentralization

Many researchers argue that centralization alone or pure decentralization will not lead to curriculum innovation and both of them are needed (Fullan, 2007; Darling-Hammond, 1998; Marsh & Willis, 2007; Snyder, Bolin & Zumwalt, 1992; Koh et al., 2014). Centralization is a vertical

communication (top-down process) that comes from the government and gives incentives to adapt the improvements through the education system (Karkkainen, 2012; Elmore & Sykes, 1992). Central curriculum influence decision-making on "what" should be taught. This refers to the release of the new policy in UAE "Science, Technology, and Innovation" that aims to develop the talents of the Emiratis in STEM fields by teaching it in the school level.

On the other hand, decentralization is a horizontal communication (bottom-up approach) where the decision-making and innovation attribute are central use of teachers and school leaders that lead to educational innovation (Ofsted, 2008; Fullan, 2007; Synder, Bolin & Zumwalt, 1992; OECD, 2004; Elmore, 1996). It ensures adapting changes in the classroom level using differentiation to achieve the culture needs and the school vision (Bailey, 2000; Darling-Hammond, 1998; Elmore & Sykes, 1992; Bentley, 2008).

Curriculum innovation

Curriculum innovation includes new subjects, integration between old subjects, crosscutting learning objectives, sequencing, time allocation, new pedagogies, contents, or concepts (Karkkainen, 2012; Priestley, 2011) or a new kind of schools with a certain kind of curriculum (McCulloch, 1998). Curriculum innovation has been defined as the implementation of a new and essential curriculum that improves the educational system (Karkkainen, 2012; Brundrett & Duncan, 2011; Law & Li, 2013; Pristley, 2011). Leithwood (1981) stated out nine dimensions of curriculum innovation: platform, objectives, student entry behaviors, assessment, tools and procedures, instructional material, learner experiences, teaching strategies, content and time. Platform is considered as the main dimension where all the other dimensions implicit in it. It includes the beliefs, vision, images, and procedures.

Karkkainen (2012) pointed out the various approaches that lead to educational innovation. First, it is important to understand that no system relies on a central or school-based approach to ensure

curriculum innovation. Second, the innovation power that implies in the central curriculum and the innovation flexibility that implies in the decentralized curriculum can be reduced. Finally, stakeholders such as: school leaders, teachers, students, and parents are able to influence curriculum innovation. Koh, Ponnusamy, Tan, Lee and Ramos (2014) argued that innovation is a socio-cultural process that requires the involvement of school leaders and teachers in the decision-making processes (Karkkainen, 2012). The distributive leadership amongst teachers as well as continuity of leadership of school leaders can drive and sustain change to the curriculum (Mourshed et al., 2010). Moreover, Lieberman and Mace (2008) emphasized that teachers have the central role in driving curriculum. Important findings of a study about curriculum innovation is that it will be more successful when teachers and school leaders work together in the developing of students skills and achievements; all stakeholders are involved in the innovation processes; and understanding the values of implementing new curriculum (Brundrett & Duncan, 2011).

According to Ornstien and Hunkins (2014), for a successful implementation of curriculum change, five guidelines should be followed. First, change in the structure of a traditional school where the effective teaching strategies and the student-centric approach must be adopted. Second, change must be organic rather than bureaucratic: the organic and adaptive approach allows some deviation from the original plans and recognizes the roots of problems and school conditions. Third, innovation must be manageable and feasible for the average teachers in order to innovate ideas concerning critical-thinking and problem solving. Fourth, innovations designed to ensure students' achievements must be technically sound: changes reflect what works and what does not work. Finally, a definite curriculum plans: that focuses efforts, time, and money on sound, rational content and activities.

Rogers (2003) pointed out the attributes of innovation that influence individuals' perceptions: relative advantage; compatibility; complexity; trial-ability; and observe-ability. Relative advantage is

the degree to which the new curriculum is perceived better than separate subject. Compatibility is the degree to which the new curriculum is consistent with values, experiences, and needs of teachers. Complexity is the degree to which the new curriculum is difficult to understand and use. Trial-ability (feedback mechanism) is the degree to which the new curriculum is examined on a limited basis. Observe-ability is the degree to which the results of implementation are visible to other. Fullan (1993, 1999, 2001, 2003) pointed out the importance of the collaboration between all stakeholders, community engagement and strategic plan.

Interdisciplinary STEM Education

One of the most significant innovation in the educational system is the implementation of interdisciplinary Science, technology, engineering and math STEM in schools. Interdisciplinary curriculum is a case of curriculum innovation that involves complex integration to deliver quality-learning experiences without neglecting academic outcomes (Tan & Leong, 2014). It has a great impact on increasing students' interest in STEM professions in addition to develop students' 21st century skills (Asghar et al., 2013; Mosier, Levine & Perkins, 2013; Wyss, Heulskamp & Siebert, 2012; Asunda, 2012). Capraro et al. (2013) described the strong integration between STEM subjects using part of the body where science is the musculoskeletal system; technology as a tool which is the hand; engineering is the way of thinking (brain); and mathematics is the heart and blood that moves around all the body. Furthermore, Dugger and Fellow (2011) mentioned different models of integrating STEM subjects.
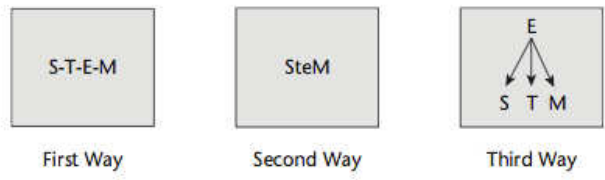
Figure (1): The different ways of interdisciplinary STEM (ElSayary, Forawi and Mansour, 2015).

The first way shows that the focus on the four disciplines is equal in time taught. The second way where the S and M are capital means that the focus is on science and mathematics subjects only while technology and engineering have less focus. The third way is the most effective way where the focus is on engineering project and the other subjects are integrated beyond the engineering project or concept (ElSayary, Forawi and Mansour, 2015; Dugger and Fellow, 2011). Project-based learning and problem-based learning PBL are the best strategies used to teach STEM however, the problem-based learning is dealing with ill-structured problems while project-based allows for creativity and innovation (Hung, 2011). Based on Barrows' (1986) PBL taxonomy, there are three levels of strategies using two variables: student/teacher led and complexity of problems. The highest level that lead to the higher-order thinking is the fully students' led in solving ill-structured problems.

PBL cut across three types of learning that have been proven to enhance students' skills: cognitive learning, collaborative learning, and content learning (Du et al., 2009; Kolmos et al., 2009; Eavitz, 2010). Constructivism is considered to be the backbone of PBL, which is the process students practice in their classrooms to be users of information instead of receivers of information (ElSayary, Forawi & Mansour, 2015). STEM curriculum and contents should be aligned with the culture, market needs, and UAE vision in order to be successfully implemented and lead to innovation.

Curriculum foundations set as the outline of the curriculum (Kleibard, 1982). This research highlights the social foundation with combination of other foundations of curriculum that should be considered. Regarding the philosophical foundation, it implies in viewing teaching and learning to be more exploratory (Ornstein & Hunkins, 2014). The progressivism view of philosophy aims to enhance teachers' roles to be guides for active learners through using different strategies such as: inquiry, problem solving, or project-based learning (Ornstein & Hunkins, 2014). The reconstructionism aims to the reform of education as well as reconstructing society (Ornstein & Hunkins, 2014). The psychological foundation

that aims to shift from the focus on knowledge to the focus on developing students' skills should be considered. A strong relationship occurred between the curriculum innovation and the socio-political trends, which is considered to be the social foundation of curriculum (Ornstein & Hunkins, 2014).

Theoretical Framework

In the light of the literature where teachers and school leaders have the pivotal role in curriculum change, the framework of the study will be guided using the innovation attributes (relative advantage, compatibility, complexity, trial-ability, and observe-ability) to measure teachers' perceptions. As the curriculum decision-making cannot be done without the school leaders, their beliefs and the challenges they face during implementation of new curriculum will be considered to understand.

Methodology

The research implemented over a period of two weeks as a pilot study in one branch of a private school in United Arab Emirates, Dubai out of four branches. The study sparks the extent of the interdisciplinary STEM to be viewed as curriculum innovation. Based on the framework and research question of the study, there are two paths: school leaders' beliefs and challenges of innovation, and teachers' perceptions of innovation attributes.

Research Design

A mixed method is implemented to address the research question of the study where the data is collected qualitatively and quantitatively. The type of mixed-method used is called "Embedded mixed-method" that seeks convergence and corroboration of results from nesting one form of data into the other (Johnson & Christensen, 2012; Creswell, 2009). Morse (1991) stated that qualitative data is nested in quantitative data to describe aspects of study that cannot be quantified. Results from both data will be integrated to increase credibility and trustworthiness of results (Christensen & Johnson, 2012; Creswell,

2009). This study is considered to be a pilot study that is done in one branch out of four branches of a private school in Dubai.

The Participant

The participants of the study are selected from the population, which is the large group where the results are generalized (Johnson & Christensen, 2012). The participants of the study are two groups of stakeholders in the school: teaching (teachers and coordinators) and non-teaching positions (head of departments, assessment and curriculum coordinators). The characteristic of the population that all of them involved the planning, developing, teaching, or evaluating in one or all of the STEM subjects. A random sample selected from teaching positions (N1=40) while a purposive sample selected from non-teaching position (N2=6).

Instrumentation

Two instruments have been used in this study, which is the stakeholders' questionnaire with closed-ended items and open-ended questions, and semi-structured interview.

Teachers' Questionnaire

The teachers' questionnaire is designed to fulfill the first sub-question of the study about teachers' perceptions of innovation attributes. The questionnaire consists of demographic information about participants and innovation attributes (relative advantage, compatibility, complexity, trial-ability, and observe-ability). The intra-method mixing questionnaire is designed to have closed-ended items and open-ended questions in each section (Johnson and Christensen, 2012). Each section of the questionnaire starts by closed-ended items is designed according to 5 points Likert-scale and open-ended question.

Interview

A semi-structured interview is conducted with open-ended questions to collect qualitative data from the head of departments, assessment and curriculum coordinators. Six interviews were conducted each was 45 minutes. The questions are asking the school leaders about their perceptions, beliefs and challenges of curriculum innovation. The advantage of the semi-structured interview that it allows the researcher to control the questioning and modifying when needed (Creswell, 2014).

Data Collection Method

Based on the philosophy of pragmatism, the quantitative and qualitative data were combined together as it seeks to extend the depth and breadth of information (Johnson & Christensen, 2012). The duration of the study is two weeks where the data of the questionnaire (Appendix A) is collected through Qualtrics website in duration of two weeks. To validate data each section of the innovation attributes was followed by open-ended question to understand the results deeply (McMillan & Schumacher 2010). A descriptive statistic (percentage, mean and standard deviation) has been done to proof the hypotheses. The data from the questionnaire and interview have been integrated in the light of the theoretical framework.

Ethical Consideration

The ethical consideration has been taken where the purpose and significance of the study were mentioned in a letter sent to participants. Approval of consent form has been taken from participants to ensure anonymity and all data were kept confidential (Creswell, 2014).

Data Analysis

The results are collected both quantitatively and qualitatively then interpreted based on the framework of the study into two categories.

Demographic Information

The survey has been used to address the first sub-question of the study. It is sent to 40 teachers however, 32 teachers have been selected to analyze their data based on the longer experiences and the higher rate of school evaluation. Results show 75% of teachers have experience in the school between 0-5 years and had professional development of how to teach STEM while 25% have between 6-10 years of experience and have no professional development in teaching STEM. All the teachers responded that they have 0-5 teaching experience of STEM. This is because STEM education is new in UAE and no teachers have long experience in teaching it.

Teachers' Attributes

The questionnaire is used to measure the teachers' attributes in five sections: relative advantage, compatibility, complexity, trail-ability, and observe-ability. The survey has been provided with open-ended question in each section to emphasize and clarify the results. The hypothesis is to confirm positive teachers' perceptions about innovation attributes.

Teachers' attributes

Relative Advantage 22%
Compatibility 22%
Complexity 14%
Trialability 20%
Observability 22%
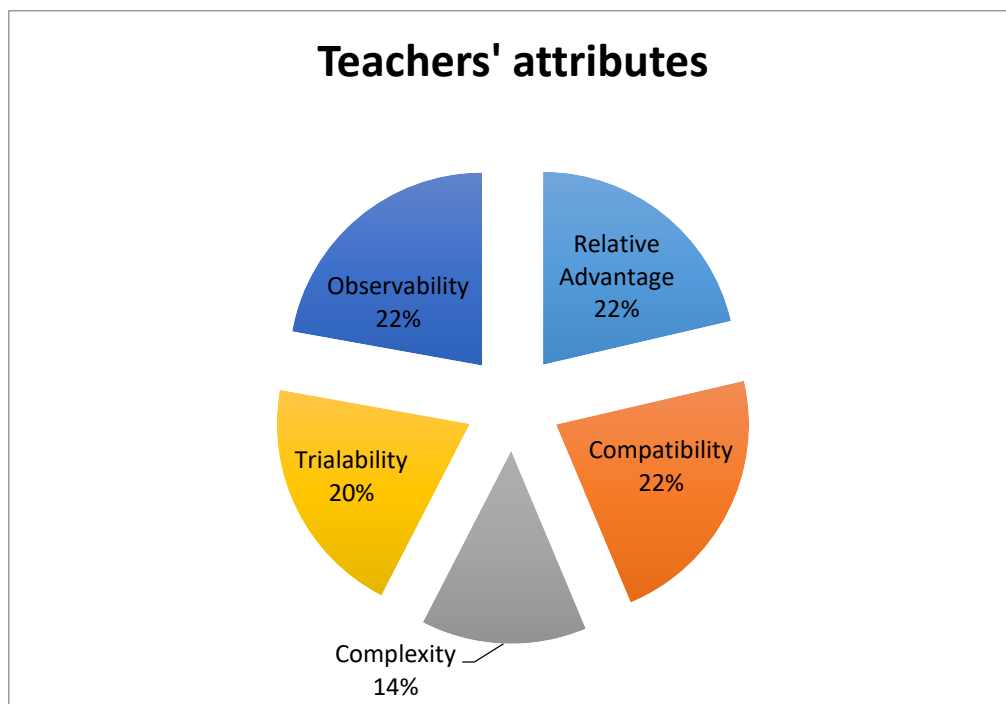
Graph (1): teachers' perceptions about innovation attributes of teaching STEM.

The teachers' responses about the innovation attributes were positive however there are some challenges they face during the implementation of STEM curriculum. The results show that the complexity attribute of innovation has the lowest percentage where teachers feel complexity in teaching STEM because it requires comprehensive content knowledge. The relative advantage, compatibility, and observe-ability have the same percentage while trial-ability is lower but still higher than complexity.

Teachers' attributes

■ Mean ■ Standard Deviation

Attribute	Mean	Standard Deviation
Observability	4.63	0.5
Trialability	4.23	0.69
Complexity	2.9	1.18
Compatibility	4.66	0.55
Relative Advantage	4.46	0.51
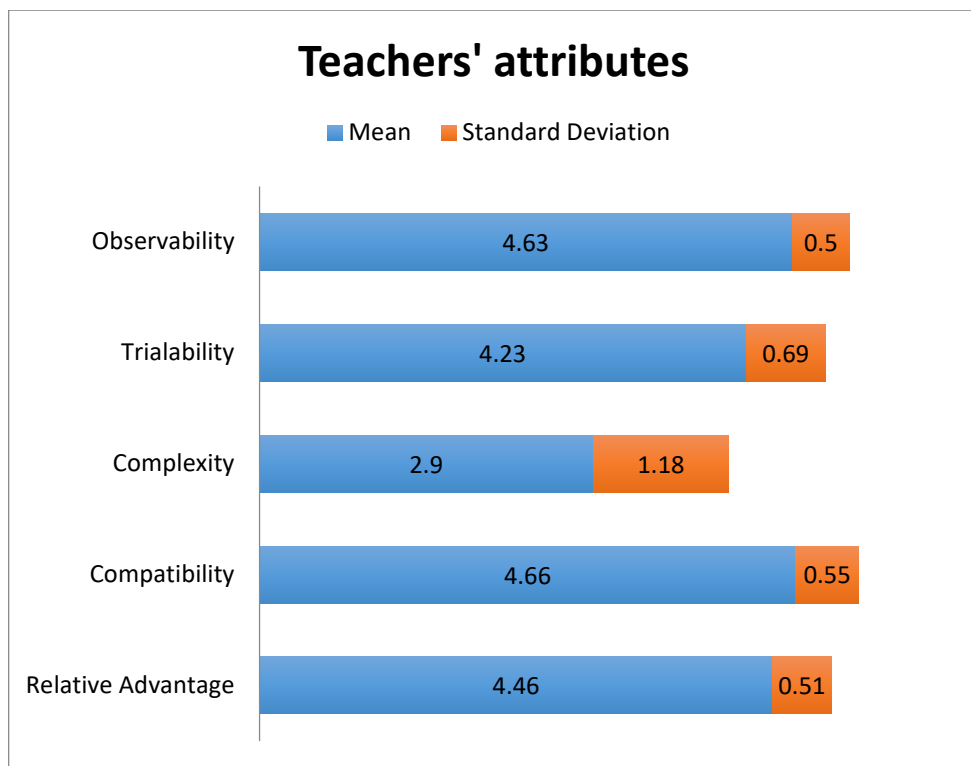
Graph (2): Comparison between mean and standard deviation of the five innovation attributes.

As shown in the graph the highest mean is in the compatibility 4.66 with SD=0.55 while the lowest mean is in the complexity 2.9 with the highest standard deviation SD=1.18 which shows a clear gap in this attribute.

Relative Advantage

All the teachers agreed that the implementation of STEM curriculum: would improve students' attainment in standardized assessment; cause improvement in our educational system; and is more interesting to teach than the separate subjects. The highest mean (4.6) was in the first item where the implementation of STEM will improve students' attainment in the standardized assessments while the lowest standard deviation (SD=0.48) is in the last item where the STEM is more interesting to teach than the separate subjects.

Relative Advantage

■ Mean ■ SD

STEM is more interesting to teach than the separate subjects.	4.6 — 0.52
The establishment of the STEM curriculum is a real improvement for…	4.5 — 0.53
Implementation of STEM Curriculum will improve students' attainment in…	4.3 — 0.48
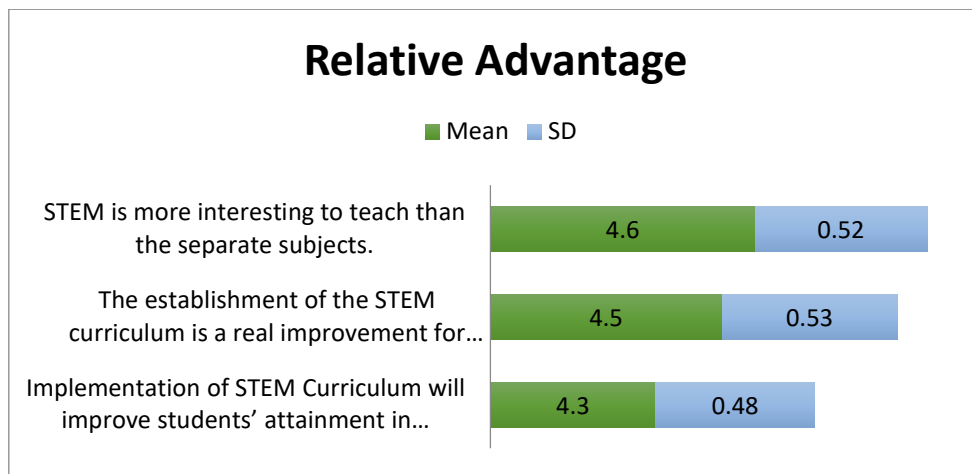
Graph (3): Teachers' responses about the items in the relative advantage attribute.

The open-ended question about how do they feel their students benefit from learning STEM. The responses come that the STEM classes are a fully student-centered approach where students are responsible about their learning, take decisions for solving real-life problems, and allow them to open their minds to creativity. Teachers mentioned that students' progressed in their reasoning skills where they were able to solve real-life problems, reflect, and answer higher-order thinking questions.

Compatibility

Also in the attribute of compatibility, all teachers' responses were very positive. They responded that STEM curriculum is consistent with their ideas of teaching and learning, corresponds with their

vision about the nature of good education, and helped students to learn more than expected. These items got the highest mean (4.7). The lowest standard deviation (SD=0.48) is in the last item where the implementation of STEM helped students to learn more than expected.

Compatibility

Mean ■ SD

Implementation of STEM curriculum helped students to learn more than…	4.7 — 0.67
The STEM curriculum corresponds with my vision about the nature of good…	4.6 — 0.52
The STEM curriculum is consistent with my ideas of teaching and learning.	4.7 — 0.48
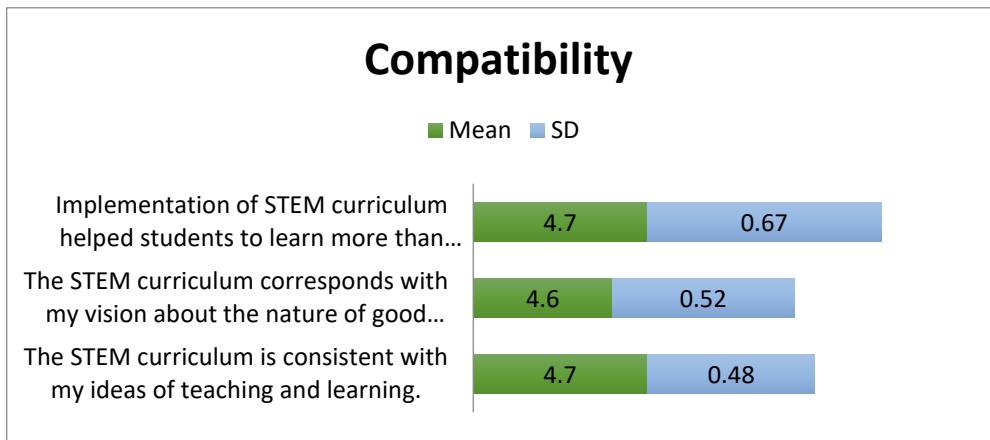
Graph (4): Teachers' responses about the items in the compatibility attribute.

The responses of the open-ended question were about the compatibility of STEM with the educational curriculum reform. The teachers responded that it develops students' 21st century skills, calling for innovation, student centered-approach, and help students to be introduced to different careers. Teachers mentioned that students learn the concepts more deeply based on their interests and choices of research.

Complexity

Regarding the complexity attribute, the responses of teachers differ, 30% of teachers agreed that students find STEM projects difficult to understand while 70% disagree. Regarding the difficulty of teaching STEM, 40% disagree about it while 30% agree and 30% neither agree nor disagree. 60% of teachers agreed that STEM requires having a comprehensive content knowledge.
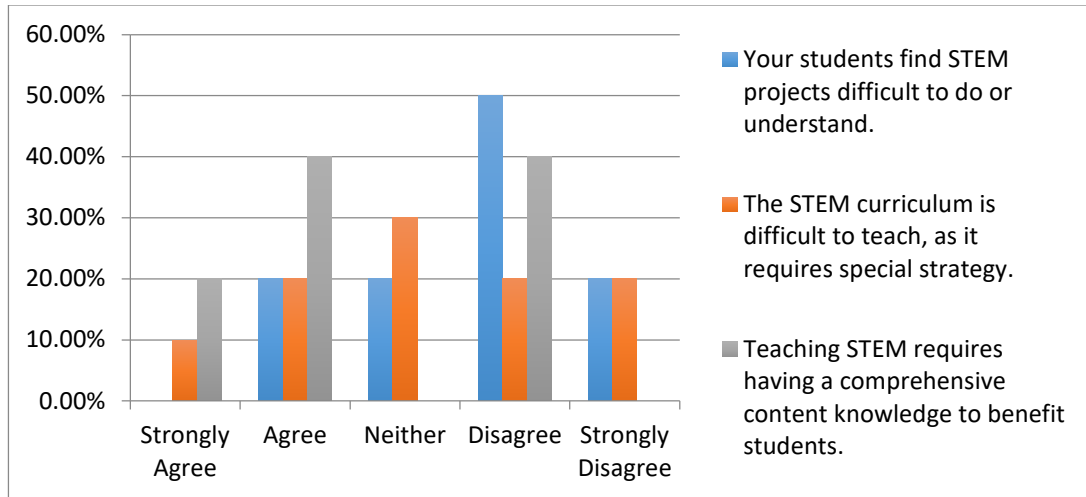
Graph (5): Percentage of teachers' responses on the items of complexity

The gap mainly occurred in the difficulty of teaching STEM and requires comprehensive content knowledge. The last item got the lowest mean (2.5) while the highest standard deviation is in the second item.
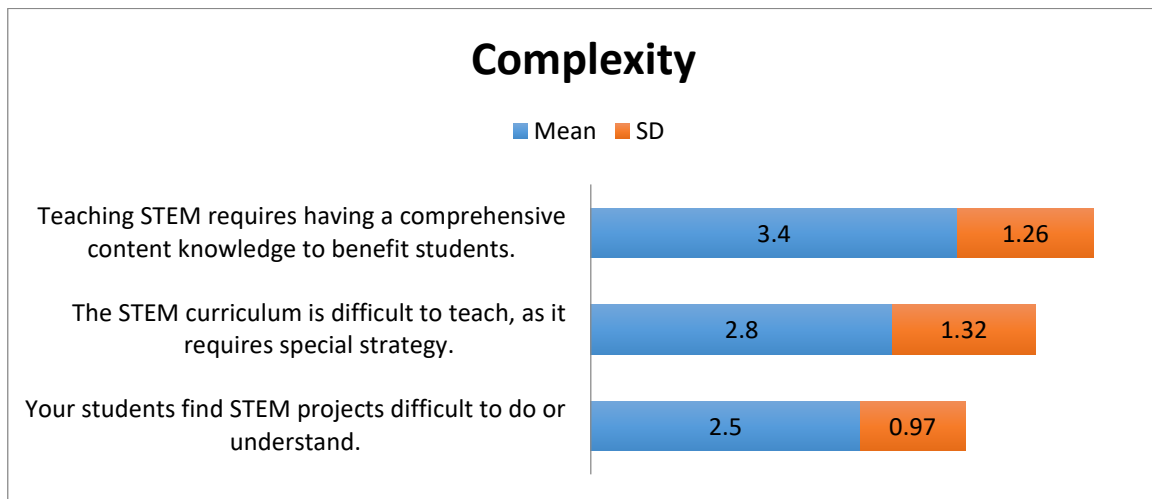
Graph (6): Teachers' responses about the items in the complexity.

To clarify the responses of teachers, an open-ended question has been inserted to ask them about the challenges they face in teaching STEM. Majority of teachers responded that teaching STEM requires special process to follow and student-centered environment. One of the responses stated that teaching STEM needs time to feel the change with the students' skills and in accomplishing the projects.

Trial-ability

All teachers agreed in being able to try STEM projects is important in their decisions to teach it or not with the highest mean (4.3) and lowest standard deviation (SD=0.48). 80% of teachers agreed that they get students' feedback after each project, which is important and gives image for teachers about what went well and what needs improvement. 70% of teachers responded that they collect data about students' attitudes toward the STEM curriculum.
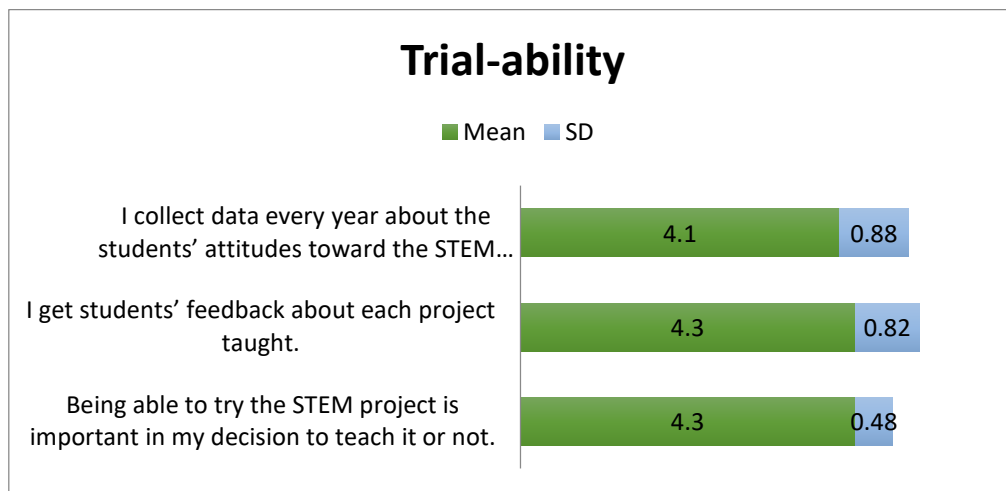
Graph (7): Teachers' responses about the items in the trial-ability.

The question is asking teachers about the challenges they face in selecting STEM topic or content. Teachers responded that they do a lot of efforts in aligning standards of subjects and sometimes they change the topic because of the standards need to be covered.

Observe-ability

All teachers agreed that students feel interested in learning STEM and that implementation of STEM will lead to clearly observable changes in teaching, learning, and students' skills. The highest mean (4.7) was in the second item with the lowest standard deviation (SD=0.48).
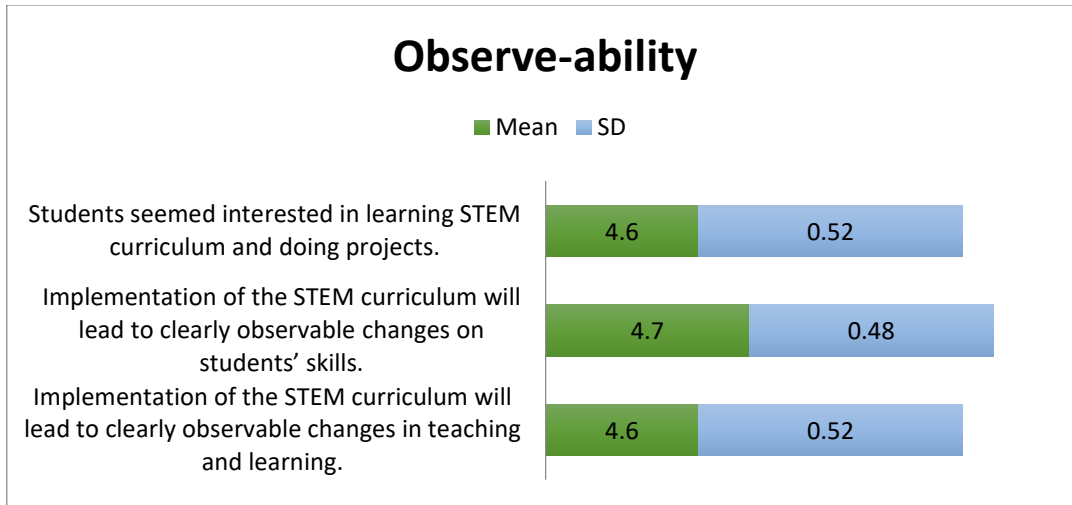
Graph (8): Teachers' responses about the items in the observe-ability.

The open-ended question is asking them about how do they assess students' learning. The responses came that they use rubrics for each step in the processes of the project. In addition to the reflection part where the students reach the higher-order thinking skills, reflect upon their work, and connect between subjects in producing real-life projects.

School leaders' Interview

Semi-structured interviews have been conducted for six school leaders: Head of departments, assessment, and curriculum coordinator to answer open-ended questions. The questions are used to address the second sub-question of the study, which is to understand the school leaders' beliefs and challenges they face in implementing STEM as a curriculum innovation in their school.

To what extent the school vision is aligned with UAE vision?

Curriculum & Assessment coordinators stated, "*We modify the curriculum to be aligned with the culture. We designed a STEM curriculum that is aligned with the TIMSS advanced framework 2015. The science, technology and innovation policy and the themes of EXPO2020 set as guidelines in designing*

the curriculum and in choosing the contents and the projects". Coordinators mentioned that students' progressed in reasoning skills after being exposed to the STEM curriculum in the first year. The school leaders provided the researcher with the graphs that shows evidence about students' progress in math subject after exposing them to STEM curriculum.
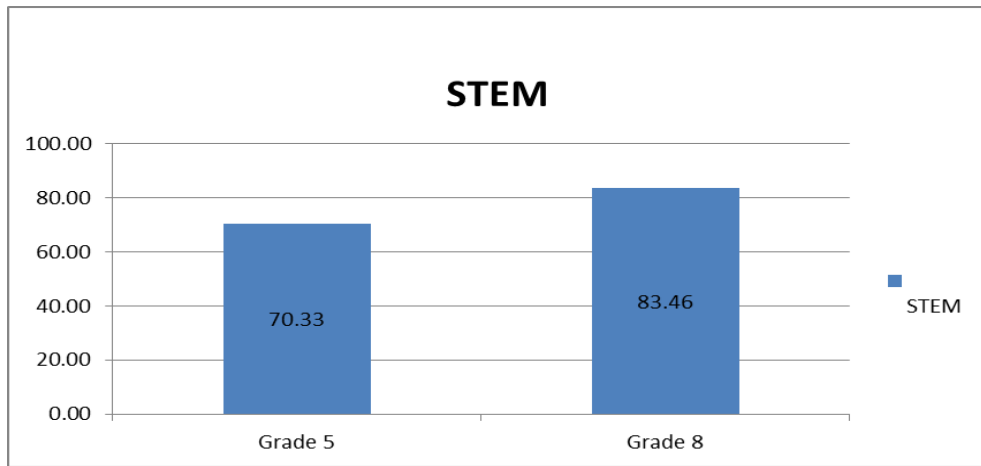
Graph (6): Phase 3 students' attainment in STEM subjects.

The attainment of students in STEM projects during the year 2013-2014. STEM project-based learning is implemented to develop 21st century skills of students while they address real life issues that enhanced teaching and learning which lead to high achievement in the reasoning skills of math and science. The graph below is from the school data that shows phase 3 has been progressed in 2013-2014 in math subject after exposing students to STEM projects.
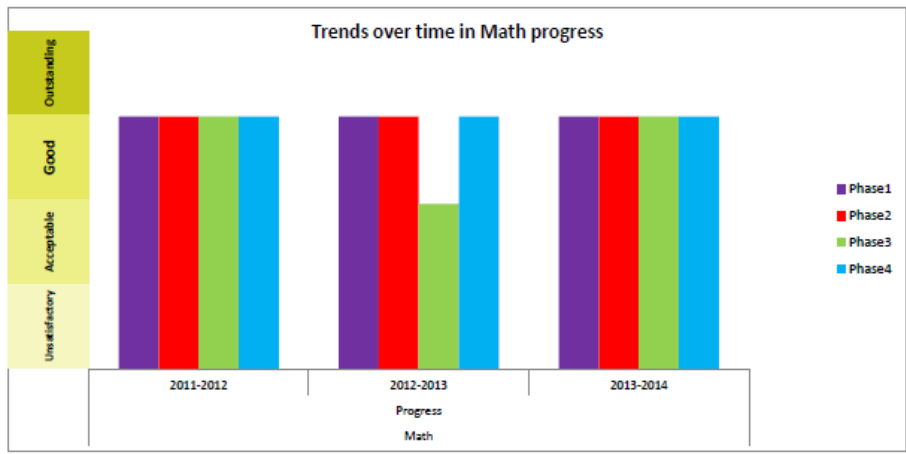
Graph (7): Trends over time in Math progress.

They also mentioned that alignment between the STEM subjects is challenging as they choose the theme and teachers should align the standards to generate projects. The head of departments mentioned that the school main vision is rising "*generation of heritage guardians and global thinkers*". This vision set as guide for them to think of innovative ideas and the value of the culture to integrate within the curriculum. They mentioned that the STEM classes has the higher evaluation in teaching and learning and this is aligned with the UAE vision 2021 that states the importance of raising the quality of teaching.

What is your opinion about the changes in the inspection framework of the KHDA in terms of innovation?

They pointed out that the inspection framework raised the criteria of the schools however the school rating as per the report 2015-2016 is "Good". The school leaders emphasized the role of the innovation committee that is conducted in the school with the cooperation of 15 school leaders, coordinators and creative teachers.

It has been allowed for the researcher to view the school report of the KHDA 2015-2016 during the interview. In the innovation section, it is stated that the "STEM teachers developed a wide range of STEM projects that give them opportunities for creative ideas. Students' innovation opportunities were plentiful in the classrooms".

How do you develop the students' learning skills?

Students' learning skills have been developed inside and outside the classrooms through offering extra-curricular activities, cross-curricular link, STEM projects, Islamic projects, planting projects, etc. The students feel responsible in conducting mini-projects that serve the community.

While planning for the curriculum pathways, to what extent the curriculum choices is in alignment with the market needs?

This is weakness in the school curriculum. There is no plenty of curriculum choices. Modification will be done through aligning the market needs with the curriculum pathways. The school leaders have collected data from KHDA in order to understand the market needs and the percentage of graduate students in each field. The school suggests doing five curriculum pathways in order to give more opportunities for students to select their preferences of curriculum and to have variety of career choices.

Discussion

The results show that teachers' perceptions, school leaders' beliefs, and the KHDA report emphasize that implementing STEM is considered as curriculum innovation. The positivity of the results about ensuring student-centered approach, students' achievements, change is organic where teachers have flexibility to try the projects which affects their decisions of implementation have been emphasized as process of curriculum innovation (Ornstien and Hunkins, 2014). As mentioned in the results and compatible with the argument of Koh et al. (2014), the collaboration of teachers and school leaders in a socio-cultural process lead to the innovation in decision-making. Based on Dugger and Fellow (2011), two models have been implemented in different levels; cross-curricular link (SteM) within separates subjects and interdisciplinary STEM projects (E→STM). By comparing data from teachers and school leaders, the findings showed that STEM framework has considered the standardized assessments of TIMSS advanced framework 2015 that emphasize the topics needed for assessing STEM students (Mullis & Martin, 2014). Furthermore, teachers emphasized the improvement of students' reasoning skills. In addition to the evidence data provided from the school that proves students' progress after being exposed to STEM projects. Constructivism is the backbone of Project-based strategy in teaching STEM, it requires student-centered environment (ElSayary, Forawi & Mansour, 2015). As mentioned earlier that PBL cut across three types of learning: cognitive, collaborative and content learning that

enhances students' 21st century skills (Du et al., 2009; Kolmos et al., 2009; Eavitz, 2010) which leads to higher-order thinking skills. Furthermore, the results shows that the approach used in teaching STEM is the project-based learning that is considered the first step after case-based learning toward the pure problem-based learning as stated in Barrow's PBL taxonomy (1986).

The results showed positive perception of teachers about four innovation attributes (relative advantage, compatibility, trial-ability, and observe-ability). The main gap occurred in the complexity attribute where teachers find difficulty in teaching STEM and emphasized the comprehensive content knowledge they should have to teach. However, the percentage of demographic information showed that majority of teachers took professional development of how to teach STEM while minority did not get professional development of teaching STEM. Based on Shullman's (1987) idea, teachers should have the pedagogical content knowledge not only content knowledge or pedagogy. School leaders pointed out the high evaluation of observations in STEM classes, which fulfill the requirements of UAE vision 2021. However, there are some challenges occurred in this study should be considered to ensure continuity in implementing STEM curriculum (alignment, professional development, and time constraint).

First, aligning the standards between subjects and comparing practices with the best in the field. It is highly recommended to use software of mapping the curriculum in order to be easy for teachers and curriculum coordinators to align the standards that matches the topics taught in other subjects. This will allow students to learn the concepts more deeply when using their previous knowledge and start building new ones. Elsayary, Forawi and Mansour (2015), stated that learning occurs when students go through three main steps: "*What do they know? What do they need to know? And how can they find it out?*"P.359.

The second challenge is the teachers' professional development in teaching STEM using PBL strategy in student-centered environment. Some teachers still need guidance even during the teaching

process and the head of departments' role is to guide them during the classroom observations. Teachers have significant role in developing materials needed for STEM projects. Loucks-Horsley, Stiles, Mundry, Love & Hewson (2010) mentioned an important key function of teachers in being engaged in professional development to develop teacher leadership in curriculum design and innovation.

Finally, time is another challenge where teachers need time to design, plan and reflect on the curriculum. It is highly recommended to provide teachers blocked time to give them opportunities to share ideas, be creative in planning and designing projects.

Conclusion

The STEM curriculum is implemented in this school for three years and still in the developmental stages. The main purpose of this study is to explain and explore to what extent implementation of STEM curriculum has been viewed as curriculum innovation is fulfilled. Integration between subjects, crosscutting learning objectives and new pedagogies are considered to be curriculum innovation (Karkkainen, 2012; Priestley, 2011). It is the implementation of a new and essential curriculum that improves the educational system (Karkkainen, 2012; Brundrett & Duncan, 2011; Law & Li, 2013; Pristley, 2011). The KHDA annual report of 2015-2016 has stated the innovation of the school through the STEM curriculum.

Teachers' innovation attributes, school leaders' beliefs, and challenges they face have been measured and analyzed. Results of teachers' innovation attributes: relative advantage, compatibility, trial-ability, and observe-ability were high. Regarding the complexity of teachers' innovation attributes, there were some challenges that hinder teachers from being able to teach STEM in a proper way and feeling difficulty. The best way to teach STEM is the PBL strategy that enhances students' 21st century skills to lead them to the higher-order thinking. The school leaders were leading the innovation in a

proper way as they have innovation committee who decide the shape of innovation in the school system. The distributed leadership among teachers was led by the school leaders in assigning them the tasks of planning projects. As stated in the literature, innovation can be spread out horizontally among the schools (Synder, Bolin & Zumwalt, 1992; OECD, 2004; Elmore, 1996). Implementation of STEM curriculum is considered to be innovation however there are some challenges that need to be considered such as: alignment between standards of subjects, teachers' professional development, and time for teachers to do planning. Finally, there is no value of what has been chosen to teach within STEM curriculum if it is not matching the market needs.

Limitation and Recommendations

This study is considered to be a pilot study for further study to be done and for testing the tool for reliability and validity. The study was limited to measure teachers' perceptions and school leaders' beliefs in implementation of STEM curriculum and how it is viewed as innovation. Further studies should be done on the radiation of STEM among private schools and the link between curriculum policy and innovation. It is also recommended to choose the participants to be all the stakeholders (school leaders, teachers, parents, and students). Another limitation is the time constraints of the study where the study is conducted in the end of year and there were no chances to observe STEM classes.

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Appendices

Appendix (A): Teachers' Questionnaire
Demographic Information

PART 1: Please provide the following information about yourself.
- What was the rating of your school during previous academic year 2014/2015?
  Outstanding   Very Good   Good   Acceptable
- What is your job?
  Teaching   Non-teaching   Both   Senior-leadership
- How many years have you been working in your school?

  0 – 5   6 – 10   10 – 15   15 – 20   more than 20
- How many STEM teaching experiences do you have?

  0 – 5   6 – 10   10 – 15   15 – 20   more than 20
- Have you ever had in or pre service training (Professional development training)?

          Yes   No

Part 2: The questions in this section are asking you about your perceptions of implementing New curriculum in the light of the following innovation attributes taking STEM education as a case of innovation:

SD = Strongly disagree   D = Disagree   N = Neutral   A = Agree   SA = Strongly Agree
There are no correct or incorrect answers. All Reponses will be kept confidential.

What is your perception of the following?

Innovation Attributes		SD	D	N	A	SA
Relative Advantage	1. Implementation of STEM Curriculum will improve students' attainment in international assessments.					
	2. The establishment of the STEM curriculum is a real improvement for our educational system.					
	3. STEM is more interesting to teach than the separate subjects.					
How do you find the students' benefit from learning STEM?						
Compatibility	4. The STEM curriculum is consistent with my ideas of teaching and learning.					
	5. The STEM curriculum corresponds with my vision about the nature of good education.					
	6. Implementation of STEM curriculum helped students to learn more than expected during STEM classes.					
How do you find STEM compatible with the educational curriculum reform?						

Complexity	7. Your students find STEM projects difficult to do or understand.					
	8. The STEM curriculum is difficult to teach, as it requires special strategy.					
	9. Teaching STEM requires having a comprehensive content knowledge to benefit students.					
What Challenges do you face in teaching STEM?						
Trial-ability	10. Being able to try the STEM project is important in my decision to teach it or not.					
	11. I get students' feedback about each project taught.					
	12. I collect data every year about the students' attitudes toward the STEM curriculum.					
What are the challenges do you face in developing STEM contents or projects?						
Observe-ability	13. Implementation of the STEM curriculum will lead to clearly observable changes in teaching and learning.					
	14. Implementation of the STEM curriculum will lead to clearly observable changes on students' skills.					
	15. Students seemed interested in learning STEAM curriculum and doing projects.					
How do you assess students' learning in STEM classes?						

Appendix (B): School Leaders' Interview

Interview Protocol

Date: ___/6/2016   Place:_____

Interviewer: Areej ElSayary   Interviewee:_____

Position of interviewee: _____   How many years in the school:_____

_ . _ .._

Brief description of the project

The purpose of the study is to explore and explain the extent of viewing STEM as curriculum innovation. The teachers' perceptions and school leaders beliefs about implementing new curriculum will be the focus of the study. In addition, the challenges that hinder the implementation will be studied.

Questions

1. To what extent the school vision is aligned with UAE vision?

2. What is your opinion about the changes in the inspection framework of the KHDA in terms of innovation?

3. How do you develop the students' learning skills?

4. While planning for the curriculum pathways, to what extent the curriculum choices is in alignment with the market needs?

Understanding Work Motivation Theories: Exploring work Motivation in the Educational Context

Dina Ibrahim Al Husseini
The British University in Dubai

Abstract

Motivation is an interesting and difficult subject that has fascinated scholars and researchers for years. The word is driven from the latin word "movere" which means "to move" (Tansky 2003, cited in Cinar, Bektas &Aslan 2011). In today's competitive world, the demands to explore employees' skills are extremely high. Organizations have a crucial job in improving performance and produce more effective outcomes. To do that it is important to try to understand human's behavior and what make employees want to do what they are doing. There are many motivation theories and one of the definitions for motivation is the internal force that guides, activates and maintains behavior over time (Slavin 2014).

Nowadays organization's achievements and success depend greatly on managers' role in understanding what motivate their employees and how to stimulate them in order to work efficiently (Cinar, Bektas & Aslan 2011). Motivation is a factor that can be applied in every single professional and many workplace situations. Jadvyga (2011) believes that "Employee motivation is particularly relevant because an appropriate employee motivation system eventually grants tangible benefits to any organization".

According to Deci &Rayan (2000) cited in Slavin (2014) It is a complex process that can vary in both intensity and direction and has been studied from many different approaches and on different levels individual, group and organization level. To understand motivation the focus of this research paper will be in exploring its theories and see their real life applications in general work places and then specifically in educational institutions will contribute greatly to our comprehension on how and what motivate teachers the most.

Methodology

The focus in this paper will be on understanding motivation and some of its most influential theories that has contributed in the educational context. An interest has been developed in this subject from the first module Teaching and Learning and again in Organisational Behaviour's module. In lecture eight the subject of motivation has been discussed lengthily and it is consider as a strong factor in improving performance and outcomes which is the ultimate goal for any organization. Articles were collected through the University library site. The research beneficial greatly from the journal articles, text books and two case studies that has been reviewed to deep understanding of the subject. The research started with a broad title of "motivation", "motivation theories" and then it was narrowed down to motivation in work place and finally to give it more scoops the focus was on motivating teachers. After reading and scanning, summarizing started and then reread again for deeper understanding. The main questions that have been looking for in the research are what are the most famous and influential motivation theories? And how they are applied in reality? How can motivation be measured and increase? What are the factors that can increase it or decrease it? And what are the factors that affect teachers' motivation? A great comprehension has been achieved in this research.

Literature Review

  For years scholars have developed so many theories about motivation trying to explore it secrets and understand it deeply across a variety of settings. There are a large number of theories in motivation some of them are modern and others are classic. Another way to differentiate between them these theories is according on what they focus on:
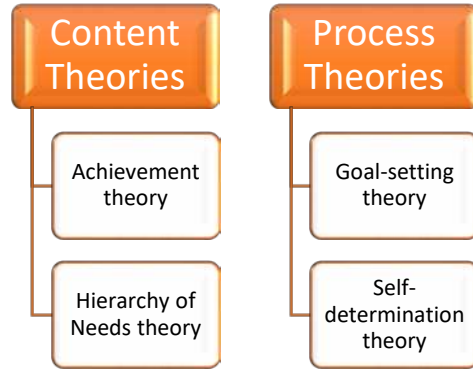
The content theories focus on what specifically motivate an employee and the nature of needs while the process theories emphasize the psychological factors that cause motivation (Cinar, Bektas & Aslan 2011).

Maslow's Hierarchy of Needs Theory

Maslow's theory about motivation is the most famous and influential in the field. On (1943) Maslow where he argues that people are wanting beings and that all human behavior is connected with needs that are arranged in a hierarchy order (Mullins &Christy 2013). These needs are: the physiological needs, safety needs, the belonging needs, love needs, esteem needs and at the top self actualization needs. Maslow argues that only unsatisfied needs are the one that motivate people and that once a need in the lower order is satisfied, and then a new need in upper level would emerge. The higher needs should start showing up whenever the lower needs are met. Another point about this theory is that the hierarchy is not a fixed order. For example, for some people self esteem may carry more values that love (Mullins &Christy 2013).
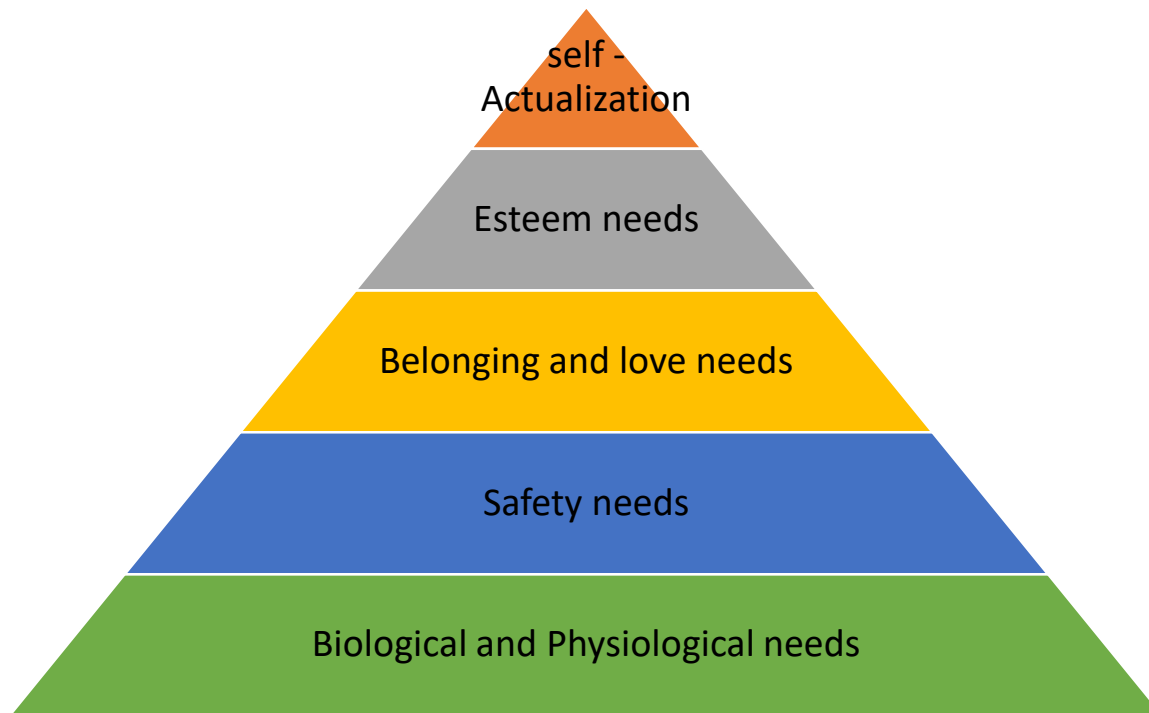
"When an inferior rank need is satisfied, the next level need becomes dominant, and the attention of the person is dedicated to the accomplishment of this higher rank need" (Cinar, Bektas & Aslan 2011). According to Slavin (2014) Maslow made a remarkable distinction between the kinds of needs: There are the deficiency needs as the physiological, safety, love and esteem, these needs are critical for well-being and once they are satisfy the need disappear while on the other hand there is the growth needs as self-actualization as the need to know, to understand, grow and develop which can never be completely full (Slavin 2014). Another important concept was added by Maslow is the concept of self- actualization which the person's desire to become everything he or she is capable of becoming. This theory is popular and widely used in work place especially in the developing countries, even though this was not Maslow's intention. Latham &Pinder (2004) criticized the needs theory on focusing only on why a person must act while they don't explain why they should act specifically in this way in specific situation. Another negative part for Maslow's theory is not to put into consideration the individual differences, it only assume that all people would act the same way in case of needs while in the current business world a great emphasis has been done on this subject. In applying Maslow's theory in work place as schools, leaders should always remember that once lower needs are satisfied they will no more be source for motivation, and the attention should go directly in trying to satisfy upper needs to motivate teachers

(Mullins &Christy 2013). For example, physiological needs in work place resemble pleasant working conditions and payment. While Esteem can be seen in job title, high status job, feedback and social recognition.

Self-determination theory (SDT)

Self determination is a work motivation theory that has received a widespread attention in many fields and education is one of them (Gagne&Deci 2005). Unlike Maslow's theory SDT suggests that employees need to feel a sense of relatedness, autonomy and a sense of competence to get motivated in the work place. Gagne&Deci (2005) argue that "the work climates that promote satisfaction of the three basic psychological needs will enhance employees' intrinsic motivation and promote full internalization of extrinsic motivation". This motivation theory states that behaviors depend on different kinds of motivations based on different goals or reasons that allow these actions to come up. There is intrinsic motivation (internal sources) and extrinsic motivation (external sources) which can both be sources for human behavior (Cinar, Bektas &Aslan 2011). According to self-determination theory intrinsic factors are keys to motivated behavior, if workers enjoy their work and consider it as interesting and fun, they will get completely engaged, face challenges and will be persistence to continuo the work and this is the whole definition for intrinsic motivation (Wyatt 2013). To reach this level employee should have a space for freedom where they don't feel pressure to do the task and this is called a sense of autonomy. When the employees conduct the task on his or her own choice without any coercion then they have a sense of autonomy (Yi Shu2015).

They also must have sense of relatedness and belonging to the place and the group of people they are working, and finally they should have a sense of competence which can contribute to their professional development by feeling of being capable of working and learning (Wyatt 2013).

Goal-setting theory

Another theory that can be very relevant to work performance and enhancing employees' motivation is goal-setting theory. This theory was firstly presented by Locke and Latham on (1990). The basic concept for this theory is to set a goal with specific conditions in order to enhance workers performance

and motivation (Mullins &Kurose 2013). It has been argued that "Goals direct work behavior and performance and lead to certain consequences or feedback" (Mullins &Christy 2013, p.268). The most effective goals are the more difficult and specific .Kurose (2013) claims that "Goals are effective motivational devices because they tend to promote behavioral patterns that are conducive to high performance and success". When goals are clear and specific, which is one of this theory's conditions, this help employees to focus, do extra efforts and persist chasing the goal. The goals plus being specific they should be challenging with a certain degree of complexity, but at the same time they should still be reachable and not impossible.   There should be a continuous feedback, monetary incentives, goal commitment and specific time limit for achieving the goal. This theory which has been developed on the 20th century has been used successfully in motivating people to work in different organizations (Mullins &Kurose 2013).

  Also, feedback should be related to the task itself not the people who did the task. They should be positive aiming for performance improvement, include information of how to improve the work, and they should be integrated into a formal goal setting plan. Making employees committed to the goals can be done by leaders sharing their visions and goals with their employees, or by making a public commitment toward achieving the goal (Mullins &Kurose 2013).   Another term which is strongly connected with goal setting theory is self efficacy. (Latham, 2007 cited in Kurose, 2013) defined it as "the believe an individual holds about his or her capability to succeed, correlates with both higher goals and stronger commitment to them". Kurose (2013) claims that high self efficacy; high expectancy of achieving the goal, the attractiveness and the specificity of the goal can all contribute in higher level s of commitment to goals lead to high performance (Wright &Kacmar 1994, cited in Klein et al. 1999). When people are confident in their abilities that will lead to better performance, better abilities in facing challenges and that leads to greater efforts.

(Lathman et al 2002, cited at Latham &Pinder 2004) explain the high performance cycle:

Feedback:

Feedback is a very effective technique used by high self efficacy people to improve focus, motivation and performance. In goal setting theory feedback can be used to moderate the goal effects. In Australia as example managers with high efficacy tended to change their behavior positively after receiving feedback (Latham & Pinder 2004). On the other hand when feedback is negative and attacks the persons' character not performance it coul lead to low motivation.

Intrinsic and extrinsic motivation:

Intrinsic motivation is defined as "performing an activity for no reward except the direct enjoyment of the activity itself". (Deci et al. 1999, cited in Li-Ping Tang et al. 2007). When the task itself will bring enjoyment, achievement, recognition to the employee without mentioning the rewards then we are talking about intrinsic motivation. While *extrinsic motivation* are the tasks that employees do in order to gain separable outcomes (Cinar, Bektas & Aslan 2011). Its believe that both types are important and needed to improve motivation and performance in organization (Reinholt 2006).

Intrinsic Motivation

In intrinsic motivation people get engaged in doing an activity that causes them a great satisfaction because they find the activity interesting and fun (Gagne & Dec 2005). Intrinsic motivation is also defined as **"**the doing for an activity for its inherent satisfaction rather than for some separable consequences." (Ryan 2000, cited in Yi Shu 2015). According the self –determination theory which is one of the most influential motivation theory, people would feel motivated when they are doing a work that allow them to satisfy one of the following needs: relatedness, autonomy and competence . These three needs are related to intrinsic motivation and satisfying them will result in exhibiting high level of performance (Yi Shu 2015). Intrinsic motivation needs are connected to the independent view of the self. When employees are involved in work environment that promote satisfying these basic psychological needs that will eventually leads to positives outcomes, job satisfaction and effective performance (Gagne & Deci 2005). It is very important to ensure a big space for freedom in choice in order to enhance workers' intrinsic motivation.

Intrinsic motivations are also related to psychological rewards as receiving appreciation, positive recognition, having a sense of achievement and challenge (Mullins& Christy 2013).

Extrinsic motivation

Extrinsic motivations are related to tangible rewards as salary, promotion opportunities, security, and relations with peers and conditions of work. These extrinsic motivations do have strong impact on organizations' employees. It is a very strong tool that schools' leaders can use to enhance their teachers' performance. There should be according to (Gkorezis & Petridou 2012) specific conditions to use each kind of these incentives in order to get the maximum benefit from. Managers face everyday a hard task to decide how and what proportions of motivation they could use to enhance and improve employees' performance (Tampu 2015). Schools' leaders should not only depend on intrinsic motivation to ensure teachers' performance, sometimes using extrinsic incentives can help greatly in achieving this goal.

Financial Incentives

One of the main financial incentives that organizations around the world are using is money. The majority of people agree that money is important and is a motivator, but how important depends on other factors. Tampu (2015) claims that money has greater value for those employees who personal circumstances as having families to support. Also it is believed that money can help stopping employees from looking for another job. To consider money as an influential motivating factor the amount should be relatively larger than the basic salary or income. Also Tampu (2012) argues that the bonuses or salaries that employees get should be considered according to their individual performances. The nature of financial incentives in order to have an obvious increasing in motivation depends on one of the elements:

1. The nature of the activity
2. Conditions of the work
3. The employees' expectations
4. The level of employees training (Pandurean 2004, cited inTampu 2012).

It has been argued that "rewards that are associated with employees' performance and competencies can enhance both individual and organizational effectiveness" (Lawler 1994, cited in P. Gkorezis & E. Petridou2012). When employees know in advance the payment system which is based on performance not on job position, this will positively contribute in enhancing employees' motivation and abilities and get them more involve in the organization. (P. Gkorezis & E. Petridou 2012).

J. Stickler (2006) believes that in the current business world situation, there is a great dependence on the concept of rewards and punishment, a concept developed by B. F. Skinner on 1930. The theory says that people strongly get motivated by the concept of earning more money which is as extrinsic incentives as bonus program, merit pay plan, annual performance review and others as a different form of operant conditioning. The problem with these forms is that the positive results are short – term in the work place, also financial rewards may cause big damage in the employees' relationship because of the internal completion for the rewards. When people are expecting rewards such as monetary or any satisfaction as self- esteem which is a higher order needs, they will show a higher level of commitment to the work and this is linked with Maslow's theory of needs (K. Dartey-Baah 2010).

On the other hand when there is a shortage in the financial incentives this will surly affect employees' motivation. When a worker feels he or she is not getting what they deserve to get, and when they believe that their organization has no organized planning rewards that will leave a huge negative impact on their motivation. A study done on Oman by M. Wyatt (2013) shows teachers' motivation crisis in this developing country is highly associated with insufficient salaries. Low salaries reduce teachers' sense of autonomy and put teachers under great pleasure and result in poor performance, absenteeism and might push teacher to leave their career (Wyatt 2013).

Emotional Incentives

Another effective technique to increase motivation is emotional incentive. Managers should use specific approaches and methods in applying it to individuals and groups. The emotional incentives according to D. Tampu (2015) could be in the following forms:

- Public praising in meetings and in front of the work team.
- Laudatory articles in the press
- Adding professional titles or honors
- Promotion to higher position
- Increasing the depth and scope of their jobs

One basic condition of the emotional incentives that Tampu (2015) believes should be presented to achieve the highest advantage is the previous knowledge of the incentives values from the employees' side.

Motivation Theories and Teachers' performance:

   Can we increase teachers' performance through intrinsic and extrinsic motivation? And which one is more effective? In one interesting study done by Tampu (2015) concluded that mangers carry on the most difficult job in choosing the proper incentives that match the employee's character and personality. People are different and they cannot be treated or motivated at the same way or the same level. Managers should use the two kinds of motivations smartly. At the end teachers as any other employees have

different needs, and satisfying these needs as it was explained in Maslow's theory will help in motivating them. One of their basic needs is good pay.

Tampu (2015) suggests that the first reward employees look for is money. Another need that people always look for is the need for interesting job, to get this feeling the job must require some level of challenge, stress and autonomy. The level of stress varies from one person to another and from one situation to another. Too much stress decrease productive thinking and increase low job performance while low stress level cause boredom, dissatisfaction and frustration. The autonomy which is related to self – determination theory is to give teachers the freedom to use the preferable teaching styles, materials and goals that he or she preferred. Their school organization and their collogues should perform a friendly community that the teachers feels related to. The career must provide a chance for the teacher to develop him/herself professionally and gain more experience.

Another way to increase employees' motivation is under the frame of the goal theory where managers have to set precise goals, with a time limit and the goal has to be challenging but possible to be achieved. The best way to ensure intrinsic motivation is to create a cooperative, encouraging atmosphere that provides productive working conditions for employees to work in. Managers should decide what the employees' needs are and according to that they choose the right incentives.

Review Study 1:

In order to explore teachers' motivation a review for a case study was conducted. The case study is a review by M. Wyatt (2013) under the title of "Motivating Teachers in the Developing World: Insights from research with English Language teachers in Oman". As one of the developing countries teachers in Oman are facing many challenges that affect their motivation and cause a motivation crisis.

The author addresses the problem in the abstract and in the introduction by taking a general look at all the developing countries and then specifically in Oman.

To address the issue of Omani crisis motivation, qualitative research methods were reviewed by the author. It included observation, followed by semi- structured interviews which lasted for 40-50 minutes in length. Finally, teachers completed reflective assignments for the BA TESOL. The combination of methods was helpful, but it is criticized for selecting the participants from the same age group and from

the same region. The other study that Wyatt reviews in this article was another study conducted by Al-Balooshi (2009). It included a 31 questionnaire and followed by an open end questions in an interview that lasted for 45 minutes.

Results and Data Analysis

The two studies illustrates that Omani teachers face negative environmental and social elements which affect their sense of autonomy, relatedness and competence andas a result reduce their intrinsic motivation.

Wyatt (2013) states that the Omani government supported the education sector through the rapid increasing number of schools' building, establishing colleges for teachers' training, providing schools with all the required equipments as computers and whiteboards and giving teachers a great opportunity to upgrade their diplomas to Bachelor degrees. With all these supportive changes Omanis' teachers would still suffer due to some social and environmental factors that negatively impact Omanis' teachers' motivation.

The first factor that was detected in the study goes back to teachers' salary. Nearly half agreed their salaries were insufficient because they live in extended families (Al-Habsi 2009, cited at Wyatt 2013). Another factor is working in distant region especially for new teachers which affect their sense of relatedness and eventually reduced their intrinsic motivation.

The working conditions that Omanis' teachers work in would not be considered comfortable. Teachers suffer from lack storage space or some old building that needs maintenance. Pleasant working conditions according to Maslow affect the lower physiological need and result in reducing the sense of autonomy (Mullins &Christy 2013).

According to (Al-Habsi & Al-Issa2009, cited in Wyatt 2013) heavy workloads with five periods per day are the biggest challenge for Omanis' teachers. Also restricted curriculum where teachers have to follow detailed lesson plan would also contribute in reducing teachers freedom and creativity in choosing the materials, adjusting curriculums and choosing the preferred teaching methods all of this affect teachers' intrinsic motivation and sense of autonomy. Teachers also feels neglected regarding professional development short courses. These courses are very beneficial to develop a sense of

competence, but Omanis' teachers complain of the limited available places. Poor relationships with parents and schools administrations that can reduce sense of relatedness as Al-Habsi (2009) claims is another important factor that affect on Omani's English teachers' motivation and reduce it and causing a motivation crisis.

As a conclusion for this study it was recommended to give teacher in Oman more freedom and flexibility with the tasks and materials, especial attention on schools environment which should be supportive and friendly. Further research in motivation is required according to the author.

Review study 2:

The second study is under the title of: "The Role of Altruism in the Motivation of English Language Teachers" by Nesrin Erturk (2013). The purpose of the study was clear in the abstract which is identifying the teachers' sources of motivation and the scoop was on altruism as another source of motivation. The author has identified the following as factors that affect English Language teachers' motivation: deriving enjoyment from work, a positive atmosphere in school, teachers' realization of their potential and finally the recognition of their achievement and their students' success. According to Ofoegbu(2004) cited in Erturk (2013)The importance of the study was driven from the fact of considering " teacher motivation as an essential factor for classroom effectiveness and school improvement" .

In this research the focus was on identifying altruism as a motivational factor. The concept of motivation for teaching and helping students to learn depends on altruism, and in contrast of other previous studies this study intended to explore if altruism is a source of motivation in Turkeys' educational institutions through a designed questionnaire. The other questions that the study aimed to answer are: what are the main sources of motivation for English Language teachers in Turkey? And do these sources get affected by gender, age, institution or level of teaching?

Participants of the study were (295) from both private and state sector, (84%) were female and (16%) male. From the 295, 118 were in the 20-30 age group, 112 for the 30-40 group age and 46 for participant between 41- and 50. The instrument that was used here was adapted from Kocabas (1999). It was reliable instrument.

The findings were that Turkish Language teachers get motivated mostly by intrinsic motivation factors as enjoying their job which scored 227 as a number of participants strongly agreed. The second important factor which was a reflection of extrinsic factor was the friendly, positive school atmosphere for (222), and then came the factor of realizing the potential of my work with (211). Recognition of my success came in number four with (206), and finally the fifth factor was the success of my students (204) which is the only altruistic factor.

As a conclusion from this study, teachers get affected by both types of motivation. Therefore, schools' role is to enhance intrinsic motivations which are more powerful while at the same time take into account factors related to extrinsic motivation. The author believes that greater efforts to increase teachers' moral and motivations should be done to achieve a higher quality in education. It is very important to give teachers in Turkey the space and chance to enjoy their work in friendly, enthusiastic and cooperative atmosphere. It is also crucial to let their achievements to be recognized by both the organization and students.

Conclusion

As a conclusion for this research, a greater and deeper understanding for motivation and its theories has been acquired. It is interesting to study the different most influential theories in motivation and see how they affect employees' lives as teachers to a great degree. From the two review studies it was clear that both kinds of motivation are important, but intrinsic factors were obvious to be more affective. Having a sense of relatedness, sense of competence and sense of autonomy can increase the quality of teaching. Teachers who enjoy their work in a cooperative friendly atmosphere are more productive. Intrinsic factors as recognition of achievement, autonomous space with task and materials and teaching styles can all increase teachers' self efficacy, job satisfaction and motivation.

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Instructors' and Students' Perceptions of the Integration of Technology in Higher Education Institutes of Middle East

Elezabeth Mathew

The British University in Dubai

Abstract

A recent study (U.S. Department of Education 2016) showed that student's proportion of using digital technology has increased drastically but does not really imply that learners like to study using digital technology. In order to extend this study the researcher's effort is to investigate if teachers and students find it effective and helpful to have a technology integrated classroom. The study is experimental research, as the campus being considered already has technology blended courses for all majors. The sample consists of 80 students and 30 faculty of Computer Information Systems (CIS) department in one of the Higher Education Institute of Middle East (HEIME). A questionnaire with quantitative and open ended questions for qualitative analysis was given to students and teachers. A mixed method approach is implemented to get a holistic view of teachers' and students' perceptions. The result is as expected that both teachers and students would agree to have integration of technology in most of the courses. Moreover, teachers pointed out some challenges they might have to face for effective integration. The results also showed that teachers thought it was helpful and effective to have technology integrated classrooms. At the same time, it is recommended that teachers would need professional development courses as an when a new technology is introduced and someone dedicated to train them. Another major outcome is to have a policy which clearly identifies the percentage of integration needed

for each type of course. In addition, students felt motivated and involved while learning using digital technology.

Acronyms/Abbreviations

HEIME- Higher Education Institute of Middle East

CIS – Computer Information Science

ICT – Information and Communication Technology

TIM – Technology Integration Matrix

FCIT – Florida Center for Instructional Technology

TPACK- Technological Pedagogical Content Knowledge

IT – Information Technology

IL – Information Literacy

1. Introduction

There are a various discussions and article studies (Bernasconi 2015; Mary 2016) about the effects of technology, especially in education. Also, there has been lot of research in recent years to assess the constructive side of learning using technology. Enormous resources have also been used to find the rationale for using technology in education which has revealed that teachers, students and other stakeholders benefit from this trend in education (Delannoy 2000).

Many countries have accepted the benefits of technology in education and admitted the fact that technology plays an important role in acquiring jobs in the 21st century and leading a happier life

(Simmons & Walker 2013). Potential candidates looking for jobs need to be more aware about computers to be eligible for positions. Now, natural resources are not considered the most factor affecting the economy but it is a knowledge-based and information-based economy. This is what nations are striving for. To achieve this target, every nation needs a workforce skilled in technology to excel in their global economy, so the point is not whether we need technology blended learning or not but the concern is when and how to have technology integrated education for an institution (Vikashkumar 2010). Therefore, the HEIME also has to keep a fast pace to compete in the global economy in terms of having technology integrated education for its citizens (Lo 2013).

Little data is available in developing countries, but lots of research in this area has been done in developed countries (Weng 2016). Hence, it becomes handy for the countries who wish to adapt the idea to do that more easily by adapting the ready-made skills and expertise from the established countries. However, technology integration will still need lot of consideration before its actual integrations and has to be done in a systematic and well-planned manner (ibid).

This study makes an effort to find how higher education in the Middle East can adapt and integrate the knowledge gathered by different countries who have already gone beyond making the jump to ICT integration trend and established the benefits. This paper will first discuss previously published papers and then make a link to established educational theories. To achieve the aim of this study, a mixed questionnaire is given to students and teachers of one of the HEIME to collect information on their perception of the integration of technology, its use and effectiveness. This study will be unique in the fact that such a study is the first of its kind in the HEIME. In this study, the term technology is used to denote any type of computer systems, www and internet, telecommunication devices and software.

1.1 Statement of the Problem

Technology integration is recommended not to replace the traditional teaching environment but to enhance the teaching and learning experience in the 21st century (Wery & Thomson 2013; Doherty 2016). Technology integration should be in the form of support to attain the objectives of the course outlines effectively and efficiently and make the students ready for employability.

The purpose of this study is to investigate the students' and instructors' perceptions and importance of ICT integration in Higher Education. Integrating technology into education will give students and teachers an opportunity to explore and positively involve with teaching and learning (Vikashkumar 2010). Integrating ICT into the classroom can benefit students in various ways (ibid). For more details see section 1.3.

1.2 Research Questions

To meet the purpose of the study, research was conducted with the following objectives:

Find teachers' perceptions of technology integration in HEIME.

a) Find students' perceptions of technology integration in HEIME.

b) Describe the importance of having ICT integration at HEIME.

c) Describe the level of ICT integration required at HEIME.

1.3 Rationale for the Study

ICT integration has lot of advantages in the 21st century (Vikashkumar 2010).

- ICT will provide students with a motivational factor to be engaged and involved in the lesson and thus it enhances the learning experience of students.

- ICT will motivate and challenge teachers in making the instruction easier.

- ICT will also make teachers' administrative task easier.

- Communication and collaboration is at its heights when using technology.

- Knowledge and skill in ICT will give more job opportunities for young leaners.

However, ICT integration may sometimes be challenging as it should match the requirement of particular institution and the courses being delivered (Atkins 2010). So a clear plan for implementation should be emphasized. Planning is necessary not just to integrate ICT with the course but also to deploy and enhance culture of education.

1.4 Purpose and Objective

It is evident from the earlier mentioned study that integrating technology is very important. The researcher's effort is the get perception of teachers and students at one HEIME and to analyze if they too think it is helpful and effective in having technology integrated classrooms.

2. Literature Review

Integration of technology is considered an integral element in 21st century education (Takeda, Aoshima & Nobeoka 2012). Technology integration gives universities more flexibility and opportunities (Guzman & Nussbaum 2009). The outcome is conceptually a better stronger scholastic know-how than either old-style or fully contemporary online culture can offer (ibid). Course design would be between a low or high range of effective information or between proactive or reactive creativity (Runco and Pritzker, 2011). Technology integrated courses are reported to have low student withdrawal rates and comparable or better success rates then other traditional courses (Guzman & Nussbaum, 2009).

2.1 Conceptual Analysis

Enhancing education through technology is a modern idea, it has replaced officially in some countries as achievement through technology and innovation due to the massive possibilities technology

integration can promise (Bray & Tangney, 2015). The Technology Integration Matrix (TIM) (Appendix A) developed at Florida Center for Instructional Technology (FCIT 2011) offers a framework for unfolding and steering the effectiveness of technology to improve education.

> "The TIM incorporates five interdependent characteristics of meaningful learning environments: active, collaborative, constructive, authentic, and goal-directed. These characteristics are associated with five levels of technology integration: entry, adoption, adaptation, infusion, and transformation" (FCIT 2011).

With these 5 levels of integration and learning environment a matrix of 25 cells is created. The different components in the TIM are evaluated in the teacher's questionnaire to see if these components really matter to teachers. The components that are evaluated are mentioned above as the learning environment and five levels of technology integration. Furthermore, the presentation and usefulness of technology from TIM's point of view is narrated below.

Presentation of technology: Even if the classroom is equipped with hardware and software the application of technology really depends on the awareness and talent of the teacher, and learners can benefit from this assistance and enhance the use of technology within the curriculum (Lee and Sparks, 2014). It is still not very clear how the instructor is supposed to use the technology available in the classroom. The TIM developed at Florida Center for Instructional Technology (FCIT 2011) helps the instructors evaluate the level at which the implementation of technology integration has to be used in a course.

Use of Technology: Nowadays, many classrooms are equipped with a smart board and learner either have access to table PCs or the institution promotes Bring Your Own Device (BYOD). So in any case students and teachers often have access to hardware and software. Technology inside the classroom

becomes productive and useful only if the curriculum is designed in such a way to apply critical thinking skills using technology (TIM, 2011).

TPACK: Technological Pedagogical Content Knowledge is considered suitable in execution of technology in teaching and learning (Yeh et al., 2017). Teachers irrespective of gender had similar perception on TPACK elements as per a study done by Kazu and Erten (2014). Context influence on TPACK knowledge is given in Fig 1.
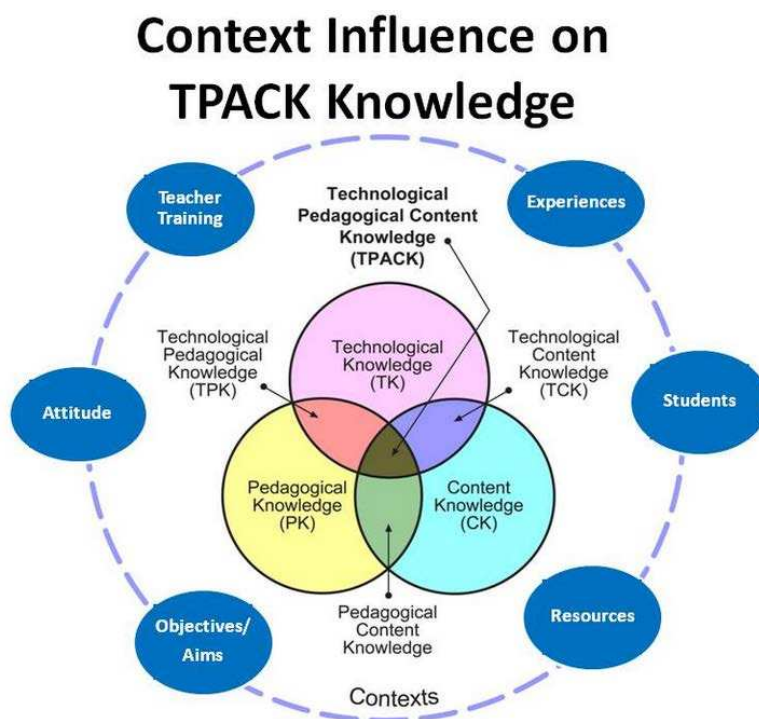
Fig 1: (Koehler & Mishra, 2009)

- Technology knowledge (TK): The thoughtfulness of technology, tools and resources and integrating all these are considered TK as per Anderson (2017) by making productive and goal oriented activities and continuously adapting them to a suitable scenario(Koehler & Mishra, 2009).

- Pedagogical knowledge (PK): PK is considered the inter-relating purposes, ethics and goals of scholastic purposes using best practices. It also includes classroom management skills, lesson planning and student assessment as part of teachers knowledge (Koehler & Mishra, 2009).

- Content Knowledge (CK): CK is clearly knowing the knowledge about the subject matter, the differentiation between what to teach in school and in university for the same topic. This knowledge would include notions, principles, thoughts, structural outlines, information of proof and methods in increasing such knowledge (Koehler & Mishra, 2009).

2.2 Review of Related Literature

The major reason for integrating technology in education is the success element expected in the form of superior students themselves who are ready to be employed (Takeda, Aoshima & Nobeoka 2012). Technology is integrated in many institutions across the world (Turel, Calık & Doganer 2015) and higher institutions have already adapted the use of technology (Arya, Singh and Agrawal, 2015). HEIME have adopted this in order to be up-to-date in this digital age (Zhang et al., 2014). Therefore, it is presumed that education at Higher education institutions should react to cultural loads and changes to accommodate the digital-literate with intelligence and well-organized learning preferences (Svensson and Baelo, 2015).

The accurate use and efficient integration of technology is vital to any Higher education institute (Keser, Karaoğlan Yılmaz and Yılmaz, 2015). The efficient use of technology can only be made certain if students gain the skills and competencies required for employability which can be delivered effectively by having teachers who are knowledgeable in content, technology and pedagogy at the same time. Instructors also improve their self-efficacy through communication and collaboration (Keser, Karaoğlan Yılmaz and Yılmaz, 2015). According to the study done by Kazu and Erten (2014), instructors' self-

efficacy perception of TPACK did not alter as per the availability of privileges to the internet in the school in which they worked, and their efficacy was satisfactory. Also, they stated:

> "Educators who believed that their self-efficacy in the use of internet was sufficient had higher levels of self-efficacies in TK, TCK, TKP and TPACK [see Fig 1] compared with other teachers".

Turel, Calık and Doganer (2015) study recommendations are to give complete access to technology in terms of (1) well-organized resources and technology accessibility, (2) to deliver effectual technology based courses and (3) to integrate them into education. In addition, the study done by Guzman and Nussbaum (2009) listed a number of factors that enhance knowledge for students and teachers at the same time. Six domains of teaching are narrated clearly which are given a lot of emphasis here as they support the TIM framework.

Comparing TPACK and TIM

Three technological domains are written below:

- o Master the use of technology and technological resources.
- o Develop technical and cognitive capabilities.
- o Analyze and produce information using technology.

Active participation and constructing information using technology is 2 interdependent characteristics of meaningful learning according to TIM.

Three pedagogical/curriculum domains are:

- o Creating judgments that explain the educational purpose of the technology's use within various scholastic paradigms.

- Incorporating the technology's use with the expansion of a specified pedagogical and curricular proposition.

- Efficient formation of the technology's application so that it is commonsensically integrated into teaching space.

Adoption and adaptation specified here are two levels of technology integration in TIM.

Three didactic/methodological domains are:

- Planning solid technology uses as part of the teaching process and reinforcing the pedagogy.

- Encouraging learners through the application of technology implements and making a balance with the pedagogical resource.

- Producing a motivating and collaborative learning atmosphere over technology integration in the classroom.

Collaboration and goal-oriented learning is considered as meaningful learning as per TIM.

Three evaluative/investigative domains are:

- Applying valuation replacements that are rationally combined with both the teaching plan and the technology implementation.

- Thorough examination of students' learning and giving opinion in a timely manner while at the same time assessing the importance and efficacy of the integration of technology in teaching and learning.

- Activating self-evaluation procedures which reflect his/her principles and methods of teaching practices concerning technology integration.

Infusion and transformation are part of different levels of technology integration specified in TIM.

Thus, the six domains specified are very important and all of them are evaluated in TIM. The survey result will reveal if teachers consider all these in their teaching platform.

3. Theoretical Consolidation

In this section Badura's social cognition theory and Piaget's & Vygotsky's theory of learning are linked together to make relevance to support the Technology Integration Matrix.

Social Cognitive Theory:

> "A person's cognition, environment and behavior play important roles in learning new knowledge and skills (Bandura, 1999)".

According to Morrison (2012), in social cognition theory, social inspiration and accomplishment are presumed to be built on three categories of expectations: "situation-outcome, action-outcome and perceived self-efficacy".

Situation outcome expectancy: represents beliefs about which consequences will occur without interfering with personal action.

Action-outcome expectancy: is the confidence that an agreed performance may lead to a specified result.

Self-efficacy expectancy: is the certainty that a performance is within a person's ability.

As per Piaget's theory of cognitive development, 'experience' is very important for development (Eggen 2013, Eggen & Kauchak 2004) as these challenges will make a change in the way of thinking and thus

help in development. Experience with the physical world and experience with other people are the most important developmental happenings (Frith 2012, Eggen 2013). With experience, our mental operations (schemes) match or mismatch happens to people and they either assimilate (that is try to extend the existing schemes) or accommodate (that is people create a new scheme) (Peters, Rowat & Johnson 2011, Eggen 2013). Studies integrated with technology would give students experience with the physical world when they start using the hardware components to get the input data using a keyboard, mouse, joystick or even touchpad. Also, integrated technological learning will provide a great deal of collaborative activity which will support students' experiences with other people. In general, learners will assimilate and accommodate new schemes resulting in cognitive development.

Lev Vygotsky's sociocultural theory of cognitive development states that social interactions will definitely result in development of the learner (VanPatten & Williams 2015, Eggen 2013). He also specifies in the zone of proximal development that anything that is assisted by others can be accomplished especially if it is an adult assistant or in collaboration with capable peers (Eggen 2013, Rathus 2013).

Cognitive learning theory suggests that to learn something effectively you need experiences with the item that you are willing to study (Knowles, 2015, Eggen 2013). By having technology integration teachers can provide experiential learning to students for cognitive development (Eggen & Kauchak 2004, Ekanayake & Wishart 2014). Cognitive and social learning results in constructing knowledge to make logic of practices (Thitima &Sumalee 2012, Eggen 2013). These experiences will be gathered by active participation and effective collaboration. The end result of technology integrated learning is goal-oriented and authentic learning by self-motivation (Tezer, Özden and Elci, 2016).

Abbitt (2011) in his study found that a correlational analysis acknowledged numerous knowledge domains in the TPACK model that the researcher found to have a significant and positive correlation with self-efficacy beliefs about technology integration. The exploratory study also revealed the changing nature of the complex relationship between knowledge and self-efficacy beliefs and highlighted the potential areas of knowledge in TPACK domains that influence preservice teachers' beliefs about technology integration. Samarji (2015) states that an instructor with in-depth pedagogical knowledge appreciates learners construct knowledge and attain skills and help students in their holistic development. Also, pedagogical knowledge needs thoughtfulness of cognitive, social, and developmental theories of learning and how it will benefit a cohort of learners. Thus technological and pedagogical knowledge involve a progressive, inventive and liberal looking for technology use, not just because it had to but for the rationale of having advanced student learning and comprehension (Voogt et al., 2012).

4. Methodology

4.1 Research Approach

The researcher carried out a mixed methods study where qualitative and quantitative research techniques were done simultaneously. The primary philosophy of mixed research is pragmatism (Balnaves & Caputi 2001). The mixed approach is considered good to have multiple viewpoints and standpoints of the given study. In this study the research is trying to reveal the perception of students and teachers on the integration of technology and so the study might be a little descriptive in nature.

The study can be considered a cross-sectional experimental techniques. The study is experimental as it focuses on students in one campus of one of the HEIME which already follows technology blended learning.

4.2 Instruments

The instrument for the study is questionnaire that has quantitative questions and some open ended questions. Therefore, the study can be little descriptive in nature as well. At the same time an intense data analysis of collected data is done and basic data representation using bar chart and percentages.

Participants were students and teachers of one campus of HEIME and the study was done during month of the second term of the academic year. A questionnaire was given to both teachers and students with few open ended questions. The questionnaire was adapted from a published survey research (Teacher Questionnaire on the use of Information and Communication Technology (ICT) 2015). Questions are adapted for the use of students and teachers involved with it (see Appendix B & C).

4.2.1   Questionnaire for teachers:

It has five major sections and in total 40 questions. The 5 sections in the questionnaire are:

    I.   Demographic details.

    II.   Perceived effectiveness of ICT (information and communication technology) use in the course.

    III.   Helpfulness of the website elements in Learning Management System.

    IV.   Elements of the Technology Integration Matrix (TIM).

    V.   Open ended questions on the teacher opinion on ICT impact.

Sections 2 & 3 will give a clear perception of teachers on technology whether they find it effective in classroom and if it is helping students and themselves. Section 4 will evaluate learning environments

and 5 levels of technology integration mentioned in TIM to reveal how much use of technology is done in the classroom and based on this the researcher will draw conclusions on levels of technology integration required for the course.

4.2.2   Questionnaire for students:

It has four major sections and in total 36 questions. The 4 sections in the questionnaire are:

   I.   Demographic details

  II.   Personal computer use

 III.   Attitudes to technology

 IV.   The use of ICT in class

Section 2 will give as a precise idea how much use of technology students they do on a day to day basis. Section 3 reveals students attitude towards technology and having technology blended classroom. Section 5 will exposes their perception on the helpfulness of technology in studies.

All survey results are displayed in Appendix section.

4.3 Data Analysis

While analyzing the results strongly agree and agree Likert scales percentages were calculated together and neutral percentage was ignored. Similarly strongly disagree and disagree percentages were calculated together.

4.4 Results & Discussions

4.4.1 Students Survey Analysis

For the students survey 95% were between 18-25 and 95% of the students were in the computer science department. All are national students studying in one of the HEIME.

Using computer technology was necessary for me to do well in the courses.

(%) 49 29 8 8 4

1 2 3 4 5

Computer technology is used in all courses.

(%) 49 29 10 12 0

1 2 3 4 5
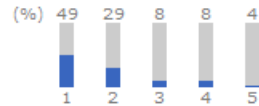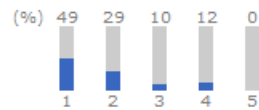
Almost 60% of the students strongly agreed that they use technology on a daily basis and they find it useful, helpful and effective. For the question "I use a computer in studies not because I had to but because I wanted to", more than 50% of students said they used not because they had to. The majority (83%) of students believed that using technology improves the quality of work and at the same time it is necessary to do well in the course. This shows that students are actively participating and developing their knowledge in a positive way. This validates Piaget's theory of cognitive development.

I'm very confident when it comes to working with technology at home/at work/at university.

(%) 58 27 8 6 0

1 2 3 4 5

I want to learn more about using technology at home/at work/at university.

(%) 52 23 14 6 3

1 2 3 4 5
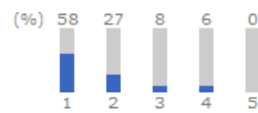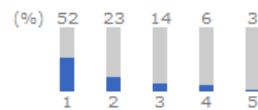
70% of students surveyed have a positive attitude towards the use of technology. Only 30% of them said they will avoid using technology in the class. Almost 60% of students believe that technology can help them to learn new things. More than 80% of the students agree that technology is very useful in the class and 86 % of them said technology is helping them to solve complex or abstract concepts. The also said that it helps them to have very effective collaboration with peers and instructors. This validates Vygotsky's sociocultural theory of learning.

Classes that use ICT are more likely to focus on real-world tasks and examples.

(%) 42 36 14 6 1
1 2 3 4 5

Classes that use ICT allow me to take greater control of my class activities (e.g., planning, time management, noting success and failure)

(%) 36 32 26 4 1
1 2 3 4 5
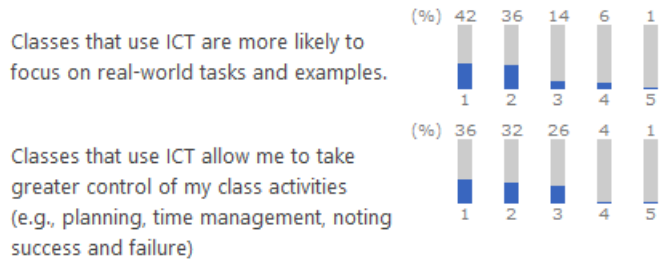
76% of the students said they feel it is goal-oriented and self-motivating to study using a technology integrated environment. Also, they believe it is related to real-life activities and therefore, related to assimilating or accommodating experiences for cognitive development.

4.4.2 Teachers Survey Analysis

52% of teachers surveyed were male and the rest females. 70% of them have ages ranging from 30 to 50. 76% work in Computer science department having more than 10 years of experience. 75% of participants were non-nationals.

Overall, how effective was computing technologies in your course(s)?

(%) 52 32 12 0 0 0
1 2 3 4 5 N/A
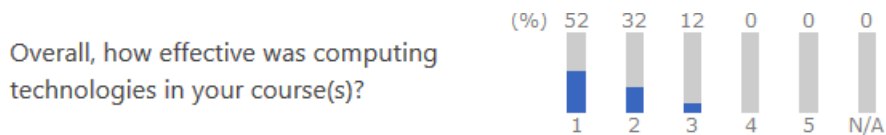
84% of teacher participants believe that technology integrated learning is effective and even the learning management system used in the college is helpful. More than 90% of the instructors agrees that it is very helpful with making exams, quizzes, tests or review sheets. Almost 60% of teachers believe that those course without the integration of technology should be made as a technology integrated course to deliver it more effectively. Furthermore, 90% of them agreed with having effective communication and collaboration amongst students and peers by the use of technology.

Creating and/or managing of test/quiz/exam or review sheets

(%) 84 8 8 0 0 0
1 2 3 4 5 N/A
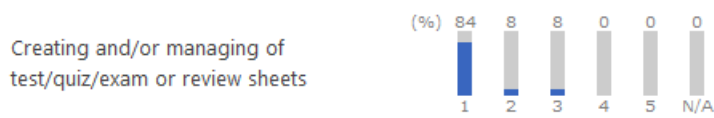
More than 70% of instructors believe that the LMS is helpful in managing homework, assignments, gradebook, syllabus, weekly breakdown calendar, links to non-library contents and e-reserves. Overall, the survey results show that students gain a great deal out of integration of technology by having a high quality course delivery and students show progress in the course. The survey result reflects Piaget's cognitive development theory and Vygotsky's sociocultural cognitive theory of learning.

In the following table each component in the TIM is examined to see if those components are required as parts to decide the level of technology integration required in each course.

Now, the learning environment with which technology integration one would like to use for the course needs to be evaluated. For example, if the course is just entry level and students actively participate, this means that students use technology for drills and practice and computer based training, so very minimal integration is required. At the same time if the course is transformative with a goal-oriented learning environment, then a high level of integration of technology is required. Therefore, teachers who teach the course should decide the level they would like to integrate by making the matrix components and finding out the accurate level of integration. In this study, it is understood that most of the teachers want at least 60% of the courses to be integrated with technology. This could be because most teachers surveyed are already working in the computer science department.

Technology Integration		
Characteristics	Description	Percentage of teachers' who agreed that they practice this component in the class
Entry	Teachers use technology to deliver curriculum content to students.	64%
Adoption	Teachers direct students in the conventional use of tool-based software. If such software is available, this level is the recommended	60%
Adaption	Teachers encourage adaptation of tool-based software by allowing students to select a tool and modify its use to accomplish the task at hand.	60%
Infusion	Teachers create a learning environment that infuses the power of technology tools throughout the day across subject areas.	68%
Transformation	Teachers create a rich learning environment in which students regularly engage in activities that would have been impossible to achieve without technology.	64%
Learning Environment		
Characteristics	Description	Percentage of teachers' who agreed that they observe this component in the class
Active	Students are actively engaged in using technology as a tool rather than passively receiving information from the technology.	50%
Collaborative	Students use technology tools to collaborate with others rather than working individually at all times.	68%
Constructive	Students use technology tools to build understanding rather than simply receive information.	52%
Authentic	Students use technology tools to solve real-world problems meaningful to them rather than working on artificial assignment.	50%
Goal oriented	Students use technology tools to set goals, plan activities, monitor progress, and evaluate results rather than simply completing assignments without reflection	50%

Table displays results of technology integration matrix components by teachers

Instructors' responses on exposure to and use of ICTs affect future employment are as follows:

➢ Technology would save students time and effort tremendously.

➢ Without these skills it is difficult to get [a] job.

➢ It is an edge for future employment.

➢ Students need to be tech-literate in order to operate successfully and efficiently in the working world now.

- Introducing technology to students during their study would facilitate successful future employment.

Instructors' responses on the impact of 'computer-literacy' instruction in higher education are as follows:

- Students need this in order to have the necessary skill set for higher education.

- Computer literacy is the IT part of information literacy (IL). [At] the most basic level, knowing how to search and evaluated information and use basic productivity software such as presentation tools, word processer, or spread sheet can help students to develop skills for lifelong learning, which should be one of the purposes in higher education.

- Students [who] are not computer-literate are at a disadvantage and need extra support in order to be able to function at the same level as their peers. Students being 'actively engaged or passively receiving info; the former cannot automatically be assumed. Students need training in active learning (whether with or without ICTs). So, as with any other tool, students first need training in order to take advantage of the opportunity for active, independent learning.

- A professional use of such technologies is expected from [higher education] lecturers to be able to deliver high quality learning for their students.

- [Computer literacy instruction creates] a collaborative environment where communication is highly enhanced through sharing information and the usage of the new technologies educational tools.

Collectively, teachers believe it is very helpful and effective but at the same time instructor have to make sure they deliver a quality class which is rich in content and technology based-tool activities.

4.5 Ethical consideration

The researcher got approval from the system wide research committee to run the survey locally means only the researcher's college. A consent form was given to teachers and students promising confidentiality and assure that the data is analyzed collectively. The consent form and approval of research committee could be found in the Appendix D & E.

5. Conclusions

5.1 Recommendation

The study could extended by getting responses from all departments – Education, Business, Engineering etc. for students' and teachers' survey to give a bird's eye view of the topic discussed. The 50% teachers who think were the activities were not authentic should consider to have more active and authentic activities in technology integrated learning at HEIME. The 50% students who thought that they were only using technology because they have to, need to be educated in the advantages of what the tools can offer and also to the 30% students who avoid using technology in class. Students need to have enough awareness on importance of computer-literacy that it is especially worrying because of the importance for finding a job. Also, only 50% used ICT for planning and goal setting. Perhaps this should be included in courses, or teachers could be trained in how to use ICT for this purpose.

Moreover, it is recommended to design a policy that define the level of integration required for a particular course once the instructors decide on the learning environment and characteristics of technology integration happening in the classroom.

5.2 Implication

The study revealed that majority of students and faculty have positive attitudes towards the integration of technology in the courses. The majority of teachers believe integration is helpful in various ways and at the same time it is effective. Moreover, Technology Integration Matrix (TIM, 2009) is an outstanding source for integrating technology into to a lesson plan. This resource can guide educators to include engaging activities using technology for students to experience learning in their classroom. The teachers' perception revealed that at least 60% of all course must be technology integrated.

5.3 Limitations

The survey was supposed to do it for entire students and college faculty but since there was delay in getting approval from the research committee of the system, the researcher had to limit her survey only to her department which is computer science. Although, got 25 % of faculty from other department to participate but the proportion do not look comparable. Moreover, since majority of participants, whether it be students or teachers, are from computer science department the result could be biased as they are in that department because of their interest in the topic. Also, since the majority is from one department the result cannot be generalized but can be generalized to CIS department for all campuses. The researcher has used cluster sampling for data collection, the sampling method which is not actually recommended for a data collection which the researcher wants to generalize. The survey was on voluntary participation which can also make the result biased as the participant found the topic interesting.

Questionnaire had some flaws that the open ended questions were not clear to students that they answered about formatting of the questionnaire itself when further comments [on technology integration] were asked.

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6. Appendices:

A. TIM

LEVELS OF TECHNOLOGY INTEGRATION →

↓ CHARACTERISTICS OF THE LEARNING ENVIRONMENT

	ENTRY LEVEL	ADOPTION LEVEL	ADAPTATION LEVEL	INFUSION LEVEL	TRANSFORMATION LEVEL
	The teacher begins to use technology tools to deliver curriculum content to students.	The teacher directs students in the conventional and procedural use of technology tools.	The teacher facilitates students in exploring and independently using technology tools.	The teacher provides the learning context and the students choose the technology tools to achieve the outcome.	The teacher encourages the innovative use of technology tools. Technology tools are used to facilitate higher order learning activities that may not have been possible without the use of technology.
ACTIVE LEARNING — Students are actively engaged in using technology as a tool rather than passively receiving information from the technology.	**Active Entry** — Information passively received	**Active Adoption** — Conventional, procedural use of tools	**Active Adaptation** — Conventional independent use of of tools; some student choice and exploration	**Active Infusion** — Choice of tools and regular, self-directed use	**Active Transformation** — Extensive and unconventional use of tools
COLLABORATIVE LEARNING — Students use technology tools to collaborate with others rather than working individually at all times.	**Collaborative Entry** — Individual student use of tools	**Collaborative Adoption** — Collaborative use of tools in conventional ways	**Collaborative Adaptation** — Collaborative use of tools; some student choice and exploration	**Collaborative Infusion** — Choice of tools and regular use for collaboration	**Collaborative Transformation** — Collaboration with peers and outside resources in ways not possible without technology
CONSTRUCTIVE LEARNING — Students use technology tools to connect new information to their prior knowledge rather than to passively receive information.	**Constructive Entry** — Information delivered to students	**Constructive Adoption** — Guided, conventional use for building knowledge	**Constructive Adaptation** — Independent use for building knowledge; some student choice and exploration	**Constructive Infusion** — Choice and regular use for building knowledge	**Constructive Transformation** — Extensive and unconventional use of technology tools to build knowledge
AUTHENTIC LEARNING — Students use technology tools to link learning activities to the world beyond the instructional setting rather than working on decontextualized assignments.	**Authentic Entry** — Use unrelated to the world outside of the instructional setting	**Authentic Adoption** — Guided use in activities with some meaningful context	**Authentic Adaptation** — Independent use in activities connected to students' lives; some student choice and exploration	**Authentic Infusion** — Choice of tools and regular use in meaningful activities	**Authentic Transformation** — Innovative use for higher order learning activities in a local or global context
GOAL-DIRECTED LEARNING — Students use technology tools to set goals, plan activities, monitor progress, and evaluate results rather than simply completing assignments without reflection.	**Goal-Directed Entry** — Directions given; step-by-step task monitoring	**Goal-Directed Adoption** — Conventional and procedural use of tools to plan or monitor	**Goal-Directed Adaptation** — Purposeful use of tools to plan and monitor; some student choice and exploration	**Goal-Directed Infusion** — Flexible and seamless use of tools to plan and monitor	**Goal-Directed Transformation** — Extensive and higher order use of tools to plan and monitor

The Technology Integration Matrix was developed by the Florida Center for Instructional Technology at the University of South Florida, College of Education.

Questionnaire for teachers

SURVEYS

Technology Integration Research for Teachers

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Gender

◯ Male
◯ Female

Age

◯ 20-30
◯ 30-40
◯ 40-50
◯ 50-60
◯ more

Years of teaching experience

◯ 0-5 years
◯ 6-10 years
◯ 11 or more

Nationality

◯ UAE National
◯ Non UAE National

Department

◯ CIS (Computer Information Systems)
◯ Business
◯ Engineering
◯ Education
◯ Foundation
◯ Applied Communications

Perceived effectiveness of ICT (Information and Communications Technology) use in the course

◯ more

Years of teaching experience

◯ 0-5 years
◯ 6-10 years
◯ 11 or more

Nationality

◯ UAE National
◯ Non UAE National

Department

◯ CIS (Computer Information Systems)
◯ Business
◯ Engineering
◯ Education
◯ Foundation
◯ Applied Communications

Perceived effectiveness of ICT (Information and Communications Technology) use in the course

practice exercises or tutorials

Communication such as email, mailing lists, conferencing	◯	◯	◯	◯	◯	◯
Organizational application such as database and /or spreadsheets (e.g. Students details, gradebook, schedule etc)	◯	◯	◯	◯	◯	◯
Analytical/Programming applications such as statistics, charting, graphing, drafting or robotics	◯	◯	◯	◯	◯	◯
Expansive uses such as simulations or experiments.	◯	◯	◯	◯	◯	◯
Creative uses such as desktop publishing, digital videos, digital cameras, scanners or graphics.	◯	◯	◯	◯	◯	◯
Informative uses such as Internet	◯	◯	◯	◯	◯	◯
Presentation application such as PPT and/or LCD projector, smart board.	◯	◯	◯	◯	◯	◯
Access applications such as class website or class folder via bblearn	◯	◯	◯	◯	◯	◯
ICTs be introduced and maintained with similar types of pedagogical practices for courses where ICTs are not used be effective.	◯	◯	◯	◯	◯	◯
Overall, how effective was computing technologies in your course(s)?	◯	◯	◯	◯	◯	◯

Gender

☑ Male
○ Female

Age

○ 18-25
○ 26-35
○ 35 or more

Major

○ Engineering
○ Business
○ Education
○ CIS
○ Applied Communication

Personal Computer Use

	Strongly Agree		Neutral		Strongly Disagree
	1	2	3	4	5
Computer makes my job as a student a lot easier.	○	○	○	○	○
Computer technology is useful for my studies.	○	○	○	○	○
I enjoy working with a computer.	○	○	○	○	○

Major

○ Engineering
○ Business
○ Education
○ CIS
○ Applied Communication

Personal Computer Use

	Strongly Agree		Neutral		Strongly Disagree
	1	2	3	4	5
Computer makes my job as a student a lot easier.	○	○	○	○	○
Computer technology is useful for my studies.	○	○	○	○	○
I enjoy working with a computer.	○	○	○	○	○
students.					
I can always find a computer to work on when I need one.	○	○	○	○	○
My learning experiences in the university is facilitated with the use of computer.	○	○	○	○	○
I use a computer in studies because I had to not because I wanted to.	○	○	○	○	○
The use of computers improved the quality of my work.	○	○	○	○	○
The computer technology used sometimes did not work in the way it was supposed to.	○	○	○	○	○
Using computer technology	○	○	○	○	○

Attitudes to technology

	Strongly Agree		Neutral		Strongly Disagree
	1	2	3	4	5
I enjoy using technology.	○	○	○	○	○
I avoid using technology when I can.	○	○	○	○	○
I think using technology in class takes up too much time.	○	○	○	○	○
I know that technology can help me to learn many new things.	○	○	○	○	○
Technology intimidates and threatens me.	○	○	○	○	○
Students should know how to use technology in class.	○	○	○	○	○
I m very confident when it comes to working with technology at home/at work/at university.	○	○	○	○	○

C. Consent form for teachers

Welcome to the Technology Integration research study!

We are interested in investigating the Faculty perspective on the integration of technology in courses. The main objective of the study is to get the perspective of students and teachers on technology integration. More specifically, the research aims to examine which factors and to what extent each of the factors, influences the decision to integrate technology in a course.

This survey will inquire about your experience in using technology while teaching and the feelings you may have about the integration of technology in a given course. This may include factors that may affect you positively and negatively. We very much appreciate your feedback, and especially your honesty, in responding.

The study should take you around 10 minutes to complete. Your participation in this research is voluntary. You have the right to withdraw at any point during the study and for any reason. Your responses are completely anonymous, and will be examined and reported in aggregate form only. That is, no personally identifiable information will be collected, and your responses will never be individually examined.

If you would like to contact the principal investigator in the study to discuss this research, please feel free to contact me on (050 4311456) or email me at emathew@hct.ac.ae .

By clicking the button below, you acknowledge that your participation in the study is voluntary and that you are aware that you may choose to terminate your participation in the study at any time and for any reason.

If you agree to do the survey click the survey link provided below!

D. Consent form for students

Welcome to the Technology Integration research study!

The study should take you around 10 minutes to complete. Your participation in this research is voluntary. You have the right to withdraw at any point during the study and for any reason. Your responses are completely anonymous, and will be examined and reported in aggregate form only. That is, no personally identifiable information will be collected, and your responses will never be individually examined.

If you would like to contact the principal investigator in the study to discuss this research, please feel free to contact me via email me at emathew@hct.ac.ae .

By clicking the button below, you acknowledge that your participation in the study is voluntary and that you are aware that you may choose to terminate your participation in the study at any time and for any reason.

I agree to participate in the survey: Click the link provided to proceed with the survey

I do not agree, I do not wish to participate: No need to click the survey link

E. Students survey results - personal use of computer

4. Personal Computer Use

	Strongly Agree		Neutral		Strongly Disagree
	1	2	3	4	5
Computer makes my job as a student a lot easier.	65	21	9	3	3
Computer technology is useful for my studies.	74	17	5	1	3
I enjoy working with a computer.	58	23	13	1	4
Computers help me to learn the material in a meaningful way.	61	21	12	3	4
Computers make it easier to work in groups with other students.	55	19	18	4	3
I can always find a computer to work on when I need one.	49	25	13	9	3
My learning experiences in the university is facilitated with the use of computer.	58	25	12	4	1
I use a computer in studies because I had to not because I wanted to.	27	18	27	17	9
The use of computers improved the quality of my work.	48	35	6	6	3
The computer technology used sometimes did not work in the way it was supposed to.	26	32	29	9	3
Using computer technology was necessary for me to do well in the courses.	49	29	8	8	4
Computer technology is used in all courses.	49	29	10	12	0

F. Students survey results- attitudes to technology

5. Attitudes to technology

	Strongly Agree		Neutral		Strongly Disagree

I enjoy using technology.

(%)	65	23	6	5	0
	1	2	3	4	5

I avoid using technology when I can.

(%)	16	22	34	12	16
	1	2	3	4	5

I think using technology in class takes up too much time.

(%)	13	19	21	22	22
	1	2	3	4	5

I know that technology can help me to learn many new things.

(%)	61	27	9	3	0
	1	2	3	4	5

Technology intimidates and threatens me.

(%)	13	10	30	22	25
	1	2	3	4	5

Students should know how to use technology in class.

(%)	64	21	12	1	3
	1	2	3	4	5

I would be a better learner if I knew how to use technology properly.

(%)	45	25	16	8	6
	1	2	3	4	5

I'm very confident when it comes to working with technology at home/at work/at university.

(%)	58	27	8	6	0
	1	2	3	4	5

I want to learn more about using technology at home/at work/at university.

(%)	52	23	14	6	3
	1	2	3	4	5

I believe that I can improve my language skills using the benefits of the Internet.

(%)	58	32	6	3	0
	1	2	3	4	5

Using technology in learning languages is not necessary.

(%)	16	14	35	22	13
	1	2	3	4	5

Technology breaks down too often to be of very much use.

(%)	30	22	29	12	8
	1	2	3	4	5

G. Students survey results – use of ICT in classroom

7. The use of ICT (Information Communications and Technology) in class

	Strongly Agree		Neutral		Strongly Disagree
	(%) 43	40	14	3	0
The use of ICT in classes has helped me better understand complex or abstract concepts.	1	2	3	4	5
	(%) 40	36	21	3	0
The use of ICT in classes has helped me to better communicate with the instructor	1	2	3	4	5
	(%) 44	38	14	4	0
The use of ICT in the classes has helped me communicate and collaborate with my classmates	1	2	3	4	5
	(%) 31	38	26	5	0
The use of ICT in courses has resulted in prompt feedback from the instructor.	1	2	3	4	5
	(%) 39	38	19	4	0
The use of ICT in courses provided more opportunity for practice and reinforcement.	1	2	3	4	5
	(%) 42	36	14	6	1
Classes that use ICT are more likely to focus on real-world tasks and examples.	1	2	3	4	5
	(%) 36	32	26	4	1
Classes that use ICT allow me to take greater control of my class activities (e.g., planning, time management, noting success and failure)	1	2	3	4	5

H. Teachers survey result – helpfulness of LMS

7. Thinking about course folder(s) in bblearn and portal in general, how helpful do you think each of the following website elements are to your teaching

	Very helpful		somewhere in the middle	Completely Unhelpful		
	(%) 72	4	16	0	4	4
Syllabus	1	2	3	4	5	N/A
	(%) 52	4	24	8	4	8
Course calendar	1	2	3	4	5	N/A
	(%) 52	12	8	8	0	16
Online readings or links to E-reserves	1	2	3	4	5	N/A
	(%) 32	20	24	8	4	8
links to non-library internet resources	1	2	3	4	5	N/A
	(%) 52	36	12	0	0	0
Gradebook	1	2	3	4	5	N/A
	(%) 36	16	24	8	8	8
Chats or discussion board	1	2	3	4	5	N/A
	(%) 36	24	16	8	0	12
Simulations/interactive animations/applets	1	2	3	4	5	N/A
	(%) 44	28	12	4	0	8
Homework/problem sets	1	2	3	4	5	N/A
	(%) 84	8	8	0	0	0
Creating and/or managing of test/quiz/exam or review sheets	1	2	3	4	5	N/A

I.

6. Perceived effectiveness of ICT (Information and Communications Technology) use in the course

	Very effective (1)	(2)	somewhere in the middle (3)	(4)	Very ineffective (5)	N/A
(%)						
Instructional supplements such as worksheets and practice exercises or tutorials	68	28	0	4	0	0
Communication such as email, mailing lists, conferencing	72	20	8	0	0	0
Organizational application such as database and /or spreadsheets (e.g. Students details, gradebook, schedule etc)	52	32	4	0	8	4
Analytical/Programming applications such as statistics, charting, graphing, drafting or robotics	24	32	20	4	0	20
Expansive uses such as simulations or experiments.	40	16	24	0	4	16
Creative uses such as desktop publishing, digital videos, digital cameras, scanners or graphics.	28	40	28	0	0	4
Expressive uses such as word processing or on-line journals.	36	28	28	4	0	4
Reflective uses such as electronic portfolios.	16	40	36	4	0	4
Informative uses such as Internet	60	24	12	0	0	0
Presentation application such as PPT and/or LCD projector, smart board.	60	24	12	4	0	0
Access applications such as class website or class folder via bblearn	72	16	12	0	0	0
ICTs be introduced and maintained with similar types of pedagogical practices for courses where ICTs are not used be effective.	40	24	20	0	0	16
Overall, how effective was computing technologies in your course(s)?	52	32	12	0	0	0

J. Teachers survey result- TIM characteristics

8. Technology Integration (please mark the most appropriate response for the courses that you are teaching).

	Strongly Disagree		Neutral		Strongly Agree
	1	2	3	4	5
Teachers use technology to effectively deliver curriculum content to students. (%)	16	0	16	16	52
Teachers direct students in the conventional use of tool-based software. (%)	4	12	16	32	32
Teachers encourage adaptation of tool based software by allowing students to select a tool and modify its use to accomplish the task at hand. (%)	8	8	16	44	24
Teachers create a learning environment that infuses the power of technology tools throughout the day across subject areas? (%)	4	8	20	36	32
Teachers create a rich learning environment in which students regularly engage in activities that would have been impossible to achieve without technology? (%)	0	16	16	44	24
Students are actively engaged in using technology as a tool rather than passively receiving information from the technology? (%)	4	24	24	24	24
Students use technology tools to collaborate with others rather than working individually at all times? (%)	4	8	16	32	36
Students use technology tools to build understanding rather than simply receive information? (%)	4	24	20	20	32
Students use technology tools to solve real-world problems meaningful to them rather than working on artificial assignment? (%)	0	12	36	20	32
Students use technology tools to set goals, plan activities, monitor progress, and evaluate results rather than simply completing assignments without reflection? (%)	12	20	20	20	28

Can ESL Students Use Perfect Tenses Perfectly?

Farah Hazim Al Karaki
The British University in Dubai

Abstract

Studying how ESL students acquire and process language features and form is an ongoing and continuous quest by linguists and educationalists. Teachers and instructors who work within the field of TESOL must always search for strategies that would assure the effective acquisition of linguistic features. This research is a qualitative study which analyzes the findings from 20 writing samples collected from a grade 6 "girls-only" classroom. The purpose was to examine the use and the application of perfect tenses in a writing prompt assigned by the teacher after students have explicitly learned the grammatical form through the "Expert Groups" strategy. The preliminary results reveal that explicit teaching of grammar is effective as fifteen out of the twenty students were able to apply and use perfect tenses correctly. A post production interview was held with students who had faulty usage of perfect tenses in order to analyze their processing mechanisms. The result in the interview revealed that the misuse of perfect tenses is the result of two factors: 1) poor foundation levels in terms of grammatical features such as parts of speech, verb tenses, and irregular verbs 2) low self-esteem, high anxiety levels, and fear of failure. In order to fathom the causes and the types of errors committed by learners when applying linguistic features in writing, further interviews should be conducted and more writing samples should be analyzed.

Introduction

Students who learn English as a second language, ESL students, have been the concern of linguists and researchers for the past half century. Second language learners' productions of language whether oral or written have been deciphered by linguists in an attempt to analyze their processing mechanisms. Linguists are interested in how and why learners are not able to produce certain linguistic features correctly whereas other features seem to occur naturally and are produced correctly almost all the time. Many reasons are attributed to this phenomenon. L1 transfer, processing mechanisms, acquiring stages, and saliency are some of the justifications.

This study attempts to answer the following research questions:

- Are ESL students able to employ perfect tenses in essay writing correctly?
- Is using the "Expert Groups" strategy to explicitly teach perfect tenses effective?

This study qualitatively analyzes written samples of ESL learners in attempt to explore the application of perfect tenses correctly and to decipher the processing strategies and techniques employed by students when applying grammatical features in their writing.

"[H]igh levels of writing anxiety could primarily be attributed to writing tests, cognitive and linguistic factors" (Qashoa 2014, p.1). The study reveals that the reasons behind misusage of perfect tenses vary. In agreement with the literature, the reasons are mainly lack of linguistic knowledge such as the inability to distinguish between parts of speech, not remembering the form, and the unawareness of irregular verbs. Some psycholinguistic factors were found as one student was hindered by her own anxiety and low self-confidence.

Literature Review

Writing productions and essays have been valuable data for linguists and researchers as they are the product of *long term* processing, brainstorming, and application of learners' thoughts, ideas, and linguistic knowledge as learners are given ample amount of time to complete the task or the prompt in comparison to oral productions which are more spontaneous and require quick responses and processing.

Several theoretical and conceptual frameworks underlie the research question and the data analyzed in this study. The Noticing Hypothesis by Schmidt-suggested in 1990- plays a major role as it clearly states that for acquisition of syntactic features to take place, noticing of the form and feature must take place first; therefore, the participants and the subjects of this study acquired the grammatical concepts explicitly as they received direct lecturing and their attention was directed at noticing the form of perfect tenses in a straightforward manner. Another important theory which is directly related to the research question is the Monitor Hypothesis by Krashen exploring how the learning acts as a monitor to internalize rules and to acquire them under certain and special circumstances. Predictability and Salience are both interrelated theories which can be applied to serve the purpose of analyzing the reasons to why some learners acquire or do not acquire a certain grammatical feature depending on how salient it is in the language. For the subject of this study, perfect tenses are considered less salient than other tenses in the English language and are not found in the L1 of many of the participants of the study; therefore exploring the application of perfect tenses by the participants of this study with regard to saliency is quite relevant. Another very significant linguistic theory which underlies this study is Systemic Functional Linguistics by Halliday which suggests that grammar can be used as a meaning-making resource and is interrelated with form and meaning. For the purpose of this study, the

exploration of the employment of perfect tenses serves to prove how grammar, perfect tenses in this case, completes the meaning of the essay as a whole.

Strategies for Teaching Grammar:

Gahrouei (2013) explored the effects of teaching grammar explicitly and implicitly. The group which was taught the grammar lesson explicitly performed higher on the immediate post-test by 4.58% than its counterpart-the group which was taught the lesson implicitly; however, the researcher carried out a *delayed* post-test in order to validate the findings, but the results didn't indicate outperformance by the former group. Amirian and Abbasi (2014) aslso explored explicit teaching of grammar rules focusing precisely on Grammar Consciousness Raising (GCR) tasks where they found that students' awareness of grammatical rules was heightened as GCR and explicit teaching was evidently more effective than its counterpart approach Presentation-Practice-Production (PPP). Moreover, Bakshiri and Mohammadi (2014) experimented with the proactive and reactive approaches in teaching grammar. The former approach being a planned ahead strategy where there is a focus on form and learners are asked to notice the structure whereas the latter approach focuses on feedback after the error has been made. The research's findings indicate that the proactive approach was more effective as students in that group outperformed their counterparts, as a result, it was recommended that this approach be implemented in an attempt to improve students' writing skills. Feng and Powers (2005) have also studied the impact of explicit grammar teaching in terms of writing and have found that explicit error-based instruction is affective as the average number of errors has decreased and the grammatical usage has improved noticeably; however, it was concluded that teachers should be aware of common misconceptions in order to address them explicitly which will in return increase the improvement in writing.

Grammatical Errors in Writing:

Many researchers attempted to categorize the types and the number of errors in students'

writing through thorough analysis of writing productions. In a study conducted by Kırkgöz (2010), it

was found that of the 221 interlingual errors found in the 120 papers which were analyzed, errors in

verb tenses ranked the highest (75 of the 221 errors). The study concluded that the cause of these

errors is L1 interference as grammatical rules in L1 and TL were very much different. Vaezi and

Alizadeh (2011) found that most grammatical errors resulted from inattention to subject-verb

agreement, problems with pronominal reference, and incorrect formation of the passive voice as well

as a result of internalized generalizations about grammatical rules of forms instead of learners being

taught the function of the tense in order to ensure correct usage. In exploring the types of errors by

English learners, Mi-Young (2013) found that students made more errors in grammar and form than in

aspects of meaning in terms of their writing with the former making up 91% of the total errors where

most of those errors were attributed to lack of grammatical principles- common frequent errors, such

as article and tenses-on behalf of the students.

Interview Results from the Literature:

In an attempt to process learners' metacognitive decisions when they write, researchers and

linguists have conducted interviews with ESL students in order to comprehend their processing

analysis, their psyche, and their feelings towards the language. Chen and Myhill (2016) interviewed

students after collecting their writing productions and through the interview questions found that

identification of linguistic items was more evident than elaboration, and application of grammatical

forms in writing was limited and infrequent. One of the students interviewed (Mat) showed poor

metalinguistic skills and was unable to elaborate on the reason behind his choices of employing certain

lexical or grammatical items (Chen and Myhill 2016).

Focusing on a different aspect in their interviews, Rezaei and Jafari (2014) explored the reasons behind Iranian students' anxiety with respect to writing and found that low self-esteem and cognitive anxiety were among the highest reasons with cognitive anxiety ranking the highest (41.2%). "The study showed high levels of writing anxiety among [i]ranian EFL students which were mainly cognitive, as reflected in preoccupation with performance and high expectations, and were due to fear of teacher's negative feedback, low self-confidence and poor linguistic knowledge" (Rezaei and Jafari 2014, p. 7).

Other researchers were interested in finding an action plan and coming up with techniques and strategies to alleviate anxiety and fear in order to decrease or minimize all kinds of errors-including grammatical ones- in writing. Qashoa (2014) interviewed students in the UAE who usually perform well on writing tests and asked them to reveal the strategies that ease their anxiety and collect their focus; the strategies included stimulating self-confidence, activating background knowledge, creating positive attitudes towards errors, peer assessment and relaxation exercises. Vaezi and Alizadeh (2011) also suggested strategies to stimulate processing of the writing task like think aloud exercises, translating, interpreting, and triggering background knowledge.

Methodology

This study was conducted at a segregated private school in Dubai UAE which follows the American curriculum. Prior to the data collection, a formal request was sent to the Head of the Girls' section in order to gather and collect data ethically. The participants of this study are 11 and 12 years old Grade 6 students.

First, the students learned perfect tenses through "Expert Groups" activity where students were divided into 4 groups and each group worked on studying, analyzing, and sharing the form, the usage, and the application of one tense of perfect tenses: past perfect, present perfect, future perfect, and simple past vs. present perfect. Each group was given 10 to 15 minutes to present and teach their classmates about the tense. Next, students were given several practice drills such as fill in the blanks, conjugating the verbs, and multiple choice questions to ensure their understanding of the perfect tenses. Finally, for the purpose of meaningful application, they were given a clear task which requires them to apply and use three examples of perfect tenses.

This study was done qualitatively in an attempt to avoid generalizations and to examine each case descriptively. The tools used for this study are the task instructions, the writing samples by the students, a recorder for the interviews held with some of the participants, and the interview questions based on interview techniques by Kvale and Brinkmann (2009).

Task Instructions:

On your writing notebooks, write a persuasive essay convincing someone to join you on a trip to the moon. Remember to include: three convincing reasons, three verbs in the perfect tense (highlight them), an effective thesis statement, and five clear paragraphs.

The Grade 6 class encompassed 30 female students – with Arabic, Persian, Italian, Indian, and Russian being their L1- of which 20 random writing samples were collected and deciphered. Out of the 20 samples, 15 completed the task successfully whereas 5 students had diverse types of error in terms of applying perfect tenses in their essay.

In order to answer the research question and to suggest further recommendations and future implications for teaching grammar, a post production interview was conducted with the 5 students who

had different kinds of mistakes in their employment of perfect tenses. As per the techniques and strategies by Kvale and Brinkmann (2009), the interview was a funnel shaped design where students were not aware of the purpose of the interview until after it was done. The questions asked were detailed and clear. The type of the interview held was conceptual as the structure of the questions is "how" and "why". The types of questions asked were introductory, specifying, follow up, and direct respectively.

Interview Questions:

1) Could you describe in details how you learned perfect tenses?

2) How did you apply it in writing? How did you think about it?

3) What made you think that this highlighted verb is correct?

4) How did you process that?

5) When you say I thought that…. What do you mean? Tell me more.

Data Analysis and Findings

In order to examine and analyze the reasons to why some students were not able to complete the task successfully, an interview was held with each one of them. The students were asked questions about their metalinguistic skills and knowledge as they were asked to explain their choices, the identification, and their usage of the perfect tenses within their essay.

For the purpose of this study, the students will be represented by their initials. Four of the five students with application errors have the same L1 which is Arabic whereas the fifth student's L1 is Persian. It is worthy to mention that all five students have an average of a C or below in English.

It is important to mention that of the 15 students who completed the task successfully, some were able to apply up to 10 perfect tenses in their essays with a variation of past perfect, present perfect, and future perfect. They were also able to use them with the correct signal words and were able to correctly insert them in their essays (refer to Appendix D).

Interview with (C.F.):

C.F. used "will + basic form of the verb" which is the simple future and identified them by highlighting those verbs assuming that she has correctly used perfect tenses. When asked about the reason behind that, she said that she thought that this was correct because she wasn't aware of the form as she hasn't "memorized" it well.

Interview with (F.K.):

F.K. didn't just not employ perfect tenses correctly, but had a problem with parts of speech as after "verb to have" she wrote down a "noun" assuming that this is the correct form of the tense despite the fact that she was able to state the form correctly the second time she was asked about it as she seemed to mix up between progressive and perfect tenses at first. When asked about the way she processed her application, she said that she has a problem with differentiating between parts of speech.

Extract 1:

1. F.K: I learned about perfect tenses by using like the words in future.
2. T: What do you mean?
3. F.K: Like will be and will have
4. What is the form of perfect tenses?
5. Will have +past participle

Extract 2:
1. T: What about the other forms of verb to have?

2. F.K: I didn't know about them

3. T: you identified will have hydrogen and will have fear as perfect tenses

4. F.K: I thought that fear is a verb

5. T: Can you clarify please…umm…do you have a problem with parts of speech

6. F.K: umm ya…a little

Interview with (H.T.):

Out of the 5 interviewees, H.T. seems to have the highest metalinguistic knowledge as she was able to clearly voice her opinion and give a valid explanation to her choice. In comparison to the errors by her other classmates, hers seemed to be less severe as she only had a problem with the irregular past participle forms since she was aware of the form of the perfect tenses. She clearly states that in line 7 - H.T.: I didn't know that there is a word called flown. Also, one of the tenses in which she identified as a perfect tense was correct proving that she has acquired the form and usage of the perfect tense but only faced a problem with the irregular verbs. Another significant finding from the interview with H.T. is when she stated that sometimes she forgets the rule or the form and writes down the tense anyway that she remembers or knows (line 11).

Extract 3:

1. H.T: I learned in the expert groups…we discuss it and we presented and then I listened to others.

2. T: can you recall the form

3. H.T.: has or have + past participle

4. T: how did you apply it in writing

5. H.T.: ummm I just…I tried to search for a place for it.

6. T: what made you think that had flew is correct

7. H.T: I didn't know that there is a word called flown…I don't know the irregular verb table

8. T: How about will always have

9. H.T: Because sometimes I see it in books and things.

10. T: but this goes against the rule….how did you process it

11. H.T.: I just forgot about the rule and wrote it

Interview with (L.K.):

(L.K.) didn't have errors in her application, for she didn't employ perfect tenses in her essay at all. She deliberately and consciously chose "not" to apply perfect tenses in her essay writing as she clearly stated that she thought that her application will be "wrong". This steers the research into a different direction which is the issue of avoidance and how some students choose not to take risks in order to avoid negative feedback by the teacher. In this case, exploring her application error is invalid, instead the unemployment factor was explored and reasons which underlie this decision were taken into consideration. As evident in (line 4) from extract 4, the student has low self-confidence in the linguistic sense and had the presumption that her choice or application will be faulty, thus she avoided the entire situation.

Extract 4:

1. T: Why didn't you apply them in writing?
2. L.K.: Because I thought that they will be wrong.
3. T: What made you think that?
4. L.K: I understood them, but I didn't really know how to put it in the essay…I thought that I will mix up.

Interview with (Z.N.):

It is evident that out of the 5 examinees, Z.N. faces the most difficulty in terms of perfect tenses, their form as well as their application. Just like L.K., she hasn't applied perfect tenses in her writing. When asked about the reason, her answer was not related to avoidance strategies, but to the mere lack of knowledge of the form of perfect tenses. The student mentions a clear reason to not applying perfect tenses in writing as she said that she didn't know how to insert them or where to place them. This can be a result of her not being aware of certain signal words related to the tense. As for

parts of speech, Z.N. was not aware of the fact that she was mixing up between nouns and verbs as evident in (line 12); therefore, the problem lies in her not fully acquiring previous stages in order for her to be able to proceed and move on to the higher stages (parts of speech and tenses).

Extract 5:

1. T: what do you remember about perfect tenses
2. Z.N: we use them in the past and future and present
3. T: Can you recall the form
4. Z.N.: it depends on the verb because I forgot the form
5. T: why haven't you applied them in writing
6. Z.N.: I didn't know how to put them in the sentence…where should I put them
7. T: do you have a problem with the form?
8. Z.N.: I don't know if the sentence…..so if I can put them in a sentence
9. T: what about irregular verbs?
10. Z.N.: They end with "ies" if the word end with a y.
11. T: irregular are the ones that change completely.
12. Z.N.: Aaahh like tooth teeth
13. T: but those words are nouns….do you have a problem with parts of speech
14. Z.N.: ummm yaa kind of
15. T: how exactly
16. Z.N: I can't differentiate between them
17. T: do you know what a noun is
18. Z.N: Yaaa like the object and the verb is the action

Discussion

The data collected and analyzed generated various findings related to second language acquisition. Several linguistic factors for the misuse of perfect tenses were noted as well as other psycholinguistic ones. The discussion focuses on:

1. Grammar teaching strategies

2. Types of grammatical errors in writing

3. Interview results

In agreement with Gahrouei (2013), Amirian and Abbasi (2014), and Bakshiri and Mohammadi (2014) who explored the effectiveness of explicit teaching of grammar rules, the majority of the participants were able to apply the grammatical features which they have learned explicitly as their grammar consciousness was raised through directing their attention to the form, thus fifteen out of the twenty participants perfectly applied perfect tenses in their essays. One element which was lacking when students learned perfect tenses through "Expert Groups" was explicit error-based instruction suggested by Feng and Powers (2005) who found that explicit grammar teaching is beneficial only when errors are raised previous to the application of the form or during the instruction, but when students learned through the mentioned strategy, learners were not able to convey to one another the common misconceptions or some errors or faulty formations which might arise later on.

As a result, students who already have misconceptions about parts of speech and irregular verbs were affected. Based on the several extracts which were transcribed and deciphered from the interviews conducted with the students with faulty applications of perfect tenses, it was found that the reason behind that is the lack of knowledge of parts of speech and irregular verbs among other non-linguistic factors.

As for the grammatical errors committed by the participants, in agreement with the literature, it was found that the learners' essays were comprehendable in terms of meaning as the main idea was easily conveyed to the reader since the errors made were attributed to grammatical forms and structures rather than meaning (Mi-Young 2013). One noticeable factor is L1 transfer suggested by Kırkgöz (2010) as the participants with errors in perfect tenses have rules in their L1 which are highly

different from the TL. For the participants whose L1 is Arabic, perfect tenses do not even exist as a grammatical feature which makes it even harder to acquire the form and usage. Some of the participants interviewed, for example F.K., had false assumptions about perfect tenses such as "internalized generalizations" about the tense, used with will have only, as mentioned by Vaezi and Alizadeh (2011).

The interview process revealed several metalinguistic factors related to writing and grammar. It was evident that the majority of the interviewees were able to identify the form, but when the question targeted elaboration, the answers were limited in agreement with Chen and Myhill's (2016) findings. One out of the 5 interviewees, H.T., was able to elaborate and give clear reasons and justifications to her answers in terms of form and misuse of perfect tenses.

In congruence with Rezaei and Jafari (2014), low self-esteem and fear of teacher's negative feedback were some of the reasons which caused one of the participants, L.K., to steer in the direction of avoidance and completely evade the usage of perfect tenses in her essay.

Conclusion and Recommendations

Deciphering how ESL students process and acquire language features is one of the major concerns of linguists, researchers, and educationalists in particular. In order to improve and develop the quality of education in the UAE and to help achieve the National Agenda goals which are set for 2021, it is crucial to understand the mechanisms in which learners process information and to improve weak strategies adopted by teachers in delivering skills or content in order to deviate from faulty internalizations and generalizations by ESL learners about specific language features.

This study reveals that explicit teaching of grammar is considered effective and successful as the majority of the sample were able to correctly apply perfect tenses in their writing; however; there were five out of the twenty students who had diverse types of errors which mainly are attributed to misconceptions in their prior knowledge which the newly acquired language feature is dependent on (example: parts of speech, verbs, irregular verbs). The findings are in agreement with the literature as it was previously found by researchers that verb tenses, parts of speech, and grammatical errors are more evident in students' writings than errors in meaning.

The post interviews conducted reveal how some errors are the effect of high stress levels, low-self esteem, and fear of failure as well as negative feedback. These findings are in agreement with the findings by Qashoa (2014) whose study was also conducted in the UAE. Qashoa (2014) suggested several recommendations on how to decrease students' stress levels and how to elevate confidence before a writing task. Those recommendations can be quite effective if teachers promote them in classes and train students how to adopt them.

In order to test the validity of the findings, the same linguistic form, perfect tenses, should be taught explicitly and implicitly and a comparison of the two different types of samples, in terms of teaching strategy, can be conducted. Also, pre-writing interviews can be held in order to determine how the student is going to process the information before he or she performs the task.

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Appendices:

Appendix A (C.F.: simple future tense mistakenly used as perfect tense):
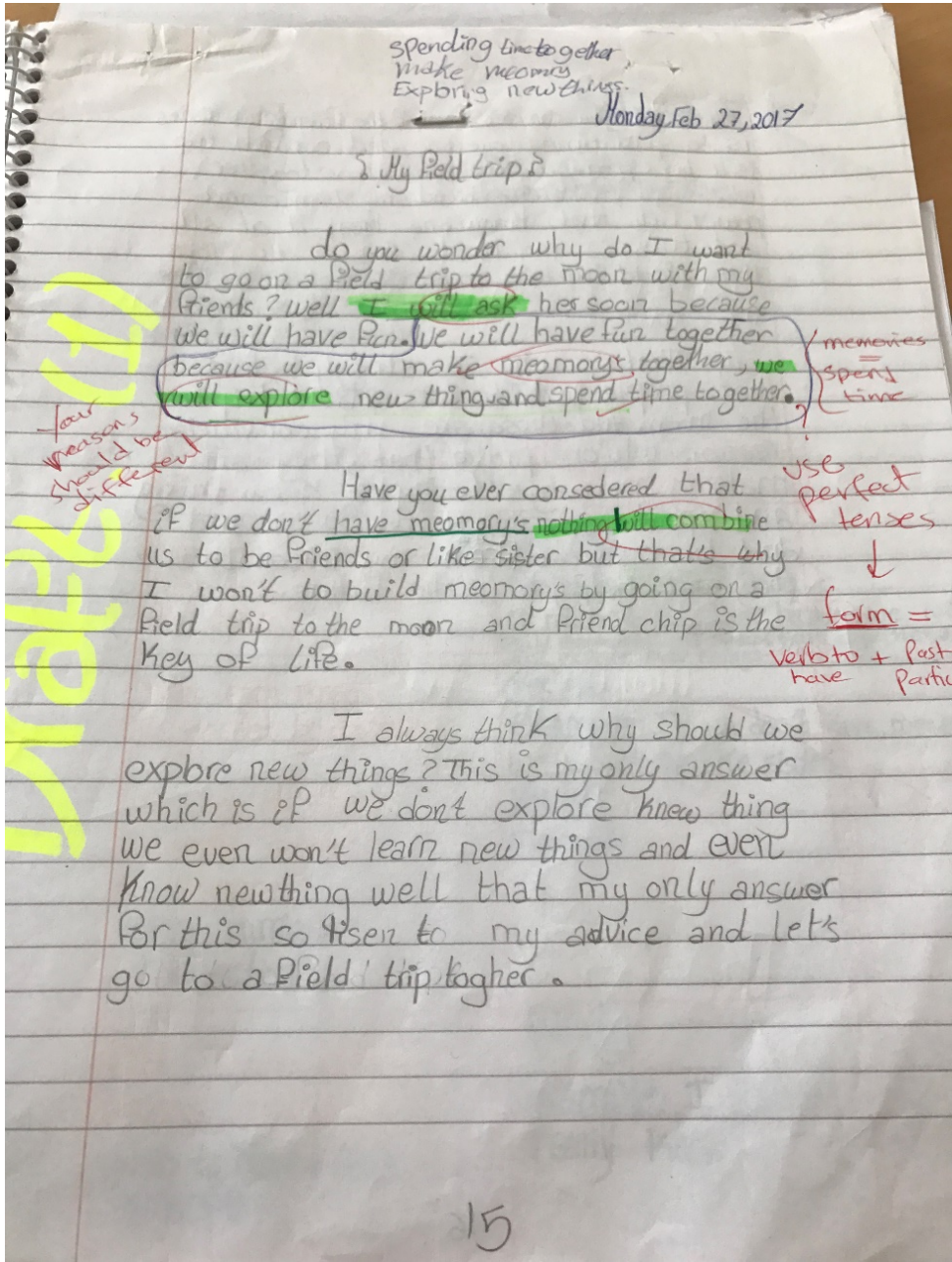
Appendix B (F.K.: will have+noun/misconception in part of speech):

The moon

Hey you astronuts I'm going to tell you if it is safe to go on the moon. No! because it is dangerous, you will have fear, and you will feel uncomfortable. I disagree.

Firstly, going on a moon is realy dangerous. Maybe suddenly you will be out of fuel and if fuel finishes you'll died. Sometimes the engine of the rocket will be broken that will cause you to die. Or maybe the oxygen in your body will finish and you will have no oxygen then you will die.

Secondly, on the moon you will have fear. You are used to gravity but on the moon there is no gravity so you will be scared. On earth there is weather but on the moon there is no weather so you will have fear. You have Hydrogen with you but still you have fear.

Thirdly, you will feel uncomfortable on the moon. If you are an astronut on the moon you have

to eat astronut food and it is disgusting. The worst thing of an astronut is the Helment it won't let you breathe you will be uncomfortable. Specially the heavy clothes that they have to wear, they can't walk with that. the moon is like a sock (hard).

I totaly disagree of going on the moon because, it is dangerouse you will have fear, and you will feel uncomfortable. I advise everyone o they astronuts TO NOT GO ON THE MOON.

Warning!!!

Appendix C (H.T. had+flew/ misconception of past participle):

26-2-17

<u>A trip to the moon</u>

theses: come with me to the moon it will be nice to go out of earth, explore things, and fly.

A nice big trip to the lunar why dont you come with me it will be very risky but fun and telling you this is not just a random trip it is very special a the thesis should come at the end of the intro.

In this beautiful trip there is no gravity so we can fly, Imagine flying like a bird it is amazing to tell every one that you had (Flea) flown and they hasn't. Isn't it great.

Imagine finding Aliens or creatures diffe than animas and human, we will always ha been the best explorers in the whole unive Just imagine my friend that, its really possiple if we are willing to find them we u I people tried to search for new thing we would have found things From before what can I do we can start it no need for o People.

please use punctuation Many people did that they went out of earth why dont we do that leave this

4 5

Appendix D: (Perfect use of perfect tenses-2 samples)

The moon

☺ Would you rather go to the moon alone or with company. Although I hadn't seen the moon or even go to it, but no one likes to do things bythemselve but do they like to do it with friend. I really would like if you came with me to the moon, for you might be famous, and you can also get things for your friends and family, and you can explore more about space.

I you went to the moon with me you will for sure be famous that you actually become famous. If you haven't felt that feeling then you would. You would be everywhere on bookes. Everyone would have known you and everyone would have followed you everywhere you go.

When you go to the moon ofcore there are many things you would find there like : rocks and dust. You could take some of them for your friend and families. You could ofcorse take pictures and take them back with you to make your Parents proud.

When you go to the moon sure you will have seen many things you never knew. Those things could help understand alot about what you are studying. You could have seen new dwarf planets maybe or new rocks.

If you have came with me many Good would have happend like we could have been famous, and we could have gotten souviners, and we would discovered new things. When you're famous many people would known you and you would be everywhere on You could get thing with you to earth like rocks and dust. You can understand more about your studies about the and you would see new things. Would you change your mind about coming?

Very detailed and interesting ☺

well supported reasons.

DRAFT

= Catchy sentence.
= Generel Inb.
= Thesis.

Going To The Moon!

= Perfect tenses.

Can you imagine you are on the moon now? people have stated that it had been risky for people that want to go there. I strongly believe that going to the moon is going to be striking because you will have amazing times, Social media likes, and you will be able to see history marks.

Interestingly reasons

If you went to the moon you would have magical adventures like looking at the stars. Even remember there is no gravity so float. You will have played hide and seek stage in the moon is gigantic, it had rained a million times on earth, but in the space and, moon it will never rain. on the

Ofcorse you will take pictures and stuff of the moon, when you get back home you will have taken a million pictures you could post it on Instagram or facebook, or even a snap chat story people love watching magical stuff so they will add you as a friend or like your post which will lead you to millions of followers

very interesting ☺   I didn't think of that!

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Now we are talking about History not any history marks but Niel Armstrongs foot print or even the flag that he had placed with his own bear hands, you could also see the spaceship that was about to die. marks. Just take a selfie with it now you will have Niel Armstrongs history if he were your idol?

Now in a conclusion I strongly believe that going to the moon is exquisite because you will have amazing times, Social media likes, and you will be able to see history marks. Magic doesn't exist, but on the moon nothing is impossible I'm sure you will have taken a million pictures and selfies. It's fine for you to be famous and your idol. Don't you think you will be junior Niel Armstong after this trip?

Niel Armstrong

I don't think it makes sense

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Crafting Education: Empowering the Youth through Technology

Fatima Ahmed Yousif Al Hammadi

The British University in Dubai

Abstract

In the current developing and the ever-evolving world, technology is an integral part of this unfolding. Changes taking place in the society we live in today are in most cases driven by the young people. Various institutions can be utilized for making use of the talent existing among the young people to reap the talent among the youths. Among the various institutions where this goal is made a reality are the higher learning institutions. To realize the full potential for the young people, their empowerment need to be done indiscriminately without considering whether they are male or female or their religious belief as well (Khan and Ghadially, 2010). This is especially the case considering that higher learning institutions are especially centers where innovation can be tapped to its full potential.

Furthermore, it is at this stage where the youths are at their prime regarding being innovative. Technology is a collection of skills, methods, and techniques used for accomplishing different goals or in producing goods and services. Not only does technology empower the youths through tapping their innovative skills, it is also important in terms of healthcare by providing critical health-related information (Skinner et al, 2003). This research paper gives a detailed account on youth empowerment through technology based on education.

The study consists of an introduction, literature review, conceptual framework ideas, methodology, and a conclusion sections. The study and research will be targeted at a group of senior, college going youth and the survey with adequate questions will be created to target this group.

1.1 **Problem statement and aim of the research**

When considering the vast opportunities that technology presents in the current society especially for the youth, you realize the importance of the need to create various measures and platforms through which young people can be equipped technologically (Wright, 2005). Youth empowerment through decision making strategies is one measure for which young people can be empowered technologically (Valaitis, 2005; Barron, 2014). However, there are various challenges facing the technology industry that the youths are often exposed to. When considering technology advancement and the need to equip the youths with various skills relating to technology, the feeling that one gets is not always a positive feeling. The current digital world in which we exist creates a vast number of challenges that leaves the youths and other online users exposed. This is especially the case when the youths take the center stage in participating in these activities (Kesby, 2005). Some of the common dangers that youths are exposed to while using the online platforms include cyber bullying and exploitation among other various harmful scenarios. However, in combating the same, the young people have an important role to play in mitigating the various risk (Cargo et al, 2003). The innovative nature of the youth means that they are the best-placed group in the society to handle and come up with an innovative measure that can be useful for combating the risks.

In the current setup of the society, there has been a growing usage and engagement in use of technology. The world is growing big concerning technology and the use of digital systems in performing the various roles. There are various benefits and opportunities that come with engaging technology in the society and this is also the case for youths (Bijker and Law, 2004). Such scenarios mean that a variety of opportunities exist that arise because of the evolving nature of the technology and the digital systems in the society (Cargo et al, 2003). Concerning the various danger in the society,

there are also chances for the young people to use their skill and technical know-how to come up with measure through which different danger relating to technology can be handled in an effective and proficient manner (Cargo et al, 2003).

Technology and technical sector of the society come with various unique chances for growth and learning among the young people. In advocating for social change in the society, technology comes in an important platform through which this objective can be realized (Thackeray and Hunter, 2010). There are projected increases in rates of unemployment in the current global dispensation. A number of individuals who are unemployed have been on the increase of the past period, and the trend is not set to decline in any way over the near future. However, with all this in mind, technology is a sector that is on the upward spiral and this trend is set to continue for the near future.

With this growth, there are various opportunities for growth among different people, and this is especially the case for the young people. There are different amazing opportunities that come along with the growth in technology especially when considering the young people. The people involved in managing the youths as well as the different organizations have a role of ensuring that the youths stay motivated and that failure should not be a hindrance for growth (Jennings et al, 2006).

Different organizations, both governmental and non-governmental have been involved in various projects to ensure that youths are continually provided with various platforms for growth. Organizations such as UNICEF, in collaboration with Barclays have put in place different programs for the young people. Such programs and many other are set to be made a reality within different young from different regions. Such programs are sure to measure through which various opportunities arise and these are opportunities beneficial for the young people.

It is only through empowering these people through the education systems that the youths can realize their potential and reap big of them by making use of the different opportunities that come along with such dispensations (Cargo et al, 2003).

1.2 Purpose and objectives

The main objectives of this research are to make a review of the previous literature on the subject of youth empowerment through education. Secondly, the research will also strive to understand whether there are any gaps in the education system concerning youth empowerment using technology. In case there are any loop holes, then it will also seek to find measure through which the issue can be handled in a manner that is effective and fast. Finally, the research aims at understanding the role of technology and its influences on the youths in their daily lives and different skills.

1.3 Research questions

In research, there is a need to have some questions that guides the research. These questions often act as the guard sticks for informing on the progress of the research and ensuring that the research is maintained within its boundaries. For this research, two main questions are set to be answered. The first question is, what is the relevance of technology in the education system and the role it plays in empowering the young people? Secondly, the research seeks to find the type of technologically based education that is applied in the education set up for enlightening the youths.

1.4 Rationale for the study

Youths have so much potential through various activities that they can engage in that would then be productive to them in the future as well to the society. One reason as to why it is important that the young people should be educated and empowered with the use of various technology measures is

because young people have so much untapped potential (Newman, et. al. 2012). This potential can only be realized in them through laying down various platforms and measures through which they can showcase and realize their full potential. The potential that lays untapped in young people however, would go to waste in case proper measures are not put into place for which this potential among the young people can be realized (Newman, et. al. 2012).

Additionally, the young people make up the large part of the society. They are the most energetic and are the people who carry the future of the society in their hands (Moody et al, 2003). Considering that the society we live in and that which is to come is technology oriented, there is an urgent need to streamline the education system in a manner that encourages the young people to be innovative and to use the different platforms there is to realize their potential. Growth and advancement in the current technological achievement can only be maintained at the current pace and improvements realized towards the same through passing on the mantle to the young people (Moody et al, 2003). This, however, in essence, laying down the necessary measure through which all these can be realized, and it can only be made possible through educating these people on the different technological platforms.

2. **Literature Review**

Youths are the most valuable and essential resource that the world needs. These people with too much potential need to be tapped for the overall well-being of the society. Additionally, youths make up the large percentage of the overall world population. Given an early access to technology and information systems, youths become early adopters of these technical skills and knowledge, which are vital for spurring growth both economically, and regarding innovation development. This would not

only be of importance to the youths, but also for the society as a whole (Frank, 2006). Not only are youths at the forefront of societal transformation through information and communication technology.

Through the Internet and the knowledge of how to use these systems, technology provides the young people with means through which they can communicate, connect and innovate with a view to the things that matter to them. Positive development among the young people is essential in tapping their potential (Lerner et al, 2001). If this is taken at a global scale, it, therefore, implies that the youths are global actors and agents of change.

In most societies, the level of potential among the youths and their social consciousness are often overlooked. However, various other things are of importance for the young people including human justice and human rights. As a result of the many ideas that the young people go through, most of them are motivated to be change agents and to link technology to the realization of their development goals. However, without the necessary educational training and entrepreneurial skills, youths will be in no position to actualize their dreams.

Higher education, through training people with greater skills capacity, contributes to the innovations and research base as well as building capacity for change that then has a significant impact on determining competitiveness level in the global economy that is competitive based (Marginson and Van der Wende, 2007). Higher education has the upper hand in driving innovation and technology especially considering that it plays a central role through the cross-cultural encounters while also playing a vital role in building global networks based on the future. At some point, the flow of ideas, financing, student and faculty across the border together with informational development regarding technology are proving to be impactful in the higher education environment (Marginson and Van der Wende, 2007). In essence, this then means there is enhanced competition and collaboration between institutions and countries on a worldwide scale.

There are various ways through which links between quality assurance and the higher education institutions can be realized (Friend-Pereira et al, 2002). Driving the desire for quality education that is promoted through education is one of the measures that the links can be established. When the institutions involved in the provision of teaching services among the youths encourage a culture of quality within its ranks, it becomes easier to integrate the quality skills into the system, and it also becomes easily adaptable (Kesby, 2005). Secondly, increasing the understanding of the students and the academics would also provide another important link between the quality assurance and the educational institutions. That can be realized through greater collaboration in academic-related research undertakings (Friend-Pereira et al, 2002).

Despite that, most of the research funding at the moment are national based, the chances are that foreign funding among universities is likely to increase shortly and this is liable to lead to the emergence of new research powers (Friend-Pereira et al, 2002). Various nations are mostly focused on building world-class learning institutions through the collaborations.

A global convergence in the models of governance for higher educational establishments would also play an essential role especially while considering the funding mechanism for higher education as well as for quality assurance (Friend-Pereira et al, 2002). Competitive allocation of funds and other resources among institutions of higher learning is an increasing practice among many countries. This system of funding is based on the performance criteria for the organizations involved where the institutions that promote innovation and globalization receive more money as compared to those that least engage in innovation and globalization. Learning systems that embark on providing quality and value for their educational services have higher chances of growth and prosperity as compared to the other institutions (Yang, 2003).

These organizations reap significant benefits with some of the gains being increasing student loyalty, reduced vulnerability to changes in the economy and the tech world, more autonomy from government both national and international about policy development. Most of the institutions that fail to embrace globalization and the increasing demand in innovation and technology needs often experience problems regarding student and staff retention. Such situations result from these students and employees perceiving other institutions as having more valuable education regarding quality. Diverse strategies both at the local and international level, therefore, need to be setup to ensure that higher education institutions support the social role of these establishments (Stanton-Salazar, 2011).

2.1 **Conceptual Analysis**

Understanding technology and barrier relating to design are essential for preventing robust using and enhancing growth among the youth through innovations. Efforts in the future relating the same need to lobby for significant feedback from the different stakeholders to ensure that they are designed in a manner that meets the needs of the youths. There is also the need to explore additional options regarding making use of technology that is self-reliant (Riedl, 1995). The system needs to be designed in a manner that it would only involve limited level of investment by the concerned parties for enrolling the users and helping them in using the equipment.

Electronic tools need to be fully integrated into the workflow for the government and agencies to increase the chances and likelihood of being accepted for use by the youths. This approach creates more time for the staff handling the tools to raise awareness concerning the technological tools among youths throughout the interactions. Integrating technology with the learning environment is an essential way through which youths can be empowered technologically (Garrison and Kanuka, 2004).

Various international policies are coming to place regarding youth development and youth mainstreaming accordingly with the technological changes and needs. Technology is an important tool for youth, other than just for education and equipping them with information. Integrating various technological inventions in the education system and challenging the conventional education system is an important step in empowering young people (Wilson, Liber, Johnson, Beauvoir et al, 2007). Various ways exist concerning making progress on this issue and making regular improvements.

There are several areas where technology would play a significant role in the development and growth for young people. For instance, technology other than being useful in the media platforms and education, it can also be used for the provision of healthcare services as well as for supporting the participation of the youths in the political arenas of the world. The technological empowerment furthermore proves to be useful in bridging the gaps concerning development among the young people from different regions (Thackeray and Hunter 2010).

Media and technology prove to be a good way given the role that these platforms are likely to play in ensuring that the gap between youths in less developed countries and the more developed countries are bridged. Different organizations, in collaboration with the various governments and stakeholders, have an essential role to play in ensuring the plenty of work remaining is dealt with and the gaps separating youths from the different regions of the world are bridged (Huxham and Vangen, 2000).

2.2 **Review of related literature**

Youth's empowerment using technology can be realized in two main levels. First, there is the individual level empowerment and the organizational level of empowerment. At the individual level,

young people have the potential of having a great impact on the adults and even the communities in which they live. Through empowerment programs through education and learning programs, young people can become important agents of change in the society. The youths often feel valued when they are involved in at different levels of how they relate to the adults. They would often feel as being an important aspect of the society and having an important role in the society when they play a role or two in the society. Such opportunities furthermore provide the young people with different opportunities and support for consistency, skill building, and affirmations that are important for affirming to the youths through research that would consistently enable them to achieve mastery skills and strong mental health to this regard.

The transfer of responsibility is an important measure of empowering people (Larson et al, 2005). Individual empowerment realized through educating the youths is a good sample theoretical approach for youth empowerment. This theoretical perspective aims at developing the efficiency and confidence among the youths and a chance through which they can take part in the overall community development. There is a sense of power and putting it to practice among the young people especially when they are given a chance to make an impact on the community through change. This can only be realized through empowering them with technology through the education system.

There is also the organizational level of youth empowerment. Organizations, which for our case are the educations institutions often provide the youths with an opportunity through which they can gain control over their lives (Checkoway and Gutierrez, 2006). There are also cases where these institutions have an important role in influencing policies and in some cases offering different alternatives in relations to service provision. Learning institutions that involve youth empowerment often stick to the participatory decision-making principle. The power held by the youths through the various empowerment enhances greater satisfaction. It would then affect greatly on the level of

commitment and participation for the youths in societal development through increased commitment. Organizational/ learning institutions' empowerment does not only extend some level of benefits for the organization itself but also to the youths.

2.3 Theoretical Consolidation

Among the various youth development projects that are often undertaken in the diverse communities, it has been determined that information technology is an essential tool for empowering young people. Teens feel better when taking part in the community-based projects. This can be accomplished only when the youths have access to the internet and other important technology, which guarantee them a safe way for communicating for the youths with their neighboring communities (Prain and Hand, 2003). It is through these platforms that the children are enabled to get the view of their fellow teenagers on various topics while also giving them the platform to share their opinion as well. Online communication gives the youths the feeling of accomplishment while at the same time making them perceive themselves as having a high social class as well as increased credibility (Lombardo et al, 2002).

Technology is in itself empowering through its ability to reach the wider community and the youth from different walks of life. Therefore, it is a useful resource that improves the efficiency for the young people. It also supports the critical reflection while also creating a permanent record of the work that they undertake (Strack et al, 2004). Despite all the positives that technology provides for the youths regarding empowering them, there are multiple drawbacks relating to the same. For instance, there are the accessibility issues to the technology platforms, potential of miscommunications through the technological platforms as well as the feeling of inadequacy are some of the shortcomings that need to be worked on (Valaitis, 2005).

There are however a limited number of studies focusing on youth empowerment especially in developing nations. However, a study was done by Khan and Ghadially, (2010) shows that youth empowerment through information technology in India is on the rise. Most institutions in the country have taken up the initiative to take up various programs that ensure that youths are equipped with the necessary and relevant information for their growth and development regarding innovation. This has also been the case with other developing countries. However, most of the empowerment has been realized among the developed nations, and the development has also been on a consistent basis over time.

3. Methodology

3.1 Research Approach

Qualitative research approach will be employed in this study. This approach often involves a social constructivist paradigm (Davies and Hughes, 2014). This approach often involves nature of reality that is socially constructed. In the most typical cases, it is usually about analysis and an attempt to uncovering the deeply held meaning and significance for nature of the human behavior and their experiences (Lewis, 2015). This often includes sometimes taking a look at the beliefs, behaviors, and emotions that are contradictory in nature. For this approach, the research focuses on gaining a rich and multifaceted look at the different experiences that people, and in our case, the youths encounter, rather than gathering information that can be used for generalizing for the larger group (Liamputtong and Ezzy, 2005).

3.2 **Data Collection**

In gathering the relevant information for this study, interviewing is one of the most important method of data collection that was involved in the research. Interviews involve data collection through asking the respondents questions while their responses are recorded by the enumerator (Rowley, 2012). For this research, we used two main forms of interviews, i.e., the structured interviews where the respondents are interrogated using well-structured surveys. On the other hand, there is also the open-ended interviews where the facilitator takes notes in the process of talking to the respondents (Rowley, 2012). The notes taken for this case are then carefully structured for further analysis. There are cases when the open-ended interviews need to be analyzed during the interview process (Rowley, 2012). In such a case, then the facilitator needs to be well trained and be equipped with the various necessary skills for clearly analyzing the information gathered.

For the case of the open-ended interviews, there are various data gathering activities that are often involved as well as social research methods (Patton, 2005). Focus group is one of the methods that is involved in the open-ended interviews. These often involve 5 to 10 people and in most case the people selected are often from particular target groups which are considered as having the information that is being sought after (Qu and Dumay, 2011). The key informant method was also involved in the same, and this is often where a representative of the youths from a given section of the population in interviewed and various important information collected from them. In most cases, these are the people considered as having an upper hand to access to information and being in a better position to answer different questions relating to the topic of discussion. In most case, the people considered in such a case are the leadership, for instance, leaders among youth based programs or among various institutions (Turner III, 2010)

Structure interviews were also majorly involved in collecting the relevant information for this study. In the typical cases, structured interview often involves well-designed forms containing well-structured questions (Rogers, 2001). The forms involved in these interviews are often filled by the researcher unlike for the case of the questionnaire. Despite the approach being a bit costly, it is often more credible as complex questions are involved, and it also involves validation of the data during the collection process.

The study instrument will have various categories of both close-ended and open-ended questions which are broadly classified as below:

- Questions related to personal profile and technological factors of the individual.

- Questions related to the individual's interaction with society and the immediate environment.

- Questions related to the individual's relationship with family.

- Questions related to the individual's mental and physical health.

- Questions related to measuring the importance of achievements in studies and extracurricular activities at the university.

3.3 **Plan for piloting the instrument**

Piloting the instrument would involve various stages. The first would be the retrospective interview. This would first involve administering the surveys in a manner similar to the plan and under similar conditions.at this point, it is important that we should record the timing for which each survey took to be accomplished. Secondly, the research will be keen to identify scenarios when the respondents seem to be a bit hesitant in answering the questions. This may be an indication for vagueness in the question.

After accomplishing the survey, you would then go through the survey with the respondent and try to understand instances when they experienced difficulties and why that was the case so that the research question can be restructured to be clear. For cases where there are multiple questions, it is important that the researcher should find out from the respondent whether there are any other choices that can be included. Furthermore, it is important to take into consideration the cultural sensitivity and whether it has been observed by the questions. That can be done by asking the person whether they felt in any way offended by any of the questions.

Feedback for the instrument can be achieved through asking the respondents through a focus group discussion why they at some point stumbled on particular questions. They would then together develop different questions that would-be alternatives for what had been previously selected.

There is also the think out loud interview where the respondents are thinking out loud in the process of answering the questions. From the manner in which the respondent thinks out loud and responds to the questions would suggest areas that would need to be altered. Finally, the research can debrief and revise the pilot instrument feedback from the surveyors for identifying patterns (portal.unesco.org, 2016). In the case of notable hesitations on particular questions or requests for clarifications for particular areas, then there would be a need to revise these areas. Finally, the revised version need to be tested again in the field before the actual survey is undertaken in the field.

3.4 **Data analysis**

In an analysis of the data sets for the information gathered relating to youth empowerment through technology, the study will be conducted with the aid of the exploratory data analysis approach. The approach summarizes the key aspects of the relationship between variables through visual observation. In this case, we can either use a statistical model or not, but in whichever route we go, the

exploratory data analysis approach tells us more than what the formal models do (Martinez et al, 2010).

This method uses various graphical techniques for aiding the visual observations. To this regard, we consider the box plots, scatter plots, histograms, Pareto charts, odds ratio, run charts among many others (Velleman and Hoaglin, 2012). For our case, the consideration would be the different factors that hinder access to technology among the youths from both develop and less developed regions.

3.5 Delimitation and limitations

There were various upheavals encountered in the course of this research. One of the challenges was finding people to take part in the survey. As much as the research is involved a section of the population that is the largest, it was not easy to identify and select people who would take part in the survey (Malhotra and Birks, 2007). In some cases, some of the participants were not willing to take part in the survey for their personal reasons while others were held in various activities. At some point, the timing for the research felt poor as at the time for which the research was to be conducted, the people to be interviewed, the youths were held in other engagements.

This problem can, however, be averted next time by ensuring that one has prior information about the behavior of the people to be interviewed. Sometimes the people to be involved in the survey lack the information necessary for taking part in the survey and this is especially the case with online surveys (Ilieva et al, 2002). Additionally, one should approach the potential respondents with confidence and with no fear. Once the researcher is done with a respondent, it is always important to ask them for referrals. This would make it easier to find other potential defendants.

There was also the challenge of getting to onboard institutions to take part in the research process. This was especially the case considering that the research is based on empowering the youths through technology. This means that that identifying the respondents would involve engaging them in their institutions and centers of learning. There are however cases where the institutions are unwilling to allow the field team to use their premises for research related activities.

This barrier can, however, be overcome by having a strong personality and not losing confidence. The researcher should not stop at the first rejection, but rather, he should be persistent with the request. The researcher may for instance engage other methods to the research to try and win over the interviewee (Wilson et. al. 2008). At the same time, the researcher should as well try to pursue other alternative avenues through which he can meet the respondents.

3.6 Ethical considerations

In the process of the research, the research will have to take into consideration various important ethical considerations. The first will be respecting privacy and confidentiality. For instance, it is important that before the researcher engages the respondent in sensitive questions, they should first ask them whether they are willing to talk about the subject (Ritchie, et. al., 2013). This avoids any instance of putting the respondent in an awkward situation. The researcher also needs to follow an informed consent rule. This ensures that the participants are taking part in the research with a full view of the risks and benefits involved in the same. Finally, it is important for the researcher to ensure that they at all costs avoid multiple roles. This may involve engaging in relationships with the respondents that may lead to an impairment of the professional relationship or that may lead to exploitation or harm to others (Silverman, (Ed.) 2016). This can be dealt with by ensuring that the researcher does not get too close or attached to the respondent.

3.7 **Trustworthiness of the data, site, samples**

In research, it is imperative that the trustworthiness of information used for the research is verified. This can be done through various steps depending on the type of data and the source of the information (Morrow, 2005). For the data that was gathered from the field, verifying its trustworthiness can be done by eliminating any form of bias from the respondents. Bias among the respondents comes in especially when the respondent is in one way or the other affected personally by the subject (Rolfe, 2006). This was eliminated by making sure that there was a separation between the Respondents and the subject matter. For the case of online articles, the credibility was ensured by confirming that there were independent sources listed at the end of the source (Rolfe, 2006). Additionally, this was also verified by making sure that the author was identified and contact also provided.

3.8 **Expected outcome**

Youth empowerment involves a multi-level construct that that calls for the involvement of both individual and different organizations. In essence, it involves the effort of various involved stakeholders who share in the belief of empowering the young people through crafting technology in the education system. From the research, it is expected that by crafting technology through the education system, youths are bound to be the major beneficiaries. However, the knowledge and skills that they would attain through these programs would prove to be as important to the society especially considering that we live in a digital generation.

3.9 Work plan or timeline

Given the nature of the research, this is a project that is bound to take some time to accomplish. First, there is the need to assembling different stakeholders and resources that would be useful in conducting the research. A clear plan on how the research will be conducted and information from the field gathered will also have to be put in place (Baruch and Holtom, 2008). Some substantial amount of time will also be required for analyzing the data from the field and finally coming up with a finding. For a clear and elaborate piece of work, this project is bound to take a period not less than a year to accomplish.

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Students Attitudes towards Group Work in Language Classroom

Amir Atef

The British University in Dubai

Abstract

Collaborative learning has been adopted as a teaching technique in ESL classes in last three decades. Teachers use CL based on recommendations of researchers and linguists who wrote very positive feedback on the same. Students' attitudes and feedback to collaborative learning, i.e. group work are highly crucial to determine an aspect of success in the teaching-learning process.

This research is an attempt to investigate the attitudes of students towards group work activities they perform in English language classrooms.

Introduction

Collaborative learning is a term that can be used interchangeably with cooperative learning as well as group work (Nunan 1992; Clark et al. 2007). Groupwork is part and parcel of collaborative learning and the term is still being used in some research (Pica and Doughty, 1985; Flowerdew, 1998; Melles 2004; Chen and Hird 2006; Jiang 2009) and it is used to indicate CL as an umbrella for such instructional techniques. It is worth mentioning also that the researcher in this study used the term group work to indicate collaborative learning and most importantly to accommodate the academic jargon to make it easy for students to understand questions in interviews and surveys conducted to support the study.

Gokhale (1995, p. 22) defines CL as "an instructional method in which students at various performance levels work together in small groups toward a common goal''. In general, it indicates the process of

assigning students into different groups with academic tasks to accomplish within a given time frame; this process serves as a classroom activity that language teachers use to enhance students' interaction and limit the teacher role in class to a more effective facilitator rather than a knowledge transmitter in a traditional language classroom.

Kagan (1994) emphasizes that there are five main components that enhance group work and they are positive interdependence that guarantees the success of all members who depend on one another in the group, individual accountability in which each member feels responsible, equal participation in which members share work equally, simultaneous interaction in which students' response provide feedback, and group processing in which students can develop leadership and communication skills.

Literature Review

One of the main theoretical frameworks that needs to be mentioned here is Vygotsky's sociocultural Theory SCT which stresses the inherent nature of learning as a social process depending on the Zone of Proximal developments that involves the interaction with a more advanced learner/peer (or a teacher) in a social learning context. Vygotsky defines ZPD as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Mind in Society. By L. S. Vygotsky. (Pp. 160; £3.00.) Harvard University Press: London. 1981., 1981). Social interaction is viewed as a prerequisite for the growth and development of cognition (DONATO and MCCORMICK, 1994)and the physical tools that help human interaction cannot be separated from the

social environment in which it is carried out (Wertsch 1993). In other words, mental functions are "intertwined with sociocultural determined factors" (van Lier, 1995).

Vygotsky (1978) believes that learning is first mediated on a social level between a child and other people in his or her environment, and then this learning is internalized by the child on an individual level. Secondly, learning on the social level often involves mentoring provided by more knowledgeable persons, either by adults or peers, who engage in activity with less experienced persons in a process of guidance or collaboration. To exhilarate learning to process from the social to the individual level, language serves as a psychological tool to adjust objects, others, and oneself in organizing functions that are crucial to cognitive activity.

The distance between student's actual level and their potential level marks the progress and attainment of their learning through working with more knowledgeable peers who can provide less able students with different ideas and creative solutions and various techniques to process thinking and production of output especially in a language context. Accordingly, students who are less able feel more confident working with more able students; they develop their level naturally and use this sense of positive interdependence to reach next level in the learning and achieving academic objectives set by teachers.

Another important framework of Collaborative learning or group work is second language acquisition; the theories introduced in SLA literature stress the importance of collaborative learning or groupwork in the process of second language learning. Among these theories are the Input Hypothesis by (Oller and Krashen, 1988) and the Output Hypothesis by Swain (SWAIN and LAPKIN, 1995)Both theories suggest that learners during group work exchange a great amount of comprehensible input and output which serve their language acquisition. (Ghaith and Yaghi, 1998) also found that CL enriches the language

classroom with comprehensible input as well as promoting frequent and communicative classroom talk in a supportive environment. Generally many SLA experts believe that the interactive nature of groupwork boosts learners' ability to reach a higher level of language acquisition and proficiency due to the fact that learners exchange input and output in a friendly social setting and sometimes temporarily away from teachers' interference

The motivational nature of Cl or groupwork is also of great importance and it helps make groupwork a successful teaching practice in SLA. (Rossiter and Dornyei, 2001)further note that, groupwork contexts students learn to work with their peers and accordingly the learning responsibility is shared among learners. Unlike the traditional classroom in which a competitive atmosphere is prevalent Students are praised and rewarded as a team working together with the same work spirit and sense of. Students can also work wholeheartedly in the group because of their cohesive ties. Johnson et al. (1994) explain that group cohesiveness is an index of the level of group development, and it determines peer interaction, which in turn determines the learning outcomes. Slavin (1995) further indicates that cohesiveness of groups increases their productivity level.

(DÖRNYEI, 1994)therefore views groupwork or collaborative learning in general as an efficient means of building teams with a high sense of self evaluation. Students turn into independent learners who can control their learning experiences and processes.

The study reviewed here looked at a one-year investigation into the teaching of English through collaborative learning and groupwork activities in Hong Kong secondary school classrooms (Sachs, Candlin and Rose, 2003).

The 520 student candidates, belonging to different English language levels, were from three local secondary schools. Students were taught in English which was the language of instruction in addition to the mother tongue,Cantonese. Students discipline problems and lack of motivation were evidently present in the secondary school that had the lowest language proficiency level. On the other hand, there were no evident similar problems in the other two schools and students had proficiency levels ranging between average and advanced; in other words, speaking English was a common daily class practice.

The number of participating teachers is eight, and six of them have literature degrees from universities while only two had teachers training certificates. All the teachers have more than 3 years' experience and some of them have a round 8 years.

Launching the Project

The researchers started the project by giving professional development training to the school teachers on cooperative language learning and groupwork to make teachers get used to organizing their classes conducting related activities in smooth manners. The workshops include introducing the meaning and techniques of cooperative learning in language, task based learning, class groupwork observation, and sharing groupwork in addition to reporting to ease the flow of data collections.

Materials Design

The research team utilized the schools' workbooks and syllabuses to design tasks based on cooperative learning activities. Tasks are given to teachers to use in class and teachers ,in their turn, independently design their own tasks at a later stage and use them on weekly basis together with the tasks given by researchers.

Feedback and Discussion

The results of the pre-test and the post-test gave clear results. The group which was introduced to cooperative learning and groupwork did not outperform the group which did not. The researchers indicate that results don't necessarily compare traditional language teaching to cooperative learning and therefore the results should be interpreted with reservation and caution.

Students' Feedback on Cooperative Language Learning

Through class observation, the researchers reported that students feel happy and more interested in learning English in such a new way. Students feel free and more relaxed in working with their peers. They enjoyed their group discussions even if they must deal with difficult tasks or questions. Students comments also give positive insights especially from high achievers who find a good chance in such activities to work on tasks based on their level(challenging). Unfortunately, in traditional language classes, high achievers do not get the chance of meeting challenges; teachers tend to focus on low achievers and average achievers. On the other hand, low achievers have very good chances of exposure to more able peers and they communicate more often, unlike the case in traditional language classroom. So all in all, both low achievers and high achievers find groupwork activities to be very useful and entertaining while they are learning.

In 1999, the project was completed and the researcher conducted series of interviews with the same eight teachers to collect more accurate feedback on the experiment. Interviews were mainly about the degree of usefulness of cooperative learning and the limitations or negative aspects of using this approach in the Hong Kong classroom context. Most of the teachers reported that groupwork is very useful and engaging to students. They also supported the fact that both, more able students as well as less able students, benefited from these cooperative learning activities because they had more opportunities to use the language interactively with peers who could help them with thinking processes, decision making, and error correction. However, teachers also mentioned some of the

negative aspects or limitations they faced during cooperative learning activities. First, weak students do not have enough proficiency to communicate with peers during group discussions. Second, the tight schedules and the limited teaching time in class as they noticed that groupwork activities are time consuming. The latter could be viewed as the reason for teacher's reluctance to use groupwork activities.

The project is considered a very brave experiment to challenge both teachers and students to get out of their academic comfort zone and try a new approach that is both engaging and beneficial in terms of language teaching and learning. Both teachers and students have been accustomed to the traditional classroom in which a teacher is a knowledge giver and the students is a passive knowledge receiver.

Research Question

The study aims to find out the students' attitudes towards groupwork or collaborative learning; in other words, do students have positive or negative attitudes towards working in groups in language classes?

Research Methods

The research adopts the mixed method approach as it operates the using of a survey and the conducting of interviews to gain more insights about the students' attitudes towards collaborative learning.

Setting:

The research study is conducted in an American curriculum school in Dubai, Al Garhoud area in March 2017. The school offers the common core standards to all grade levels from KG to grade 12 who, then

obtain a high school diploma to enroll in university. The school has an American system of elective courses among which students of high school especially grade 12 study various courses to enable them enroll in different university majors. The school permission is obtained to conduct the study as well as permission from parents. Students also have been very excited to participate in this study because of the interesting topic that relates to their daily academic life.

Participants

The participants in this study are students in grade 12 in the above-mentioned school; the number of students who participated in the survey are 56 students from different classes. Students study various majors like biology, media, advertising finance, accounting, and physics. Participants are aware of group work activities as they are used to be assigned in groups during their English classes in particular as well as other subjects in general. The interviews were conducted with many students who come from different classes, mainly girl's sections. The interviews were also conducted with some English teachers who in turn use collaborative learning or groupwork activities in their classrooms. The teachers participating in the interview stage have been teaching for many years and they are quite experienced teachers in the field.

Research Tools:

The study is conducted in class rooms in the school premises. The researcher uses a Sony Voice recorder (IC recorder) that has a capacity to record up to 90 minutes to conduct semi-structured interviews. The voice recorder has a built in memory card that can transfer audio files to computers through USB ports. The researcher also uses a survey on groupwork that was conducted through a Smart Learning Platform (Frog O.S.) used by the School's teachers, students, and administration. The survey had six questions

written in simple and direct language to make it accessible to students to respond spontaneously and quickly. The survey is designed by the researcher and results are automatically generated by the Frog Drive. The Frog Drive is installed on all students' laptops and they have their user names and passwords to access material sent to them by teachers. It is easy and smooth for students to take the survey and submit their answers. The smart Learning Platform provides built in poll tools that provide numbers and statistics of surveys. The above mentioned tools are very practical, reliable and easy to use and the researcher decides to use them to maintain the highest possible level of smoothness, validity, and accuracy.

Data Collection

Students interviews are recorded and transcribed to make it easy for the researcher to follow up and trace participants' choice of words and tones expressing their attitudes towards groupwork. As for the survey, results are automatically generated through the Smart Learning Platform, Frog O.S. (Frog Drive) and they are easy to interpret and analyze.

Results and Discussion

Students Survey

The survey results are clearly indicative and are considerably positive in favor of group work. Students showed very positive attitudes towards group work. Approximately 58% of the students stated that group work is always used by their teacher while around 45 % stated that group work is sometimes used in class. Over all the high percentages received in response to this survey question (figures 1) reflect that students are used to group work that is regularly assigned by their teacher. Therefore ,a high degree of familiarity with the survey topic is established and this involves more focused answers and results.

Figure 1

The second survey question is among the most important indicators of students' attitudes towards groupwork as it examines the level of enjoyment students undergo during working in a group. Approximately 70% of participants confirm they enjoy working in a group,21 % do not know specifically, and only 9% have negative attitudes towards group work (figure 2).It can safely be stated that group work activities are highly enjoyed by most students in the study

Figure 2

The third question is another major indicator as it asks students about the usefulness and beneficialness of groupwork (figure 3). Almost 60% of participants view groupwork as helpful to their learning while only 7% see the opposite(unhelpful). Surprisingly 33% do not give a specific answer and choose the "I do not know" choice. Possibly, those students who are undecided regarding this question are those who just abide by the rules and do groupwork as they are instructed and accordingly they perform tasks without understanding the objectives underpinning them or reflecting on the benefits of such tasks.

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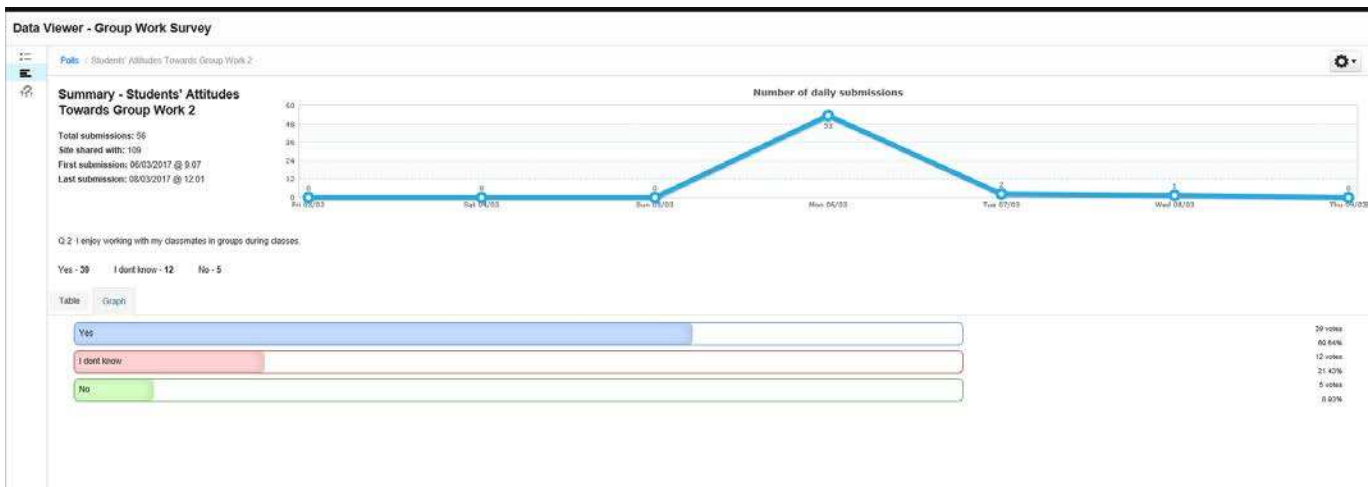
Figure 3

The fourth survey question examines the social aspect of groupwork as it asks students about getting along with peers/team members. Around 90% of participants positively confirmed that they get along easily with other team members. Only 10 % of participants are negative about the social aspect of learning in a group (figure 4). Again here we can safely conclude that an overwhelming majority of students/participants enjoy the social aspect of bonding with team members (bonding with team members is one key kill that underpins the use of collaboration learning.It is worth-mentioning here that collaboration and communication are among the top 21st century skills to be obtained by students.

Figure 4

The fifth survey question is another major indicator and essential in determining the positive attitude of students towards learning fast in a group; the question subtly and indirectly compares collaborative learning to the individual traditional teaching method. Approximately 45% of participants believe that

they learn faster and grasp information easier when they work collaboratively. Around 29% of participants believe they do now learn faster in groups. Surprisingly around 27% of participants stand on the fence by choosing the "I do not know'' choice.
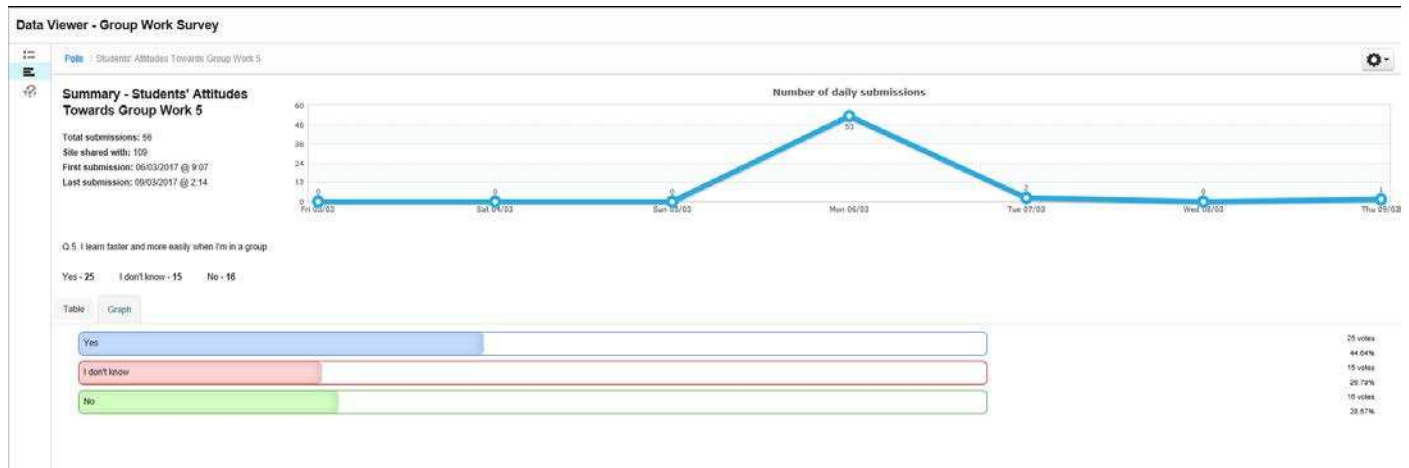
Figure 5

The last question examines the areas that students prefer to collaboratively work in. 55% of students choose learning vocabulary using groupwork while around 42 % prefer to do group presentations. Grammar takes the least of choices and preferences with 4% only (figure 6). As a disclaimer in this question, it is worth-mentioning that students mainly work in groups on vocabulary lessons as well as presentation; grammar lessons have not been approached or introduced by the teacher in groups throughout this academic year.

Figure 6

Interviews

The interviews conducted with students as well as some teachers prove the same positive attitude of students towards collaborative learning. A few students are interviewed and most of them believe that group work is very useful and beneficial for students; they indicated that they learn better in a group and that learning is much fun when it is done collaboratively. Susan Al Muhajer, a female student in 12A says "Yes definitely. I work best when I'm around my friends. I think it's really beneficial for me and it brings out the best in me so I work most efficiently when I'm around my friends''.

Another student, Dania, passionately says'', I definitely enjoy groupwork because, for me, when I work alone, I feel like... Now when everyone works alone, everyone has his/her own job. When working in groups, it's like you share many ideas together and you're more creative''.

One student's interview comes as an individual exception to the unanimous approval and general positive attitude of participants towards groupwork. Participant Dana Lahham, says'' I don't think its beneficial at some point because as I said they(students) take advantage of it so they start just slacking off and they don't work at all and they just depend on other classmates to just work while they just watch and so I think just some people work and the others just watch so they take the credit for nothing.''

A few teachers have also been interviewed and all of them have very positive attitudes towards collaborative learning. A Middle School English Teacher, Sara Ghazi states'' Well, groupwork is done in classrooms or at home depending where/when its assigned for different subjects. For us, in the English department, we do it according to different skills. I found it effective- especially for the reading skills because students like work together, cooperate, help each other, different skills and the outcome will be really beneficial for the students as well as for the teachers. "

Findings

In general, participants are used to collaborative learning activities in their classrooms; the percentages of students conducting groupwork support this finding. One of the main findings in this study is that a majority of students enjoy groupwork and believe it is "fun" to learn this way with your classmates while developing social bonds and a spirit of teamwork (second findings which helps accomplish the task at hand. Presumably, the second finding leads to the third one which is related to the usefulness of collaborative learning activities according to students'; a majority of participants view groupwork as an effective learning tool. The same vision is shared by teachers who have been interviewed who confirmed that cooperative learning is a powerful teaching technique in language classroom. The interviews correspondingly showed a highly positive attitude of participants towards groupwork. The audio recordings clearly support this conclusion based on participants' word choices that have positive connotations like '' beneficial'', 'work best in a group'', ''brings the best out in me'', '''more creative''. Similarly, students' tones are clearly passionate and positive when they are asked about groupwork.

Possible Limitations

A possible limitation is that the study is conducted on 56 students out of a total of 100 because of errors on the system of smart learning that made it difficult to the rest of students to participate; It is also worth-mentioning that no male participant takes part the interviewing stage. In future studies the researcher will make sure to conduct similar studies among more students and to involve more male students in the interviews to gain more insights on both genders' attitudes regarding groupwork activities.

Recommendations for Teachers

Teachers should consider/continue using collaborative learning activities in language classrooms. Most of students have good perceptions of such group activities and they indirectly learn while having fun and social satisfaction. Teachers should increase the allocation of activities in a collaborative learning environment rather than a traditional class environment of passive individual receivers; a teacher should act as a guide on the side not as a sage on the stage. However, the researcher believes that it may be also useful to incorporate some tasks to be done on individual basis to keep engaging the minority of students who have negative views and attitudes of groupwork. Teachers are also advised to monitor group activities or even joining some of the groups during actual activities to facilitate and assures the success of team members who may get distracted in some cases. Including collaborative learning activities in the curricula and lessons plans is a must to cope with fast evolving teaching techniques nowadays. One last recommendation is to train students on how to manage the time during such groupwork activities as time management is a key factor for success in the activity at hand and in life in general.

Conclusion

Collaborative Learning or groupwork is a technique deeply rooted in Vygotsky's sociocultural theory and plays a major role in second language acquisition.CL involves students working together to achieve an assigned task through which they show cooperation, work division, responsibility, and commitment. Literature written regarding students' progress and acceptance indicated positive attitudes in general. The research study conducted proves a substantially positive attitude of students and teachers regarding the use of groupwork. The researcher recommends using timely managed collaborative learning activities in English language classrooms, yet to some extent individual based activities should be

incorporated in order to accommodate other students who have negative views and attitudes towards working with classmates in groups and those who prefer to work individually.

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Appendices

Student Interview 1

"So good morning. I am going to interview you regarding your attitude towards group work in the classroom. So, can you please identify yourself?"

Morning. I'm <name> in Dubai International School. I'm in grade 12 and I'm a student.

"Okay. <name>, what is group work to you?"

I guess it's a few people working together to achieve a certain goal.

"Okay. And now my question to you is: do you enjoy working in groups in the classroom?"

Personally, I don't because I see my friends they take advantage of the fact that there are other people working with them so they let the other people take/do all the work and they just sit back and watch.

"Okay. My third question to you is: do you think working in groups in the classroom for students is beneficial and effective or the opposite?"

I don't think its beneficial at some point because as I said they take advantage of it so they start just slacking off and they don't work at all and they just depend on other classmates to just work while they just watch and so I think just some people work and the others just watch so they take the credit for nothing.

"So if we have like a group of four or five, approximately how many would work effectively in this group?"

From my experience, only one or two which is usually the person that cares the most about their grade.

"Thank you so much."

Thank you.

Student Interview 2

"Okay, good afternoon. I am going to make this interview about group work. Kindly identify yourself."

My name is <name>. I'm a 12th grader in Dubai International School.

"Alright so tell me what you think of group work. What is groupwork?"

Groupwork is when you come together with your friends or whoever the teacher chooses and you work together to produce something whether it's a presentation, a paper, research, whatever it is. That is group work for me.

"Okay. Personally, do you enjoy working in groups?"

Yes definitely. I work best when I'm around my friends. I think it's really beneficial for me and it brings out the best in me so I work most efficiently when I'm around my friends.

"So do you think that group work is effective and beneficial?"

Yes. Yes, definitely.

"Do you think that everyone in the group learns something?"

Yes, definitely because I think sometimes students learn better when they're around each other. Like rather than having a teacher tell you: this is what you have to do.. this is what you should learn for the exam.. etc. you're with your friends, you learn better and faster.

"Okay, thank you so much"

Thank you.. you're welcome.

Student Interview 3

"Okay, good afternoon. Kindly introduce yourself."

Hi, I am <name> from Dubai International School. I'm a 12th grader.

"Okay. <name>, could you please tell me what do you think of group work?"

I think group work is when you have an assignment to do or something. It is either an activity or something you have to do so when you all work together, everyone has a specific job and you contribute together and you all produce the same idea.

"Okay, how about your personal experience with group work? Do you enjoy it.. working in groups?"

Yes, I definitely enjoy groupwork because for me, when I work alone, I feel like.. Now when everyone works alone, everyone has his/her own job. When working in groups, its like you share many ideas together and you're more creative.

"Okay. So you think it is a positive thing? Beneficial for students?

Of course. Yes. Yes.

"Do you think when we have a group, everyone works equally?"

Now sometimes when you work on different levels or when the members of the group don't like each other, some people work while the others don't. Some people are lazy and they depend on others but usually when you work together and people who know how to use groupwork good, they contribute together.

Teacher Interview 1

"Good afternoon. This is an interview about groupwork with one of the teachers. Kindly introduce yourself."

My name is <name>. I am an English teacher and I teach grade 8.

"Okay, Miss <name>. Can I ask you a few questions about groupwork?"

Yes, sure.

"Alright, my first question is about groupwork. How can you define groupwork?"

Well, groupwork is done in classrooms or at home depending where/when its assigned for different subjects. For us, in the English department, we do it according to different skills. I found it really effective- especially for the reading skills because students like work together, cooperate, help each other, different skills and the outcome will be really beneficial for the students as well as for the teachers.

"Okay. Do you think students enjoy working in groups?"

Yes they do. I think that they find it a little bit more interesting for them more than like being individual. Even though for the teacher I think its more difficult and more annoying. Its difficult for us to handle it, especially with these crowded classrooms. But for the students, I think they enjoy it more.

"As a teacher, how often do you use groupwork in the class on a scale of 1 to 10?"

Let me say 7/10.

"You, as an individual learner if you have like a professional development, would you prefer to be in a group in the session?"

It depends. Yeah. Sometimes. But sometimes, you need to do your job as individual work because you need to research, you need to concentrate because as I said before: groupwork has some drawbacks as well because its noisy and it has to be noisy actually because there must be discussions so peers would be sharing their opinions.

"Which position in the group would you fit in? A team leader, a member, or an assistant?"

Actually, I can be a leader.

"Because you are a teacher, or?"

No, because I like to be.

"This is your character?"

Yes.

"Do you think of any disadvantages for groupwork in the classroom?"

Yes of course. Other than making noise, sometimes.. some students depend on other students like I can see this in my classroom. Whenever we do groupwork, I have to push some students to work because they depend on their friends even though we assign tasks for each one but still they cheat sometimes or they just let someone else do it for them because they think at the end the outcome would be one.

"How can you overcome such a problem if you have this problem in a group?"

The problem is that you have to be attentive all the time. Like if you are concentrating on one group, watching their work and checking what they are doing, as I told you, those students who are always dependent on others, they take advantage of this. So you have to be really careful and watch all the groups at the same time which is so difficult for us as teachers.

"Do you think you can kater for the needs of four or five groups in the same classroom at the same time?"

We are doing it. It is difficult but we are doing it.

"Do you think its successful? How far on a scale of 1 to 10?"

Yes. 7/10 as well. Its not perfect because of the crowded classroom.

"Thank you so much."

Welcome.

A Comparative Study of the Gifted and Talented Policies in the UAE, UK, USA, and Australia

Heba Daraghmeh

The British University in Dubai

Abstract

Along with the global reform in the educational field, gifted educational policies are developed taking a universal shape. Transfer, diffusion, and convergence in the policies had generalized their characteristics. In response to the international priorities, Abu Dhabi Education Council (ADEC) had developed a general policy for special education including policies for Gifted and Talented (GT). In this content analysis research, ADEC GT policy is compared to the GT polices in the United Kingdome, Australia, and Georgia, Oklahoma, Kentucky, and Arkansas in the United States of America aiming to pinpoint the global standards on GT education policies, identify the gaps existing in ADEC current policies for GT students, and propose the elements needed to fill the gaps in order to ensure the international recognition and competitiveness. The findings revealed a serious action needed to review the policy and fill the gaps.

Keywords: Giftedness, Educational Policy, Gifted and Talented Policy, Identification, Acceleration, Programming.

1.0 Introduction

One of the most developments in the educational field is the global reform. Education policies are being developed, changed, implemented, and reviewed in different parts of the world that they become having a universal shape. Verger et al. (2012) had referred to this situation as Global Education Policies (GEP). Other researchers have used different terminology such as Policy Diffusion, Policy Transfer, Policy Convergence, Policy Borrowing, or Policy Isomorphism to characterize the status.

Studies about policy diffusion indicate how policymakers are affected by the experiences of others. However, Butler et al. (2015) concluded that policymakers tend to be affected more if a partisan competitor successfully implemented a policy elsewhere in the world. Local political interests may strongly distress the adoption of a particular policy (Stone 2001). Yet, willingness to learn from others' experiences is a driving force for policy diffusion. Similarly, Meseguer (2005) stated that mechanisms of policy diffusion stimulate rational learning. Policy transfer is another terminology used to describe the sequential spread of policies from one setting to another (Stone, 2001).

Policy Convergence is a term used to describe the development of a policy in different settings without necessarily sharing a common link between them. Egan (1998) pointed out policy conversion as a result of 'Standardization of standard-settings', which is the case in the educational context nowadays where emulation, harmonization, elite networking and policy communities, and penetration are distinguished as triggers of policy convergence (Colin, 1991).

Phillips & Ochs (2003) suggested the use of the term 'Policy Borrowing' when the educational institute is dissatisfied of the current conditions referring to this as 'initial impulse'. Cross-national attraction, Decision, implementation, and internationalization are the stages described in his model admitting the inadequate use of the term 'borrowing' in literature.

Gifted and Talented (GT) education is getting to take the same global model. It is becoming a mandate in many countries around the world including the gulf region particularly in the United Arab Emirates. Planning, decision-making, funding, programming, and accountability are focal points for decisions makers and are key aspects to be considered when developing and implementing their policies. Hence, the need to study how GT policies are developed and employed to maximize the effectiveness of the different GT programs. Examples of how GT policies expanded are by convergence or by isomorphism.

The development of the global schooling model led to the institutional isomorphism. Drenzner (2001) stated that policy isomorphism resulted from the expansion of the international model of schools. Meyer et al. (2013) stated that schools around the world reflected on their Program of International Student Assessment (PISA) results by both policy convergence and policy isomorphism. Policy convergence happens when schools responded to those results with similar implementation of policies e.g. policies to enforce the use of the same curriculum. While in policy isomorphism, the reflections on PISA results might enforce a change in curriculum but not necessarily the same.

1.1 Problem Statement

The United Arab Emirates has initiated various programs for GT education. Both Ministry of Education (MOE) and Abu Dhabi Education Council (ADEC) stated policies to take care of gifted and talented students. However, compared to policies in other countries with vast experience in gifted education, there are still areas of improvements that would fill the gaps in the current policy.

1.2 Purpose of the Study

The researcher aims to compare the gifted and talented education policies in the United Arab Emirates, particularly ADEC policy to policies available in the United States of America (USA), United

Kingdome (UK), and Australia (AU) using the baseline of the "Guide to State Policies in Gifted Education" published by the National Association for Gifted Children (NAGC). The researcher will identify the gaps, and propose amendments and/or addendums.

1.3 Research Questions

By conducting an in-depth review of the GT policies around the world, the researcher will try to find answers for the following questions:

- What are the global standards on gifted and talented education policies?

- What are the gaps existing in ADEC current policies for gifted and talented students? (if there are any)

- How can ADEC policies be improved to fulfill the gaps (if there are any), in order to ensure the international recognition and competitiveness?

2.0 Literature Review

The researcher explored more than forty research papers and specialized book and found that the development of the educational policies, development of a gifted and talented policy, and the components of gifted and talented policies are key aspects to serve the research.

2.1 Development of Educational Policies

Throughout the period after the Second World War, different studies where conducted to affect the formation of the educational policies in the UK and the USA. The diversified population of the USA schools led to advances in educational policy making (Spodek & Saracho 2014). The huge growth of bilingual students produced a challenge to educators to develop and implement global educational policy models that would cater for the population needs on the federal and the states' levels. In the UK the status seemed to be different. Chitty (2014) discussed various concepts related to the development

of changing educational policy after the Second World War in Wales, Ireland, Scotland and England. The development of the Education Act in 1988 was driven by the writings and the speeches of economists and philosophers during that period. New policies were stated and implemented by the Policy Unit in Downing Street to not only prepare students for future jobs, but also help them excel cognitively to be better community members.

Compared to USA and the UK, Australia gave a less social and political theorizing on educational policy (Fulcher, 2015). Policies were mostly driven from the Victorian educational apparatus. Researchers in Deaken University stated that the educational bureaucracy opposed the democratic objective of the Commonwealth written policy. Fulcher (2015) pointed out that educational policy should be made on different levels in response to the government policies in order to avoid further conflicts.

2.2 Development of a Gifted and Talented Education Policy

Purcell and Eckert (2006) stated that the interest in GT education started in the middle of the eighteenth century. Since then, researchers tried to make connections between the advances in the field and the historical turning points. Fluctuating interests were affected by the economical, technological, and ideological cycles.

GT education became a major component of the educational reform. It has been mandated in many countries around the world and different initiatives needed rigorous policies to be translated into actions in schools and classrooms. Swanson (2007) stated that understanding the impact of a policy would justify the policymakers' intention to change the practice. GT policies are found to be vital for the educational reform and thus, it is crucial to include aspects related to equity, curriculum, and grouping.

Gifted education is found to be a key component of the modern global educational model. It is

mandated in all states of the USA except for California, Missouri, North Dakota, Utah, Wyoming,

Connecticut, District of Columbia, Illinois, Massachusetts, Michigan, New Hampshire, New York,

South Dakota, and Vermont. Gifted programs are implemented and fully funded in Florida, Georgia,

Iowa, and Oklahoma (davidsongifted 2017). According to the NAGC (NAGC 2017), although the

USA federal government does not provide guidance or have requirements for gifted services, the

Council of State Directors of Programs for the Gifted (CSDPG) established partnership with the

NAGC to support the current projects.

As a result of this partnership, in 2014-2015 the State of the States in Gifted Education survey was

conducted and a report was compiled highlighting several themes such as the diverse approach in

gifted education across the states, the identification requirements for the majority of the states, funding

types, forms of training for educators of GT students, and the significance of having a federal policy

for gifted education that could benefit GT students, their families and GT educators as well. Varied

policies existed for the different states. No consistent approach was noticed.

Researchers produced different guides to write policies for gifted and talented. Vasilevska (2011)

pointed out the significance of designing a unique policy for gifted and talented suitable to the school's

context. Therefore, every school is responsible for the educational development of its' students and yet

accountable for designing proper learning environment (VanTassel-Baska, 2006)

2.3 Components of Gifted and Talented Policy
According to Lord and Swanson (2016), literature on gifted education lacks evidences about the

impact of having a policy for gifted and talented. Yet, a positive influence is noticed in the states on

gifted programs. NAGC (2016) suggested basic components of the policy that can be similar to the

elements identified by Passow and Rudnitski (1993) as well as Van Tassel- Baska (2005), Purcell and

Eckert (2006), Attfield (2009) and Gallagher (2014).

Purcell and Eckert (2006) suggested that a good quality gifted and talented policy should maintain the

following characteristics:

- A policy should be clear and easy to understand and interpret

- A policy should cover all outlined components based on standardized guidelines

- The components of the policy should be connected and logically related

- The policy procedures should be feasible and applicable

- A policy should be based on research and best practices in the educational field

The following are the main components of a GT policy:

1. Rationale and Goals

2. Identification

3. Program and Curriculum. This may include:

   - Grouping

   - Acceleration

   - Differentiated Curriculum and Assessment

4. Professional staff and Personnel Preparation

2.3.1 Rationale and Goals

Policy rationale and appropriate goals need to be clearly identified at the beginning of the document

that would reflect the school's or the district's philosophy (Purcell and Eckert 2006; Vasilevska 2011).

NAGC (2016) pointed out the significance of presenting a rationale, not only for the policy as a whole, but also for every component in it. Freeman (2008) stated that a rationale needs to tell why the policy is written, how does it reflect the school's vision, as well as its targets. Similarly, the goals should inform why the policy is developed and what does it intended to achieve.

2.3.2 Identification

Identification procedures are considered to be the most critical step in a GT program (Purcell & Eckert 2006; Attfield 2009; NAGC 2016). Heller (2004) stated that in order to identify the GT children, four aspects need to be taken into consideration: what needs to be identified, what is the purpose of the use of a specific identification procedure, how can GT children be identified, and when is the best time to do that. Purcell and Eckert (2006) argued that an identification policy need to address the following areas: an operational definition of giftedness, clear identification of all categories of giftedness, different criteria suitable for the different giftedness categories, a process of linking the identification procedure to the program a GT child will be enrolled in, and equitable decision making processes. Similarly, NAGC (2016) presented a comprehensive guide for identification procedures in a GT policy that should include an operational definition for giftedness and talent, use of multiple criteria for identification to prove the school's accountability far from referring to a single test score, use of adequate instruments that match the operational definition and are sensitive to the children's demographics, social, and economical backgrounds, allowing for placement options, addressing different abilities/intelligences, connecting between identification, curriculum, and later offered services, outlining decisions made upon identification, and providing an appeal procedure.

Vasilevska (2011) suggested the use of checklists that can be utilized by the parents, teachers, peers and the GT child himself, in addition to an analysis of a product or a portfolio.

2.3.3 Program and Curriculum

A GT policy must identify various programming options for schools and districts (VanTassel-Baska 2005). Those programming options should match with the assessment instruments used for identifications. In addition to the inclusion of the academic, social, emotional, and career guidance as an essential constituent of the services provided within the program (Purcell & Eckert 2006).

The NAGC suggested key elements of programming and curriculum policy for GT children as follows:

1. Grouping arrangements

2. Specific number of weekly contact hours for the gifted program

3. Description of the curriculum options

4. A link between the curriculum for gifted and talented and the national and international standards

5. Embedded higher cognitive skills within the curriculum of different subjects

6. Identification program modifications need for at-risk and highly gifted children

7. Social and emotional counseling

8. Definition of the program follow-up committees

2.3.3.1 Grouping

A wide range of options can be deliberated for the grouping component in a GT policy, ranging from differentiated instructions and a classroom flexible setting to having special classrooms and schools. VanTassel-Baska (2006) stated that a normal classroom setting would be less challenging for gifted children even with the differentiated instructions that may take place. Having special classrooms would expose gifted learners to a comprehensive experience and get a proper level of instructions. Archambault et al. (1993) pointed out that 84% of the class activities are directed to the whole class in a heterogeneous setting. According to the NAGC (2016) student's interests together with their abilities, social, and emotional need to be comprised in GT grouping policies. Therefore, grouping GT

children worth noting when developing a GT policy.

2.3.3.2 Acceleration

VanTassel-Baska (2006), the founding director of the Center for Gifted Education at The College of William and Mary in Virginia, stated that schools claim to provide education for all learners. Nonetheless, many of them ignore the gifted ones who used to face no real learning challenges while sitting bored in the classrooms. A set of basic options need to take place in each school entitled to provide proper education for GT students. Considering time as a crucial variable in the learning process; accelerated learning should be an option for GT students. An acceleration policy should include different elements; an early schooling entrance, an early schooling exit, in addition to an early college entrance policy aligned with latter mentioned options. Another important element in an acceleration policy is the curriculum flexibility (Passow & Rudnitski, 1993, VanTassel-Baska, 2006) that would offer students varied pathways suitable to their progression rates.

2.3.3.3 Differentiated curriculum and assessment

Curriculum and assessment should be differentiated and matched with the operational definitions. A differentiated curriculum should cater for all GT students' needs which can be determined by a proper curriculum design. Learning outcomes should also be well constructed and provide enough depth and complexity for a GT child (VanTassel-Baska 2006). All aspects of curriculum differentiation should be included in a GT policy.

2.3.4 Professional Staff and Personnel Preparation

Teachers' minimum qualifications and qualities should be included in a GT policy. That may also incorporate a link to the national and international requirements (NAGC 2016). VanTassel-Baska (2006) stated along list of critical requirements of GT teachers such as: being life-long learners, critical thinkers, self-motivated, appreciating new learning, and being passionate about their subject area.

In addition to the teachers' qualities, a GT policy should outline professional development policies and plans as part of the gifted programming standards. People involved in a GT program should receive an ongoing professional development opportunities that are implemented and mentored by experts in the field. According to Attfield (2009) the UK government had identified professional development as part of the lead teachers' role in a GT program

2.3.5 Program Management

The program management is accountable for the outcomes and is responsible for providing the intended service. Assessment and evaluation are significant aspects of the program management. Assessment refers to the systematic analysis of the services compared to the intended outcomes. While program evaluation is the process of generating data that can be used as a guide for decision-making (Callahan & Reis 2004). Appropriate evaluation questions need to be introduced based on new methodologies and phraseology techniques. The NAGC suggested that a GT program management policy should identify the following areas:

1. Nominations and identification procedures [SEP]
2. Program requirements retained for each grade level
3. Objectives and expected outcomes for each programming model
4. Duration and timeline of each programming model [SEP]
5. Student-teacher ratio in each programming model [SEP]
6. Planning procedures [SEP]
7. Training services for teachers engaged in the program [SEP]
8. Counseling and guidance for teachers and students[SEP]
9. Program evaluation procedures

3.0 Methodology

This research was conducted using qualitative content analysis approach. Zhang and Wildemuth (2016) stated that in a content analysis research, a researcher attempts to generate theories to understand meanings behind physical messages. Selected content or text should inform the research questions and should provide unique themes. Likewise, Holsti in (1968) (cited in Cohen 2007) confirmed that a content analysis research can be conducted for different purposes, one of them is to describe trends in a content and to audit it against standards, which is the purpose of this study.

Cohen (2007) and Cresswell (2013) stated that documents can be used to transcript a phenomenon. Yet, other factors happening at the same time need to be taken into consideration. Policy documents are examples of the multitude forms of documents. However, they could be highly biased as they were not intended to be used as research data. Therefore, validity and reliability of those documents are uncertain. Further aspects of validity and reliability will be discussed in a separate section below.

3.1 Data Collection

Guest et al. (2012) suggested two approaches for document analysis: Hypothesis-Driven (Confirmatory) and Content-Driven (Exploratory). In a hypothesis-driven analysis, the researcher determines the categories prior to reviewing the data and searching for occurrences of related text. A checklist may assist in the review process of the documents. Following a deductive orientation, specific coding needs to have a preset structure based on existing resources. Probability sampling should be used in this case. On the other hand; in a content-driven document analysis research, themes are identified while reading through text. Following an inductive orientation, open-ended codes are derived from data. Both probability or non-probability sampling can be used. For the purpose of answering the questions of this research, data was collected through a hypothesis-driven

(Confirmatory) document analysis. An approach used to audit the content against predetermined standards (Cohen 2007).

Official, published documents for GT policies for four states in the USA, GT policy of the UK, GT policy of Australia, were all compared to the GT policy for ADEC. Cohen (2007) suggested a list of questions that would be addressed when using such documents: what kind of document is being studied? what is it about? what was intended from creating such document? who wrote it? and what were the interests of the document writer?

3.2 Data Sampling

Purposive sampling was used to choose the text needed for the study. Zhang and Wildemuth (2016) confirmed the use of intentionally selected texts, which can inform the research questions being examined.

3.3 Validity and Reliability

Validity and reliability determine the quality of the research in the conventional positivist model. However, the situation is different in a content analysis research and thus ensuring the validity of a qualitative research is challenging (Bradley 1993; Cresswell & Miller 2010). It was also argued by scholars in the literature that the validity of the documents used in a content analysis study is not viable as they were intended to be used for objectives and audience apart from the research purposes. Bailey (2008) confirmed that among the different forms of validity, face validity and construct validity can be ensured in a documents' research. A researcher needs to exhibit the credibility of the study. Therefore, a qualitative researcher need to look for credibility, transferability, dependability, and confirmability (Merriam 1998; Zhang & Wildemuth 2016). Credibility of the research can be improved by, but not limited to, peer review and triangulation. The researcher cross-checked the credibility of the data by

triangulating the policy documents with the available records available on the official .gov websites

i.e. websites with governmental domains. For example, the content of the website

www.education.gov.uk was used to ensure a tie with the GT policy for the UK. Transferability is

another aspect a researcher needs to confirm for a content analysis study. This refers to the extent to

which the findings of the study can be applied to other context (Zhang & Wildemuth 2016). For this

study, considering the wide range of research well-thought-out in the literature review, transferability

can be confirmed. Likewise, to verify dependability and confirmability, the researcher continuously

audited the research process and findings by following a consistent approach (Lincoln & Guba 1985)

3.4 Instrument

For a content analysis qualitative research, the researcher is considered to be the main instrument

through examining the documents and generating themes and categories (Lincoln & Guba, 1985;

Merriam, 1988; Cresswell 2009).

3.5 Qualitative Data Analysis

Qualitative content analysis may include deductive reasoning (Patton 2002). Yet, the researcher had

analyzed the data based on the analyses of the available literature. It was hypothesized that a policy for

GT should include the following components: rationale and goals, identification, program and

curriculum, and professional staff and personnel preparation. A mind map was created using the

NVivo software to identify the link between categories and sub-categories as shown in Figure 1 below.
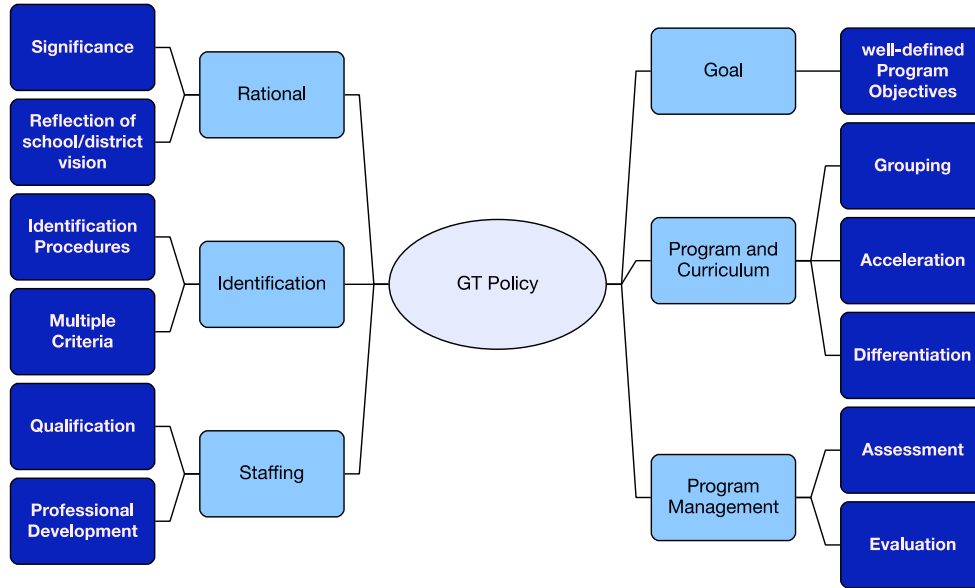
Figure 7 Categories and Sub-Categories of the Research

Accordingly, final codes were derived as per the coding framework demonstrated in the table below.

Table 1 Coding Framework

Final Coding Framework	Initial Coding Framework	Content within the studied text
Rational	• Significance • Reflects the school/district's vison	1. The significance of developing a GT policy 2. The policy reflects the school/district's vision and is aligned with it
Goals	• Well-defined program objectives	1. List of program objectives
Identification	• Identification Procedures • Multiple Criteria	1. Operational Definitions of Gifted and Talented 2. Use of Multiple Criteria for Identification 3. Use of proper assessment tools that are sensitive to the children's demographics, social, and economical backgrounds. 4. Ensure Identification process that match with the operational definition 5. Allow for Placement options 6. Address the different abilities/Intelligences 7. Connect Identification, Curriculum, and Services

		8. Well-defined procedures for screening, identification, and services 9. Identified appeal process
Program and Curriculum	• Grouping • Acceleration • Differentiation	1. Grouping arrangements 2. Specific number of weekly contact hours for gifted program 3. Describe curriculum options 4. Link the curriculum for gifted and talented to the national and international standards 5. Embed higher cognitive skills within the curriculum of different subjects 6. Identify program modifications need for at-risk and highly gifted children 7. Social and emotional counseling 8. Define program follow-up committees
Staffing	• Qualification • Professional Development	1. Minimum qualification (University based degree) 2. Link the policy standards to the national standards 3. Minimum qualification for the leaders of the program 4. On-going professional development
Program Management	• Assessment • Evaluation	1. Nominations and identification procedures 2. Program requirements retained for each grade level 3. Objectives and expected outcomes for each programming model 4. Duration and timeline of each programming model 5. Student-teacher ratio in each programming model 6. Planning procedures 7. Training services for teachers engaged in the program 8. Counseling and guidance for teachers and students 9. Program evaluation procedures

To support the research validity and reliability, the researcher followed a standardized technique that included: Data preparation, Definition of unit of analysis, development of categories and coding

scheme, testing the coding scheme on sample text, coding of the whole text, evaluation of the coding scheme, outline of conclusions and findings (Zhang & Wildemuth, 2016).

The Quantitative Data Analysis Software (QDAS) NVivo was used to analyze and interpret the data to fit the purpose the of the study. The software was developed by QSR International and is being used by researchers to analyze qualitative data (Gibbs 2002). The software was basically used to manage the data, keep track of the themes and codes as indicated in Figure 1 above, ensure the accessibility of data within the text, save query results as codes which are identified as nodes in the software, and finally visualize the data to facilitate an access to the outcomes and findings. Researchers raised some concerns related to the use of QDAS such as increasing the distance between the researcher and the data, in addition to excluding the analytical activities a researcher should retain while conducting the research (Gibbs 2002). Nevertheless, the researcher of this study ensured full control of the data and maintained a critical lens on the findings.

3.6 Limitations and Delimitations

According to Cresswell (2012), limitations of a documents analysis research can be the different interpretation of the text for the different readers/researchers, the unavailability or the difficulty to find the required information/documents, the incompletion of the content, and the inaccuracy of the documents. However, the researcher strived to obtain authentic documents through official resources i.e. official governmental websites. Yet, due to the large number of policies found for GT, especially the USA policies, the researcher had to identify a criterion to select a limited number of documents that can be studies within the allotted time.

3.7 Ethical Considerations and the Role of the Researcher

Cohen (2007) stated that an educational researcher should thoughtfully design and conduct a research

based on accurate procedures. Furthermore, a researcher should be objectives and explicitly declare how data was collected and analyzed. Therefore, all documents used for this research were published via official websites. Given that the researcher is the instrument for a document analysis research; she thoroughly read the documents and avoided any kind of bias. Additionally, all judgments, were reasonable and based on one criteria set.

4.0 Results and Discussion

Table 2 is summarizing the documents' analysis. Categories and Sub-Categories pertinent to the entitled policies are indicated by X. Findings are elaborated below.

Table 2 Summary of the Findings

Categories	Sub-Categories	ADEC	Australia	UK	Georgia/USA	Oklahoma/USA	Kentucky/USA	Arkansas/USA
1.0 Rational	1.1 Significance	X	X	X	X	X	X	X
	1.2 Reflects the school/district's vison	X	X	X	X	X	X	X
2.0 Goals	2.1 Well-defined program objectives	X		X	X		X	X
3.0 Identification	3.1 Identification Procedures		X	X	X		X	X
	3.2 Multiple Criteria		X	X	X		X	X
4.0 Program and Curriculum	4.1 Grouping		X		X	X	X	X
	4.2 Acceleration		X		X	X	X	X

	4.3 Differentiation	X	X		X	X	X	X
5.0 Personnel	5.1 Qualification				X		X	X
	5.2 Professional Development	X		X	X	X	X	X
6.0 Program Management	6.1 Assessment		X	X	X	X	X	X
	6.2 Evaluation		X	X	X	X	X	X

4.1 Category 1: Rationale

All documents studies for this research exhibit a clear rational for developing the GT policies. A comprehensive justification was presented in the GT policy of Georgia/USA as well as an explicit statement declaration in the UK and Australia policies. While the UK policy reflected the Service Children's Education commitment, Georgia policy was linked to the State's law of Special Education Services.

4.2 Category 2: Goals

Although the Australian document included most of the policy elements, it lacks a clear identification of the policy goals. Yet, ADEC policy introduced a list of the intended objectives. The aims of the UK policy were derived from the Service's Children Education and were focused on fostering the development of the talented children in a stimulating learning environment and make use of the community. Oklahoma, Kentucky, and Arkansas policies presented their goals broadly but the Georgian policy did not show any.

4.3 Category 3: Identification

Although identification was mentioned as a procedure to select the gifted and talented children in both ADEC and Oklahoma policies, no details existed about the criteria of selecting the gifted and talented

children for the program. On the contrary, Australia, UK, Georgia, Kentucky, and Arkansas policies introduced a detailed description of the identification procedures showing the different criteria for selection ranging from a check list provided for teachers, parents and peers to the consideration of the national and the international test scores of the nominated children. The UK policy suggested the use of both quantitative and qualitative information gathered about the candidates from their teachers and parents. Georgia adopted its identification policy from the legislative and rule-making initiatives for the state in 1994 and 1995. In Kentucky's policy, details about the general intellectual and academic abilities of students are considered as key elements in the identification policy for the GT program. Further details are elaborated extensively in their published document.

4.4 Category 4: Program and Curriculum

Differentiation was defined clearly in ADEC GT policy. However, general differentiation classroom practices were listed apart from those specifically identified for GT children. Yet, acceleration was given as an option for the teachers' recommendation checklist in the document's annex with no reference of definition nor acceleration options in the body of the policy. Likewise, the UK policy, lacks information about programming and curriculum. The Australian policy incorporated some information about acceleration in the Gifted and Talented education flowchart in the document's appendix. Yet, no aspects were specified neither for grouping nor for differentiation. although it was declared that Gagné's Differentiated Model was used to present the educational and operational definitions in the policy. The four USA states' documents studied in this research demonstrated a detailed description of programming and curriculum. The influence of the NAGC guide was evident.

4.5 Category 5: Personnel

Teachers in a GT program are expected to work directly with the gifted learners which mandates certain qualifications that would enable them facilitate learning in the most suitable environment to cater for all students' needs. Yet, teachers cannot do that without proper preparation (Kyburg et al. 2007). ADEC policy did not mention the required qualification of the GT program teachers but recommended a training for those teachers. The UK policy suggested that the program management offer professional development opportunities for GT teachers. The same situation is spotted in Oklahoma's document. The Australian policy never mentioned information about the personnel training nor professional development. However, Georgia, Kentucky, and Oklahoma stated policies for staff qualifications and training requirements.

4.6 Category 6: Program Management

The importance of having the program's assessment and evaluation policy has been proven in the literature. A regular process of collecting and analyzing the data is referred to as assessment. While evaluation procedures are required to inform and update the policy. All policies used for this content analysis study included elements of assessment and evaluation except the one for ADEC. Policy review elements were comprised in the UK policy. A panel for program evaluation is mandated in Georgia's policy. Whereas regular and on-going review of the program is required in the Australian document before acknowledging students' progress.

5.0 Conclusions and Recommendations

Literature about Gifted and Talented education policies is quite coherent. The major findings of the study were evolved around the research questions. Global standards for stating a policy for gifted and

talented programs were explored and evident by reviewing a wide range of literature. Accordingly, the gap in the ADEC policy is identified. Therefore, the following are recommended:

1. The policy need to include operational definitions for a gifted and talented program.

2. Identification policies should be acknowledged taking into consideration different criteria that would serve the needs of all gifted learners.

3. Further details about programming options should be included in the policy including differentiated in-class activities in addition to the special programs that can be offered.

4. Teachers qualifications should be defined before being engaged in a GT program

5. Program management must commence program's assessment and evaluation to inform the policy and provide regular updates.

The research purpose is achieved and all research questions were answered. Nevertheless, further research about GT policy development is recommended.

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Inquiry into the Inclusion of Students with ASD in a Private School in the UAE: A Case Study

Hala Fakhry

The British University in Dubai

What If?

"What would happen if the autism gene was eliminated from the gene pool? You would have a bunch of people standing around in a cave, chatting and socializing and not getting anything done!" – Temple Grandin

Abstract

This is a case study that offers an in-depth investigation of the inclusion of students with Autism Spectrum Disorder (ASD) in a private school in the United Arab Emirates (UAE). It highlights the adaptations and modifications offered by the school for a successful implementation of inclusion of students with ASD. To collect data, I followed three methods: observation, interviews and document analysis. The findings of the study highlighted areas of strengths as well as areas of challenge in the process and revealed the need of schools in the UAE to direct more efforts for effective implementation of inclusion. The study concludes with research-based recommendations for future research and implementation.

Introduction

Under the auspices of His Highness Sheikh Khalifa Bin Zayed al Nahyan, President of the UAE and His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice President and Prime Minister of the United Arab Emirates (UAE), and Ruler of Dubai, all the government departments, institutions and bodies in Dubai are putting their utmost efforts towards establishing Dubai as a fully-inclusive disability-friendly city by the year 2020. Education is at the top of the priorities. The Ministry of Education (MOE) in the UAE promoted for inclusion in both governmental and private schools through implementing the Federal Law 29/2006, which endorsed the rights of students with Special Educational Needs (SEN) to inclusive educational opportunities. This was followed by the "School for All" initiative in 2010, which drew the detailed guidelines for the efficient inclusion of Students with disabilities in mainstream government schools of the UAE. In 2013, His Highness Sheikh Hamdan Bin Mohammad Bin Rashid Al Maktoum, Dubai Crown Prince and Chairman of the Dubai Executive Council, launched the "My community...a city for everyone" initiative through which he widely promoted and endorsed inclusion as a framework for Dubai. Inclusion of students with SEN was further stressed in the UAE Ministry of Education Strategy 2010-2020, which advocates the rights of students with SEN to be relevantly accommodated in regular educational settings.

This research study was inspired by the abovementioned efforts and initiatives towards inclusion. Through this study, I aimed at investigating the process of inclusion of students with Autism Spectrum Disorder (ASD) in mainstream schools in the UAE with focus on the provisions, adaptations and modifications offered by the schools to effectively cater to students with ASD in mainstream classrooms. I intended to explore the extent to which the inclusive framework endorsed by Dubai

institutions is effectively implemented with students with ASD in schools as well as to identify the challenging areas in this field.

The data was collected via three methods: semi-structured participatory observation in a private school in Dubai where students with ASD were included, analysis of students' documents and artifacts as well as semi-structured interviews conducted with stakeholders. The themes emerging from the data analysis answered the overarching main question of the research study:

- How are students with ASD included in a mainstream private school in the UAE?

To answer this research question, the following sub-questions will be addressed:

- What adaptations and modifications are evidenced within the school policies, practices and cultures to include students with ASD in a mainstream private school in the UAE?

- What challenges hinder the successful implementation of inclusion of students with ASD?

Literature Review

Overview

Autism cases are on the rise across the world, probably because of the development of the diagnosis dynamics across the years. According to Gallo (2010): "The number of the children (or teens, or adults) who have autism that goes undetected by well-meaning professionals who do not have the depth or breadth of knowledge or the experience necessary to appropriately identify the disorder remains elusive." It is documented that worldwide, in every 88 births, there is one child on the spectrum. The statistics revealed by the US Centers for Disease Control and Prevention show that 1 in every 68 American children is diagnosed with Autism. According to the US government statistics, the

prevalence rates in recent years have increased 10 to 17 percent annually. In a CNN report Mark Roithmayr, president of US-based Autism Speaks stated that Autism is becoming epidemic in the US. According to Sara Ahmed Baker, head of the community service unit, Dubai Autism Centre, the UAE appears to be on the same track, though no official figures are available. She stated: "Autism is definitely on the rise. There is more awareness of the condition and improved diagnosis and assessment techniques so more cases are coming to light" (as cited in Chaudhary, 2012).

Inclusion of Students with ASD in Mainstream Classrooms

As defined by Sapon-Shevin (1999, p.4): "Inclusion means we all belong. Inclusion means not having to fight for a chance to be part of a classroom or school community. Inclusion means that all children are accepted". Therefore, it is an earned right for all children to be well catered for in mainstream schools. Booth and Ainscow (2011) viewed it as the process of reducing barriers and mobilizing the resources for the best of the children with SEN. In the UNESCO Guidelines for Inclusion, it is stated that inclusion is "a dynamic approach of responding positively to pupil diversity and of seeing individual differences not as a problem, but as opportunities for enriching learning" (UNESCO, 2005, p.10)

Inclusion is a comprehensive process where interrelated factors work together for the good of the students. Booth & Ainscow (2011) depicted those factors as a triangle (Index for Inclusion), the base of which is creating an inclusive school culture and the two sides are the school policies and practices (see figure 1). Basically, the provisions and the interventions offered to students with ASD primarily fall under these three key principles: culture, policies and practices. Inclusion implies reducing exclusionary pressures (Booth & Ainscow, 2011). Those pressures include all the factors that hinder a student's full participation in the classroom, which results in his "exclusion", like: learning difficulties, behavioral challenges, environmental factors…etc.
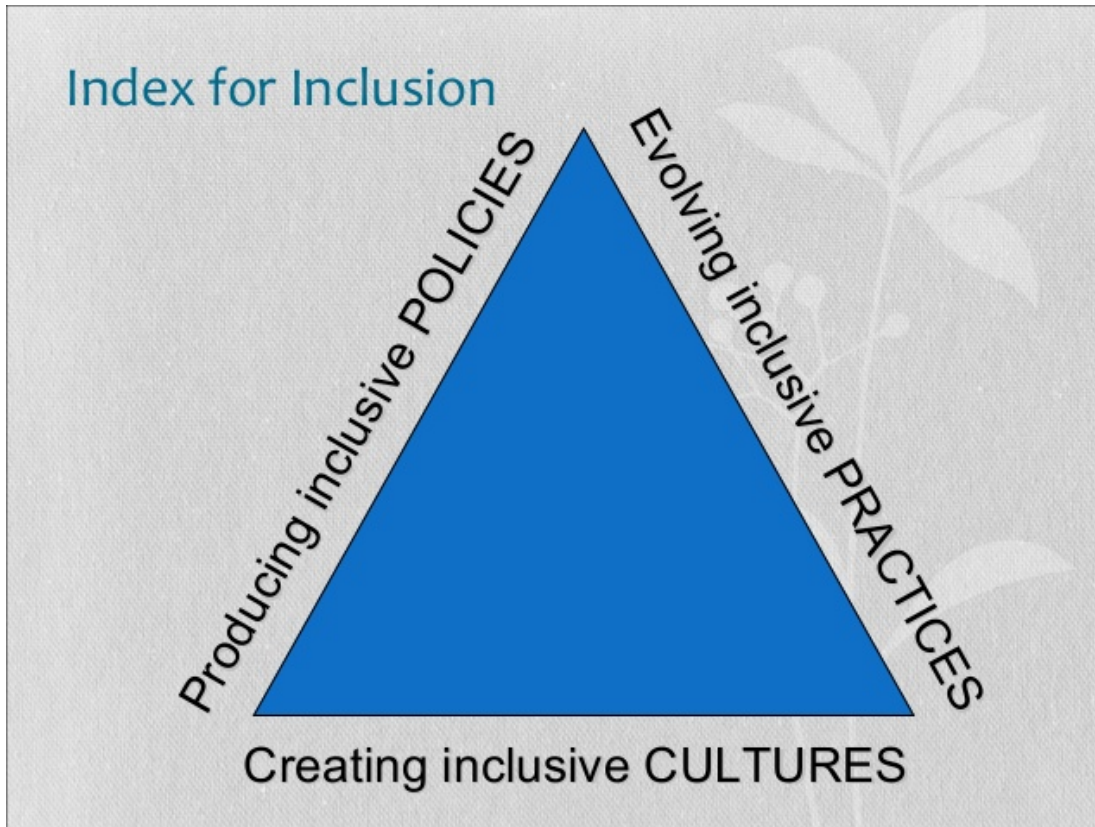
Figure (1)

In 1979, the UAE started identifying the necessity of providing inclusive educational services for students with SEN. The term widely included cognitive, sensory, physical and behavioral impairments that represented barriers to education (School for All, 2010). In 2006, the services provided for students with SEN expanded to reach 9th grade. However, up till that year, inclusion was narrowly implemented, as it was only provided for students with visual, hearing and physical disabilities. Students with cognitive and behavioral disorders were only offered center-based educational programs. This included students on the spectrum in addition to students with Intellectual disorders (previously referred to as mentally retarded). The year 2006 represents a turning point in the history of Inclusion in the UAE, with the introduction of the Federal Law 29/2006, Regarding the Rights of Persons With Special Needs. This law dictated the inclusion of all students with SEN in

public and private schools of the UAE, whatever their disability is, with the assurance that they are provided equal educational

In 2010, the Ministry of Education (MOE) in the UAE issued the "School for All" initiative, which advocates the rights of students with SEN and promotes the culture of inclusion in mainstream public schools in the UAE. The Philosophy of the initiative stated that:

> The provision of support and equal access to educational programs and services for students with special needs and gifts and talents are the priorities of the educational policy in the United Arab Emirates and reflect the philosophy of inclusive education (School for All, 2010, p.14).

In 2014, His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE, in his capacity as the Ruler of Dubai, issued Law No. (2) of 2014 to protect the rights of people with disabilities in Dubai. The law promoted cooperation among the Emirate's institutions and bodies to endorse the rights of people with special needs, with focus on students with SEN and their rights to fulfilling educational opportunities. Inclusion of students with SEN is further stressed in the UAE future educational plans. The UAE Ministry of Education Strategy 2010-2020 asserts the equal opportunities of all students of the UAE and advocates the support of students with SEN by integrating them in the regular educational settings.

Methodology

I chose to conduct this study within a descriptive interpretive qualitative framework. According to Merriam (2009), the focus of the qualitative research is primarily understanding and interpreting a process with an end product that is richly descriptive. Aiming at providing an in-depth description and analysis of the studied subject, I chose to conduct this research as a case study. Case studies allow the

researcher to get as close to the subject as possible through direct observation in natural settings, which is not the case with experiments and surveys (Bromley, 1986). Yin (2008) suggested that the case study is the most suitable form to answer the "how" and "why" questions about a subject.

To ensure the trustworthiness of the findings of this study, I adopted three methods of data collection: interviews, observation and document analysis. This multiplicity of methods allowed for data triangulation. I chose to conduct qualitative semi-structured observations in different settings in LIS (Luxury International School), a private international K-12 mainstream school in Dubai that applies the IB (International Baccalaureate) curriculum. Observation allowed me to obtain a first-hand account of the subject rather than relying on someone else's interpretation (Merriam, 2009). Being a participant observer, I was able to get immersed in the site, get close-up view of the participant and interact with them, with the aim of collecting data that allow a deep and true understanding of the subject.

I had the opportunity to observe a Kindergarten two student called M. This was an eight-year old high-functioning child on the spectrum. I shadowed him for an entire week with the aim of capturing a true sharp image of the inclusive provisions offered to him in the school. I observed him in seven different settings: regular classroom, language class, with the speech therapist, music session, the swimming pool, the playground as well as on stage during the weekly school assembly. Besides, I had the opportunity to interview: the school principal, teacher A (a KG2 homeroom teacher), the SENCO (Special Education Needs Coordinator) and the speech therapist. The flexibility the semi-structured interviews allowed, not only facilitated my exploration of the topic, but also ensured the validity of the answers to the research question and freed the way for the natural and smooth emergence of themes.

This study was limited by four main challenges on the level of data collection. Firstly, the transparency of the interviewees was not guaranteed, especially with the school personnel who tried to hide the negative aspects for the sake of beautifying the school's image. Secondly, the school administrators did not allow me sufficient accessibility to all the main classrooms. Thirdly, it was very hard to approach more than one school for this study, given the limited time frame within which the study was to be concluded. Fourthly, accessibility to schools was a great challenge. Despite the fact that a big number of schools were repeatedly approached through official letters and visits, the majority of them either did not reply or declined my request on the pretext that my visit would violate the confidentiality codes of the school. To ensure the trustworthiness of my study, I tried to make up for these limitations by making the best use of the time allowed for me in the school as well as keeping a vigilant eye on every piece of data I came across.

Last but not least, the AUD's codes of ethics and confidentiality guided this study. Besides, to ensure the trustworthiness of the research study and the reliability of the findings, I made sure to identify any existent biases and minimize them.

Findings

The research in LIS pictures a number of truths about the process of inclusion of students with ASD in the school. Firstly, the admission process in the school is conditioned by the school's "readiness" for supporting the student; which resulted in the school declining so many students. Besides, most of the teachers of the school were not qualified for special education; hence, many of them refused having the students with ASD in their classes. The school's effort to make up for the teacher's lack of knowledge and experience was through a single session conducted by the special education department, led by the SENCO, at the beginning of every academic year. Besides, they

offered the teachers "optional" courses on SEN during the frequent professional development.

All the interviewees confirmed that the biggest challenge in LIS is not with spotting a child with ASD, but rather with getting the parents to realize their child's difficulty. The cultural fear of the stigma associated with the disability is the main reason why most of the parents' deny their children's special needs, which makes it hard for the student to receive the diagnosis and the appropriate interventions. The interviews with the parents revealed that the special accommodation provided to support their children represented a heavy financial burden on their shoulders, having to pay extra fees for every single intervention.

Having the chance to accompany M for three full school days in several settings, it was so clear that in many instances he was excluded from the class activities and was not adequately supported by many teachers. Attending the music and swimming lessons reflected the lack of knowledge of both teachers about the nature of ASD and the needs of the students. Furthermore, I came to know that he was not fully included in the mainstream classroom; though high functioning, student M was still sometimes pulled out of the class for interventions.

The data revealed that the school personnel do not consider the IEP a mandatory process, nor did they identify it as a "legal document" in a private school in the UAE. Besides, there was inconsistency in the IEP process, the team members and the periodical meetings. The follow up process was all based on individual endeavors, checklists and forms that every teacher carries differently in her class. The school administration considered the tracking of the IEP goals the responsibility of the classroom teacher alone, while their role is only to make sure that IEP is effectively communicated to all the adults that interact with that student because this is what the KHDA (Knowledge and Human Development Authority) has criticized them for in previous

inspections.

Almost all the school personnel asserted that there were not any modifications done to the physical setting of the school to accommodate the needs of the students with ASD. There was a general belief that the students suffer in the regular school setting. The speech therapist stated, *"Within the classroom, it is normal that you bring the cellphone in… but for a child with ASD who has auditory hypersensitivity, something as little as this is like nails on a chalkboard!"* Yet, still no accommodations were provided.

About modifying the school policies and the practices, the SENCO strictly asserted, *"We cannot change the policies because it is a mainstream school. It has fixed policies."* Though the speech therapist confirmed that some school practices can be agitating to students with ASD, she still insisted that they cannot be adapted. She explained that a practice like the fire drills for example could not be adapted or modified and that it is better for students with heightened sensory issues to go to special education schools! She added that she generally thinks that such a big school, with huge buildings and a lot of transitions between classes, is not a good setting for students with ASD. In contradiction, teacher A confirmed that some school policies were modified for student M like the dismissal time and attending the assemblies in the auditorium. Generally, there appeared to be remarkable "individual" efforts on the side of teacher A to facilitate the inclusion of M and to stretch his social interaction with his peers.

Being an inclusive environment, LIS had a special education department, led by the SENCO, to support all the students with SEN. The SENCO confirmed that her main job is to *"academically support slow-learning students through pullout sessions"*, in addition to writing the IEP. She stressed that she is not responsible for the any therapeutic or behavioral interventions. Besides, the school was

equipped with a resource room, which was only for the use of the SENCO and her two assistants, where they do small group pullout sessions depending on the grade level and the needs of the students.

Almost in all the cases, the admission of the students with ASD to the school was conditioned by the presence of a shadow teacher. It was clear from observing student M and his shadow teacher that the latter did very little contribution to facilitate M's inclusion, learning and social interaction; on the contrary, she represented another barrier in the way of his inclusion by continuously and harshly controlling him. I knew from the SENCO that the school does not require any certification when hiring shadow teachers and that the most importance criterion is the experience.

Though there was a general belief in the importance of integrating assistive technology to facilitate the inclusion if students with ASD, there was almost a complete absence of it in LIS. The SENCO confirmed, *"… this is one area which is still not fully explored."* However, teacher A disagreed with some tools, like noise-cancelling earphones, because students become too reliant on them. *"I think they need to learn how to handle noise not how to cancel it!"* she stressed.

Accessing the school curriculum is usually one the biggest challenges teachers face when including students with ASD in mainstream classrooms. Adopting the IB curriculum in LIS was a double-edged weapon. As confirmed by teacher A, it is based on units of inquiry, which students with ASD can rarely access. However, she believed that the biggest strength of the IB is that it is based on differentiation of instruction and activities. It views the curriculum as a continuum and every student stands somewhere on it based on his readiness. She highlighted that this facilities the learning of the students with ASD and allows for a lot of modifications and adaptations. Yet, the observation revealed that not all the teachers in the school differentiated the instruction for the students with ASD, neither where they aware of the modifications done to the curriculum. Besides, it was clear that there was not consistent systematic process followed for doing adaptions of the curriculum. It was left to every

teacher's individual endeavors.

Reviewing the LIS's mission and vision, I did not find any reference to inclusion of students with SEN or to the school's belief in their rights to be in mainstream education. Besides, catering for students with SEN, facilitating their learning and offering them the necessary provisions are not among the aims issued by the school. However, there were phrases and sentences that mentioned fostering caring, like: *"caring learners"* and *"we aim to help our students become caring and balanced in their outlook"*. The school principal and teacher A explained that, though inclusion is *"very limited in Dubai",* LIS is inclusive because it is an IB school. However, laughing at M in the auditorium and in class and not approaching him for playing revealed that students in the school were not educated about accepting the students with ASD. When asked about the ways to develop a culture of acceptance, teacher A and the principal both asserted that it solely happens by modeling.

When asking about the strategies applied for behavior management, teacher A stated that due to her background knowledge and experience in ABA (Applied Behavior Analysis) therapy, she usually applies it with students with ASD in her class. She sometimes relies on ABA strategies to help her students academically; like using prompts and positive reinforcements. Yet, she stressed that not all the teachers who have students with ASD in their classrooms are ABA trained, nor are the shadow teachers.

Discussion

This study explored the inclusion of students with ASD in a private school in the UAE. It researched the provisions, adaptations and modifications applied to school policies, practices and culture to establish an inclusive environment. This chapter aims at discussing and interpreting the

findings of the research as well as relating them to the relevant literature. It is organized according to the themes that emerged from the data, previously discussed in the findings.

Firstly, the process of inclusion in the school is inadequate. The absence of any reference to students with SEN or inclusion in the school mission, vision and aims reflected a sense of obligation to inclusion rather than belief in it. Besides, having criteria for the admission of students with ASD in LIS reflected a lack of knowledge about the true meaning of inclusion. It is stipulated in the UAE Federal Law 29/2006 regarding the Rights of People with Special Needs: "Special needs do not constitute in themselves an impediment in seeking affiliation or enrollment or admission to any educational institution, whether public or private" (article 12). Hence, it is the right for all students, whatever their needs, to be part of the mainstream classroom and it is the duty of every school to provide the necessary support.

Moreover, the school administration conditioned the admission of students with ASD with the school's readiness. This appears to be an illusive criterion because schools are all expected to put the utmost efforts and to offer those students all the possible provisions according to every school's potentials and resources. Besides, there is lack of clarity about the real concept of inclusion, which implies the possibility of facilitating the students' difficulties within the school campus whatever its level of severity was.

The importance of getting a diagnosis for a student with ASD was clearly highlighted by the assertions of teacher A and the speech therapist, who both confirmed the presence of some students with ASD in LIS who did not have diagnosis. They explained that it is hard to develop an IEP without

a diagnosis because it would then be hard to determine the specific difficulties of the student and his needs. This shed light on the importance of raising the parents' awareness and having them accept their children's special needs because their denial means that the student will not have an IEP and will not receive interventions.

M's two IEPs covered academic objectives and speech and language objectives. Yet, there was not any reference to behavioral interventions offered to facilitate his inclusion. This was a clear separation of the two main aspects of the educational process: the academic and the behavioral aspects, which are essentially intertwined. If a student's academic needs are not artfully met, negative behavior is a sure result.

Reviewing the contents of the IEP stated by McCausland's (2005), it was clear that M's IEP did not cover some aspects like adaptations of assessment methods, transitions requirements, description of the educational setting, IEP team names, roles and responsibilities, IEP meetings, student's need for assistive technology and the necessary behavioral interventions. This reflected that the IEP in LIS was neither comprehensive nor transparent. Besides, M's IEP was not clear on the adaptations and modifications done to the curriculum, policies and practices. It briefly stated the goals in each field without explaining the strategies or accommodations carried on in each. Besides, the lack of system, the lack of teachers' knowledge and the incompetent performance of the IEP were major challenges in the IEP process in the school; in addition to the lack of a unified procedural orderly system of IEP goal tracking.

Following the writing of the IEP, the level of restrictiveness of the learning environment is determined. This appeared to be teacher A's big dream. *"That's my big thing"*, she strongly confirmed. However, it was clear that it still represented a challenge for which she had to struggle, as she confirmed that the other school personnel were against increasing the push-ins for M though he

was high functioning.

It is worth noting that the lack of effective communication and collaboration among the school personnel represented a major challenge in the way of inclusion. The implementation of successful inclusion is primarily a comprehensive process that is based on the collaboration of all stakeholders. The goals of inclusion are hard to attain through the individual endeavors of one member of the team. Besides, the knowledge and efforts of one school personnel can be unrewarding if not reinforced by the supportive mindset and systematic regulations of the entire school.

The rejection of the idea of modifying the school physical setting emphasized the lack of knowledge about the true meaning of inclusion. Besides, the differentiation between mainstream schools and special school reflected a discriminatory stance and a lack of knowledge about the implications and requirements of inclusion. According to the United Nations Convention against Discrimination in Education (1960), discrimination is the "exclusion" of any learner from regular education systems. This implies that inclusion in mainstream classrooms is a right for all students with SEN, while facilitating all their difficulties. Hence, if a country adopts inclusion, the norm is that schools be modified to be inclusive; and the norm is that special schools diminish in number. Thus, the understanding of inclusion in LIS needed to be revisited.

However, the observation and the interviews revealed that the IB curriculum was a good fit for students with ASD. Viewing the curriculum as a continuum was an advantage as it allows teachers to artfully manipulate the content and the form for the benefit of the students. Moreover, its differentiated nature eliminated the need for curriculum modification because every student is working at a different point on the continuum. However, the challenge was that differentiation was limitedly applied with students with ASD by individual teachers and not as a school-wide system. Though teacher A was applying it, other teachers like the language, music and swimming teachers did not show knowledge of

differentiation in their practices with M.

The policies in LIS were flexibly modified for the benefit of the students with ASD, which reflected the school's care on providing them with a comfortable learning environment. This was clear in M's early dismissal on specific days as well as the freedom for movement allowed to him in the campus. Yet, there appeared to be lack of knowledge on the side of many school personnel about the provisions offered concerning the policies of the school. The claim of the SENCO and the speech therapist that the school policies were "fixed" and "written" not only reflected a lack of knowledge about the requirements of inclusion but also about the flexibility of the school system. This lack of knowledge was further emphasized by the speech therapist's unawareness of the modified schedule offered to M, which teacher A confirmed. This highlighted a lack of communication among school personnel as well as a lack of clarity on the school-wide system.

The interviews revealed that the school personnel had little knowledge about the other structural frameworks that integrated the principles of ABA and allowed its application in educational contexts, like: TEACCH, LEAP and TRIAD. Though the review of literature showed that they were scientifically proven and applied worldwide, most of the interviewees rejected them on the pretext that ABA was the only tested and scientifically proven therapy. This rejection was not based on scientific evidence and reflected their lack of knowledge. Besides, teacher A's contradictory opinions about ABA reflected her dissatisfaction with it, yet her lack of knowledge of a substitute for it.

The school-wide culture in LIS constituted an environmental barrier in the way of M's inclusion, due to the lack of acceptance and the reliance on ly on modeling to build it. According to the UN Convention on Rights of Persons with Disabilities (CRPD), the disability results form the interaction between the person with impairment and the environmental barriers that hinder his participation in the society (Annex 1).

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There appeared to be a number of challenges that impede the implementation of successful inclusion in LIS. First, the lack of legal accountability appeared to be one of the key reasons why some school personnel in LIS were not implementing effective inclusion. It appeared that teachers were not clear on the true legal status of the IEP and if it were a legal document in the UAE. This explained the inconsistency and the lack of order in the whole process. It also explained the presence of students with ASD in the school who did not have IEPs and for whom teachers were not held responsible. Besides, it appeared that some of the school personnel did not have the ethical commitment to support the students in the absence of the legal commitment. On another level, the lack of accountability appeared to be the reason for the lack of modifications in the school setting and practices.

Moreover, the observation and the interviews revealed two main challenges in the special education department in LIS: the absence of some professions and the lack of clarity of many school personnel on their main roles and responsibilities. The absence of many professions in the special education department was explained by the SENCO who confirmed that the school's potentials were "limited", in comparison to the big number of students. The word "limited" was too vague and reflected lack of transparency about the real reason why the school did not have a psychologist, a specialist of assistive technology, a specialist of emotional and behavioral disorders, or a specialist of occupational therapy. The school was so luxurious with rich financial and spatial resources that allowed for hiring them. This emphasized the school's recognition of inclusion as a supplementary unofficially-handled service rather than a legal right of students. A result of that was the referral to therapists outside the school, which the SENCO asserted she usually did. In fact, this referral implied a declaration by the school that these interventions were indispensible and that their absence was a drawback in the process of inclusion. Another result of this absence of profession was that one person, who is the SENCO, occupied many posts like special education instructor, special education teacher in

resource room, specialist of learning difficulties and head of the special education department. This led to a lack of focus, and consequently inefficient performance.

In LIS, some school personnel were not clear on their roles and responsibilities in inclusion, which in turn affected the success of the process. The SENCO confirmed that her only role was to support *"academically-slow learners"* in pullout sessions in her office. She overlooked her administrative role as a manager of the whole process who is expected to put the utmost efforts to offer the necessary provisions for included students. Besides, the principal asserted that the role of the school administration in inclusion was only to *"… make sure that the IEP is effectively communicated to all the adults that interact with the student."* This reflected his lack of knowledge about his role, as an administrator, in the process of inclusion. This lack of knowledge about the roles reflected drawbacks in the criteria of hiring the school personnel as well as the process of orienting them to their jobs. It also explained the lack of order and the inconsistency on the different levels of the process of inclusion.

Besides, the incompetent performance of the shadow TA in many of the observed situations revealed her lack of knowledge on her main roles and responsibilities. The inadequate process and criteria of hiring the shadow TA, stated by the SENCO, accounted for her ineffectual performance in all these incidents. The fact that the degree in special education was not a necessary criterion for hiring her and that experience or courses were sufficient implied the lack of the academic background necessary for addressing the students' special needs. Besides, having the SENCO determine the shadow's readiness for this job reflected that the process of hiring was defective.

It was clear that the presence of a qualified teacher was a pillar in the success of the process. Being a qualified teacher, she managed to skillfully manipulate the available school potentials for the benefit of the student. However, the principal's assertion that only one teacher in every stage was

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qualified for special education triggered questions about the effectiveness of the inclusion of students with ASD in classes where teachers might not be as qualified. This highlighted a drawback in the criteria according to which teachers were hired in the school. Satisfactory knowledge about special education is expected to be among the criteria of hiring school personnel. Hence, the school is expected to direct more efforts to developing the teachers' knowledge about special education as well as effectively investing in them by offering special education courses that are compulsory parts of the professional development.

The heavy financial burden on the shoulders of the parents of students with ASD in LIS represented another challenge in the way of inclusion. According to teacher A, parents pay extra fees for every extra intervention necessary for their children. Besides, they pay the salary of the shadow TA. It is stipulated in the UAE Federal Law 29/2006 regarding the Rights of People with Special Needs that inclusion and the necessary interventions associated with it are *"rights"* for students with SEN. The word "right" implies that they should get them for granted, not pay for them. Besides, parents of students with SEN are to be supported, not committed to more expenses.

Another area of challenge in LIS was the integration of assistive technology in the learning process of students with ASD. Though the SENCO confirmed the effectiveness of assistive technology, she vaguely stated that this area was not yet *"fully explored."* This was incongruous with a lot of studies that confirmed the effectiveness of assistive technology in facilitating the life of students with ASD in an inclusive school. McCausland (2005) noted that the assistive technology necessary for student with SEN is one of the main components of the IEP. Besides, Mondak (2000) confirmed that technology can provide children with developmental challenges with opportunities to more fully participate in group activities and be more independent in their daily lives. According to Alborno (2013), the MOE in the UAE conducts a yearly survey to determine the assistive technology needed

for governmental schools within a limited budget. This holds the private schools even more responsible bearing in mind their rich financial resources and the expensive fees they request.

Conclusion

The UAE in general and Dubai in particular have taken evident steps towards the inclusion of students with ASD in mainstream schools. Numerous Laws and initiatives have been issued advocating their rights and promoting their acceptance. Inspired by these steps, I set out to comprehensively investigate this field and highlight the provisions offered to them in a private school in the UAE. The study revealed several areas of challenges in the understanding and the implementation. Efforts are required to be directed to applying the existing laws, legalizing the stages of the process, educating educators, raising awareness and building a countrywide culture that supports the right of students with ASD to appropriate learning opportunities. The legal support for researchers and facilitating their access to public and private schools are essential for further studies on this topic. Last but not least, educators are motivated to center their focus on the strengths, rather than the weaknesses of a societal group that is genuinely promising. Inspiring enough, Temple Grandin summed it up: "What would happen if the autism gene was eliminated from the gene pool? You would have a bunch of people standing around in a cave, chatting and socializing and not getting anything done!"

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Assessment in the Context of Teaching: Investigating Teachers' Perceptions of Assessment Practices that Enhance the Learning Process

Marwa Eltanahy
The British University in Dubai

Abstract

Educational goals and learning outcomes can be linked successfully through integrating appropriate assessment practices to align with the teaching and learning targets. This study seeks to explore teachers' perceptions about assessment types and to investigate the extent to which teachers use assessment results to seek improvement of education. Thus, Mixed methods approach was conducted through collecting both quantitative and qualitative data by using a questionnaire and interviews. Results found that although teachers have acquired clear knowledge about the meaning and types of assessment, they still focus more in written quizzes as their main formative assessment and designing final exams as their summative assessment. Subsequently, the assessment data are mainly used to assign students' grades. This study suggested that evidence-based assessment research should seriously be used to take decisions about assessment strategies and the follow up on its sequences to reduce the gap between teachers' beliefs and their actual practices.

There has been a continuous emphasis on integrating assessment practices in the whole process of teaching and learning in order to bridge the gap between educational goals and learning outcomes. Assessment is an endemic and ongoing process in education, where a consistent dialogue between teachers and their students is consistently involved (Boyle & Charles, 2009). Hence, instructors recently become more cognizant of variety of assessment types to follow up students' progress than ever before. Planning for assessment should be parallel to planning for teaching instructions and learning activities as well (Wiggins & McTighe, 2005). Therefore, current developments in education suggested that research about educational assessment is required to build logical evidences to improve the learning process that meet The Assessment Reform Group views rather than merely measuring academic outcomes (Mansell, James, & ARG, 2009). This suggestion highlights the rational of the current study.

Accordingly, in order to conclude an overall judgement of the performance of any of Dubai schools, assessment is assigned as the third performance standard out of six in the UAE school inspection framework that reflect the key domains of the quality education (KHDA, 2015). This essential matrix is structured based on the consistent research into school effectiveness and underpinned by group of educational experts who known as performance indicators.

The purpose of this study is to emphasize the valuable role of different forms of assessment to impact the educational process. While its objectives are to explore teachers' perceptions about different assessment types and to investigate the extent to which teachers use assessment results to seek continuous improvement of education offered at their school.

The study is conducted to answer the following main questions:

- What are teachers' perceptions of assessment practices in the context of teaching?

- To what extent do teachers use assessment information to improve the learning process?

Statement of the Problem

Assessment is considered as an integral component of the learning process in order to provide students with reliable opportunities to enhance the acquisition of both knowledge and learning skills (Ashford-Rowe, Herrington & Brown, 2013). In addition, Curriculum, teaching strategies, learning activities, students' grades and their placement are all influenced by assessment practices (Daugherty, 2007). Therefore, Knowledge and Human Development Authority KHDA has reported the following main assessment elements in its school inspection framework 2015-2016 for all Dubai schools to be aware of them.

- Internal assessment processes

- External, national and international benchmarking

- Analysis of assessment data to monitor students' progress

- Use of assessment information to influence teaching, the curriculum and students' progress

- Teachers' knowledge of, and support for, students' learning

It is widely acknowledged that the impact of teaching instruction and assessment on learning is strongly affected by teachers' perceptions of both the curriculum and assessment requirement (Sambell & McDowell, 1998) Although assessments types has become a very popular concern in Dubai schools because of the regular visits of the KHDA inspection team each academic year, there is no enough literature about assessment practices to address this critical topic in education and to enhance its practices. Attending to this limitation, it is crucial for educational organizations to explore teachers' perceptions about these features of assessment in the light of their actual practices before being inspected. Moreover, investigating the extent to which schools use their assessment findings is

necessary to launch them in the direction of producing the most possible academic achievement.

Literature review

Recently, learners are encouraged to develop a modern set of learning skills and competences that allow them to fulfil the workplace requirement. Teachers are the direct tools of the curriculum development that play a pivotal role to equip students with the necessary abilities and attitudes to contribute to the society (Eisner, 2002). Assessment literature recorded prevalent misalignment between teachers' beliefs and their classroom assessment practices (Chew & Lee, 2013). Hence, teachers can transmit values to the adaptation of both curriculum and assessment in the context of their teaching and learning experience (Swaffield, 2008). It is beneficial to investigate their perceptions to minimize this belief-practice gap, as they can impact the assessment process in the classroom (Öz, 2014).

Types of assessment

Students should be totally engaged into assessment practices that reflect variety of learning opportunities where cognitive domains of higher order thinking skills are enhanced beyond comprehension and recall domains (Enger & Yager, 2009). Large school assessments are designed for many purposes in order to achieve the main goal of education. The way in which teachers use to collect information about students' knowledge and skills can range from informal to formal methods where these results can be used in either summative or formative ways and in a combination between them. Assessment educators of instructional reform categorized its practices into two main forms, which are assessment for learning and assessment of learning (Stiggins, 2008). The following figure 1 shows

different types of assessment dimensions under each category, based on the purpose of data collected from these practices.
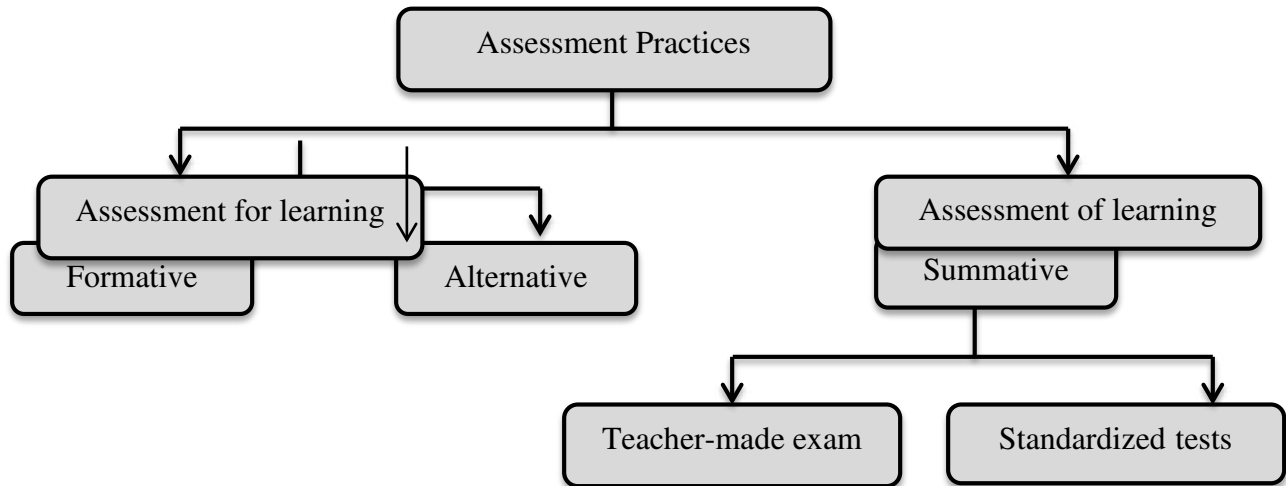
Figure 8: Types of assessment practices in education

Assessment for learning

This category of assessment represents the ongoing process where information gathered is used to improve the quality of learning as well as teaching strategies that influence students' outcomes in particular and the educational development in general. Recently, one of the most recognized types of assessment is the formative assessment (FA) that demonstrates how learners are progressing through highlighting their strengths and weaknesses in order to narrow the gap between students' actual learning levels and the targeted levels (QCDA, 2009). Moreover, the main priority of assessment is to serve the learning purposes not accountability purposes (Black, 2004). Research suggested that integrating this pedagogical approach in learning practices has the ability to develop students' metacognition and launch them in the direction of autonomous learning (Christopher, King, Youyi & Don, 2012).

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Generally, teachers who plan corrective instructions aligned with authentic assessment are able to create useful learning chances for their students to demonstrate success (Guskey, 2003). The assessment for learning strategy should be more consistent and systematic in all educational institutes to support the need of each pupil and motivate him to become an independent learner. While teachers should be equipped to fully understand the principles and requirement for progression and proficiently employ assessment information in their forward plan (Terry, 2015).

In spite of all of the positive promises recorded in the literature regarding learning improvement context, implementing assessment for learning types has many barriers that should be put right first such as class size, time management and lack of knowledge of authentic assessment practices (Christopher et al., 2012). It has been noted that teachers should be trained through professional development programs that focus on types of assessment practices and should be inspected for better implementation to develop their assessment capacity (Chew & Lee, 2013). Moreover, it is crucial for educational organizations to increase teachers' awareness about assessment that should not be handled in isolation, but should be integrated with learning activities consistently. Enger & Yager (2009) clarified that there is a variety of assessment formats that can be applied during teaching instruction, which fall into FA category. The following figure 2 shows the purpose of FA as a series of planned process in the classroom.
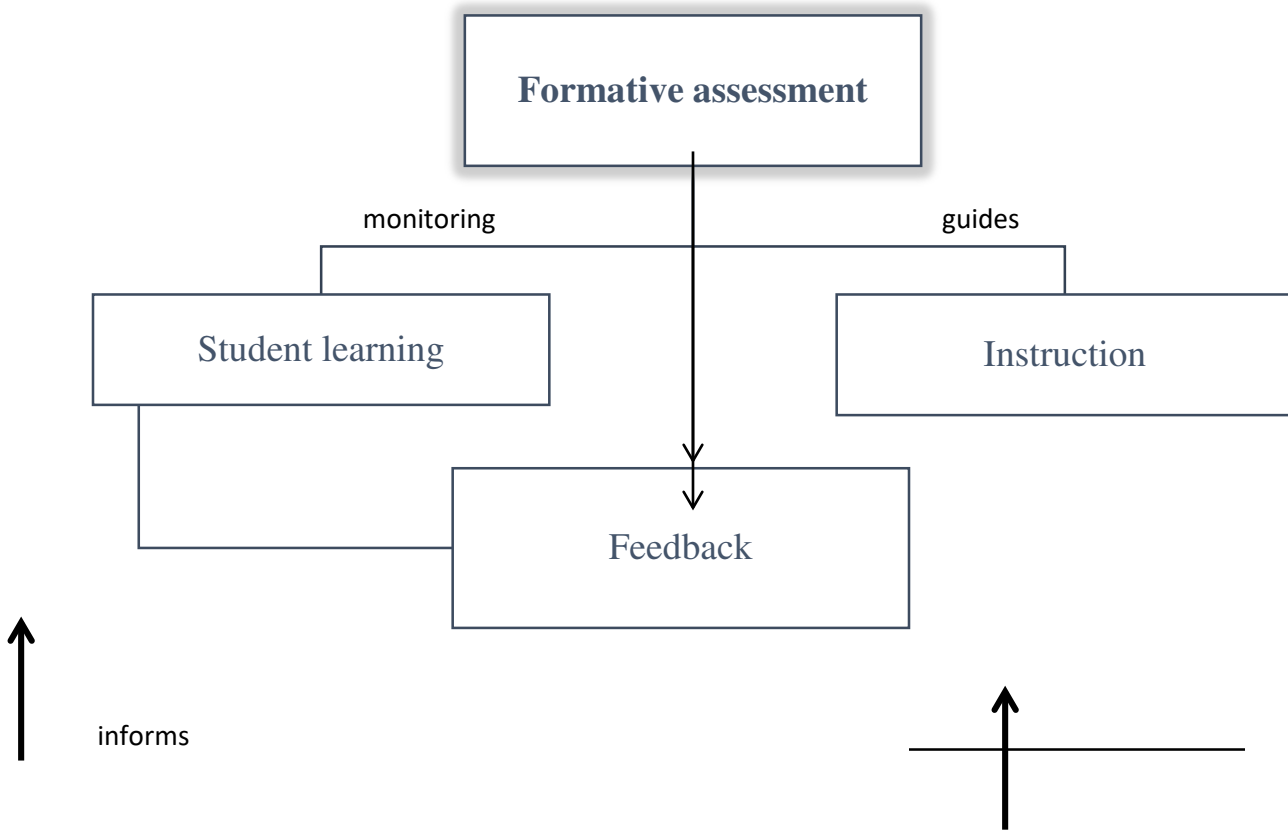
Figure 9: The purpose of formative assessment in education

(Enger & Yager, 2009)

Research suggested that FA is highly interactive process and multidimensional that effectively serves multiple aspects of both instruction and learning by providing feedback to adapt teaching and learning (Herman, Osmundon, Ayala, Schneider, & Timms, 2006). Furthermore, a general consensus on the literature indicates providing supportive, manageable and well-intentioned feedback that focuses on students' work is powerful techniques that affect their self-efficacy (Brookhart, 2008). Therefore, it should also be understandable and given to students immediately after work submission in order to

use it for improvement (Bayerlein, 2014). It has been clearly noted that tests are considered as elements in the FA process that consists of series of actions and many other components. However, literature of assessment mentioned that many of school inspectors observed learners in different grades spend substantial time being examined than being taught (Acongio & Doran, 1993). Therefore, there is a new trend in educational assessment that encourages teachers to apply constructivist perspective-based assessment that aims to utilize process-oriented alternative assessment in coordination with product-oriented evaluation instead of just grading students in final exams (Black, Harrison, Hodgen, Marshall, & Serret, 2010). There has been different formats of this assessment that target a wide range of students' skills and provide reasonable evidences to evaluate their performance and the whole learning process as well (Williams, 2014).

Many options of alternative assessment are mentioned in the literature such as continuous observation to students' interaction, interview students to investigate their perceptions and their needs, practice self-assessment techniques to enhance independent learning, encourage hands on activities to produce projects, design concept mapping and students' portfolios are also evidences that learning is occurring. These assessment options can effectively monitor the intellectual development of students over the academic year (Frank & Barzilai, 2004). Commonly, teachers look at these options as teaching or learning activities and rarely use their data for assessment purposes. As a result, assessment for learning is mainly not emphasized by those who believe that testing is the only successful method of assessment, which indicates that teachers cannot understand most of their students' learning potential and the difficulties they experience in the learning journey (Susuwele-Banda, 2005).

Alternative assessments are generally used in place of the traditional paper-pencil tests and they are criterion-referenced rather being norm-referenced. In addition, Petre (2014) asserted that learning

information of high quality could be delivered through alternative assessment, which also raise students' motivation to achieve more learning targets. On the other hand, some weaknesses of implementing alternative assessments were recorded in the literature. It is quite difficult for teachers to achieve a consist interpretations of all the data collected from these types as it is time consuming for both teachers who are usually overwhelmed and administrations who are responsible to choose a professional team to achieve this mission collaboratively (Champagne & Newell, 1992).

Assessment of learning

Meanwhile, in spite of the embracing of assessment for learning strategy in documenting students' work as an indication of the learning process, summative use of assessment remains at the top priorities of the international educational policies (Pollard & Triggs, 2000). Assessment of learning refers to collecting evidences to judge the quality of education in the light of learning outcomes and students' achievement (Harlen, 2007). School internal tests made by teachers are important to draw references about students' learning (DiDonato-Barnes, Fives & Krause, 2013). Such summative evaluations often carried out at the end of teaching and learning processes to quantify results about school performance and students' achievement (Long, Wood, Littleton, Passenger & Sheehy, 2010). Considerably, constructing summative assessment (SA) should also be aligned with the instruction and incorporate the intended curriculum. This meaningful requirement is essential for critiquing any large-scale assessment (Orlich, Harder, Callahan, Trevisan, Brown, & Miller, 2013).

Comparing school assessment judgment with the main standards used in international standardized tests is more professional for seeking more validity. There has been a great emphasis on modifying the curriculum to meet students' learning needs based on SA results. Thus, considerable amount of official support indicates the interaction between assessment, curriculum and teaching instructions, which form an educational triangle (James & Pedder, 2006). Basically, these practices are also called high-stakes

assessment because great effort is required to effectively achieve them and overcome its pressure (Long et al., 2013). Test development companies extensively employ the standardization process of exams based on psychometric models to be highly structured and easily used to compare results of assessment internationally (Enger & Yager, 2009).

Educational reform in UAE considers results of international standardized assessments such as TIMSS and PISA as the driving force and the initial benchmarks that aim to judge UAE learning quality for forward modifications (KHDA, 2014). Consequently, one of Dubai learning targets that was articulated in the UAE National Agenda is "By 2021, the UAE will be among the 15 highest performing countries in TIMSS" (KHDA, 2014). The following figure 3 illustrates the purpose of the forms of SA practices in education.
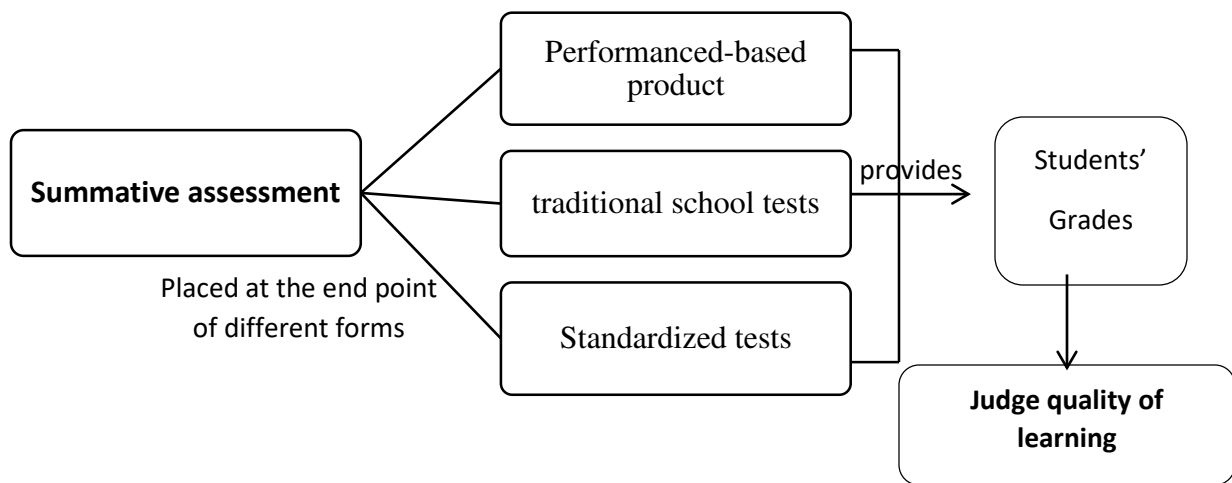
Figure 3: The purpose of different forms of summative assessment practices in education

Although it is difficult to expect that any of these limited exams can give a realistic assessment about students' performance across the whole curriculum of any core discipline, one of the noticeable effects of standardized exams is the "curriculum backwash" (Long et al., 2013, p. 55) whereby content of international tests is used to dominate what is actually taught. Ironically, Doig (2006) argued that

teachers rarely use SA information to consciously evaluate the impact of their teaching practices. However, students judge their competences in the light of their results in the formal assessments. Unfortunately, teachers ignore the essential combination of FA and SA and intentionally just focus on test content and seriously train their students to pass the required exams (Broadfoot & Pollard, 2000). Historical literature argued that enhancing FA practices in the classroom significantly raised students' scores in SA exams such as GCSE (Black, Harrison, Lee, Marshal, & William, 2003). Correspondingly, educators are encouraged to activate the impact of both of formative comments and summative grades to nurture all the aspects related to the context of the assessment and its influence on education. Brookhart (2001) found that the use of FA and SA simultaneously is part of successful school experience that should be integrated in the learning process to meet teachers' expectations. This effective integration will allow academic leaders to reflect on how good or bad they are doing at certain point and to establish future learning plans based on their assessment data (Orlich et al., 2013).

Methodology

Mixed methods procedures are carried out to fulfil the purpose of the study by investigating teachers' perceptions of assessment practices in Dubai and to what extent assessment data is used to improve different educational aspects. Mixed method is defined as "an approach to inquiry that combines or associates both qualitative and quantitative forms" (Creswell 2009, p.4). Hence, the current research problem required many approaches to be implemented for more depth and breadth understanding of all its aspects (Fraenkel & Wallen, 2012). Data is collected in concurrent stages to fully understand teachers' perceptions. Quantitative data is gathered at the first stage by teachers' questionnaire to understand their perceptions about types of assessment practices they believe in its implementation.

Some open-ended questions are added to this questionnaire with respect to participants' anonymous to collect qualitative data and increase its validity (McMillan & Schumacher, 2010). For more reliability, the questionnaire is adapted from a previous study investigated teachers' perceptions and practices of classroom assessment in Malawi (Susuwele, 2005).

In the second stage, two semi-structured interviews were carried out face-to-face with a head of assessment and a school academic supervisor. Fraenkel & Wallen (2012) explained that this social interaction tool is very useful to deeply understand participant' feelings and thoughts in the form of qualitative data as well as their intentions to address the problem that can be discussed freely in the interview time. Two academic experts with 15 years working experience in the assessment field reviewed the interview protocol to increase the reliability (Creswell, 2009) of this instrument. The purpose of this tool is to collect data about how school administration use assessment information to enrich the students' learning experiences and academic leaders' perceptions about the actual assessment practices that are usually implemented at the school.

This study targets Dubai teachers as the population who were asked to respond to this assessment research in the context of teaching. Thus, teachers of core subjects such as Mathematics, Science and English are chosen to kindly participate in the questionnaire as a non-probability sampling in order to explain their perception of assessment practices. The questionnaire purpose and its questions were sent to about fifteen of Dubai private schools to give permission and encourage their teachers to reply to the given questions over three weeks period of time. Only thirty-nine responses were gathered from different schools because of the limited time available and accessibility problems that prevent collecting data from the whole population. These responses represented the "convenience sampling" (Cohen, Manion & Morrison, 2011, p. 155) from the wider population based on the opportunity and

availability. It is also taken into consideration that all Dubai schools are inspected by KHDA and their performance is evaluated by same rubric as a similar characteristic between participants.

Hence, it is recommended in the traditional mixed method design to triangulate the data for more valid and considerable information (Cohen et al., 2011). Interview questions were sent by email to one of the KHDA inspectors to collect more qualitative data and enhance reliability of the finding (Lodico, Spaulding, & Voegtle, 2010). Finally, the current study considered all the ethical approvals to avoid any anticipated dilemmas (Punch, 2005).

Data Analysis and Findings

- Demographic Information

Demographic Information		Number of respondents	Percentages of responses
Gender	Male	8	21%
	Female	31	79%
Teaching experience	1-4 years	2	5%
	5-10 years	34	87%
	More than 10	3	8%
Grade level taught	Elementary	7	18%
	Middle	12	31%
	High	20	51%
Academic	Bachelor	31	80%
	Diploma	4	13%
qualifications	Master	4	8%
Class size	Less than 20	5	13%
	21-29 students	32	82%
	30 & more	2	5%
PDP	Yes	39	100%

Table 3: Teachers' demographic information

Teachers' perceptions of assessment practices in the context of teaching

Majority of core subject teachers 83% believe that classroom assessment is a tool that teachers use to inform teaching and learning. The results of the questionnaire are divided into three clusters based on types of assessment practices as represented below.

- **Assessment for learning**

The highest mean of FA practices that core subject teachers believe in their importance in the classroom assessment process is for both writing quizzes after each topic and in-class activities consolidate the lesson's objectives (4.9, 4.7 respectively). While the lowest mean is for three assessment themes; assessing students' prior knowledge (3.5) and giving them enough time and structure for reflection and providing feedback (3.9) as well.

Regarding alternative assessment practices; the highest mean of teachers' perceptions came for using students' portfolios as an evidence of learning (4.2). While carrying out an interview with students to identify their learning needs is the lowest mean (3.4).

Assessment for learning		
Formative assessment "Ongoing assessment"	**Mean**	**SD**
1. I encourage my students to talk and share ideas	4.5	0.5
2. I design my class to allow me to monitor students' progress.	4.4	0.62
3. I give feedback when they need directions to proceed	3.9	0.85
4. Students' prior knowledge is assessed	3.5	0.87
5. I provide an adequate time and structure for reflection.	3.9	0.87
6. My lesson progress based on students' responses	4.4	0.54
7. The in-class activities consolidate the objectives of the lesson	4.7	0.46
8. My questioning methods are to enhance students' conceptualization.	4.5	0.64
9. I use written quizzes after each topic	4.8	0.43
Alternative assessment "Criterion-based"		
10. I interview my students to discuss what they have learned and their needs.	3.4	0.98

11. I perform classroom observation to determine how students' learning be improved	4.1	0.78
12. I demonstrate to students how to use self assessment	4.1	0.9
13. I allow students to perform task-based activities " projects, products, design…."	3.9	0.79
14. I use students' portfolios as an evidence of learning.	4.2	0.7

Table 4: Teachers' responses on assessment for learning practices

- **Assessment of learning**

The highest mean that represent both of designing final exams and participating students in international standardized exams such as TIMSS and PISA is (4.7). While the lowest mean came for improving teaching instructions based on international assessment's results and having a discussion with other parallel teachers about students' weaknesses and strengths (3.7, 3.8 respectively).

Assessment of learning		
Summative assessment "Written exams "Paper, Pencil – based"	**Mean**	**SD**
1. I measure learning outcomes based on lesson objectives	4.5	0.93
2. I design diagnostic tests for my students	4.2	0.77
3. I analyse the results of the diagnostic tests	4.1	1
4. I design term exams/ final exams	4.7	0.44
5. I analyse the data provided from final exams to judge the quality of learning.	4.4	0.66
6. Students (in my school) share in international standardized tests (TIMSS/PISA)	4.7	0.45
7. I (my school) share in analysing international assessments' findings.	4.2	0.75
8. I improve my teaching instructions based on international assessment's results	3.7	1.25
9. I discuss my students' weaknesses & strengths with parallel teachers to share ideas	3.8	0.97

Table 5: Teachers' perceptions on assessment for learning practices

Uses of assessment information to improve the learning process

In the light of teachers' perceptions, the highest mean of responses is for using assessment data to assign students' marks or grades (4.8). Followed by informing parents about their students' progress

(4.7). While the lowest mean is for adapting teaching instruction and developing the curriculum based on the assessment information (3.1, 3.6 respectively).

Uses of assessment results		
Implications	Mean	SD
a. Assign marks or grades	4.8	0.42
b. Adapt my teaching instruction	3.1	1.05
c. Inform parents of students' progress	4.7	0.45
d. Group students for differentiated activities.	4.3	0.61
e. Identify students in need of remedial classes.	4.5	0.59
f. Provide data for national or local monitoring	4	0.89
g. Develop the curriculum based on assessment results	3.6	1.17
h. Make suggestions to develop students' learning strategies.	4.2	0.77

Table 6: Teachers' responses on uses of assessment results

Teachers' qualitative responses

More teachers' perceptions were collected qualitatively by three open-ended questions for further explanation to their experiences.

- **Main differences between formative and summative assessments**

Majority of core subject teachers distinguished accurately FA and SA methods and their benefits. Example of teachers' responses;

- *'Formative assessment is an ongoing assessment where feedback should be given to students to improve their learning abilities and monitor their progress. While summative assessment is used to judge quality of learning through measuring their attainments at the end of term or the academic year and should be announced and students have time to review'*

- **Main impact of assessment practices on your classroom**

Teachers confirmed that assessment practices have a strong impact on their classes and stated that

  - *'Assessment is an amazing form of teaching learning evaluation, which has a great impact on improving instructions and monitoring students' learning. Additionally, students' self assessment enhance them to be more independent learners'.*

  - *'When students are assessed consistently in the classroom, they become more aware of what is expected from them to be achieved and enhance their evaluative abilities to their next task, which is useful in preventing any conflict with teachers regarding their final evaluation'.*

- **Best type of assessment that help teachers achieve their class objectives**

All core subject teachers recorded that they prefer types of FA practices, which enable them to achieve the lesson objectives more effectively. The following is some examples of their statements.

  - *'I prefer formative assessments in different approaches: discussion, reflection, short quizzes as learners are in the process of making meaning of new content and integrating it into what they already know'*

  - *Hands on activity. Checklists and observation are my best practices because my feedback to students and their reflection on their learning experience put them always back into the right track to achieve the required objectives'.*

Academic leaders' responses

Assessment practices and its impact on teaching and learning processes as well as the actual barriers that prevent authentic assessment in Dubai schools were discussed in two semi-structured interviews face-to-face with one of the head of assessment department (P1) in a private school and an academic supervisor (P2) in another private school in Dubai. Followed by a formal communication with a KHDA inspector (P3) to impact the study through email conversation. Some interpretations and discussion are embedded in this qualitative data to clarify the similarities in participants' perceptions.

- **Teachers' implementation of successful practices**

P1 asserted that her teachers are implementing successful practices of different types of assessment where their implementation is usually inspected and their feedback to students is also checked as an evidence of ongoing assessment. Additionally, students' progress is also monitored. In contrast to P2 who inspected different levels of assessment at her work and added

'Not all of them are implementing the assessments for learning in a proper way., and not all our formal exams are aligned with the standardized assessments. I assess teachers' implementations by observations for the assessments that are for sake of learning. Beside, revising the short quizzes before giving to students'

P3 recorded that although a steady improvement in education has occurred overall including teachers' assessment practices, some schools still struggle to assess their students successfully and the competition between schools exist in different areas. Evaluating assessment process at Dubai schools is part of the KHDA scheme that starts from school self-evaluation form to support their work with any possible evidence in the form of evaluation not narrative description. Attainment and

assessment are performance standards where schools should analyze the data from any relevant internal assessment for both formative and summative to be investigated during their visit.

- **The effect of assessment on curriculum and learning process**

Interviewees believed that assessment is a critical tool that helps to find the gaps on the covered curriculum standards. Accordingly, scope and sequence can be modified. Curriculum checklist is also used to show the number of covered standards, the frequency of teaching them and their assessment practices. Furthermore, learning process is enhanced, as students are involved in reflecting on their assessment results to be more self-regulated learners. Teachers also take feedback to modify and arrange for remedial classes. Diagnostic test results help in setting differentiated learning groups to measure their progress later on.

- **The impact of standardized tests on school assessment system**

All participants agreed that international assessment such as TIMSS, PISA, IBT are useful to a great extent because it helps in redesigning the assessment framework and to judge and validate the quality of the internal assessment (KHDA, 2014). Moreover, they enable teachers to define the gaps in their students' skills and content knowledge. Despite its benefits, criteria used in international assessments are not easy in marking students and their rubric might be used in a subjective way.

- **Barriers of implementing authentic assessment in schools**

Participants listed different obstacles of assessment and illustrated that teachers do not have enough time to cover the required standards which in order affect the time needed for assessment leaders to reflect on all the assessment's results and studying them for further implications. Besides setting for several types of assessments according to KHDA requirement gives them many information and

some of these data can be used in different ways. Finally, the lack of enough human power to work on the analysis works against the assessment goals (Christopher et al., 2012). In order to overcome these difficulties, they suggested to decrease the teaching load time, which allow the teacher to allocate more time to study and analyze the assessment result, to increase the data analysis team and number of academic schooling days. Finally, communication with assessment experts is essential to increase teachers' awareness of assessment and its impact on learning.

Discussion

Although the current study was conducted in a small scale, many useful issues are raised regarding assessment and its impact on the quality of learning. The research questions were fully answered and results found that teachers have acquired clear knowledge about the meaning of assessment and its main types and they can successfully distinguish between FA and SA and their benefits as well. This indicates the effectiveness of the consistent professional development programs that explain the pedagogical theories of assessment and their importance in the context of teaching. Regarding assessment for learning; Despite the emphasis of a comprehensive review of FA on the consistent positive effects of feedback and its powerful influence on learning compared to all other teaching aspects (Thorpe, 1998), teachers' perceptions gave more attention to writing quizzes at the end of each topic and preparing activities that support lessons' objectives. Ironically, these responses also indicate lack of enough attention to the time required for students' reflection and teachers' feedback, which is the core of FA practices. In addition, a previous case study found that assessing students' prior knowledge is critical as the type of knowledge makes a difference in students' achievement (Hailikari, Nevgi, & Lindblom-Ylänne, 2007). Additionally, great concern was revealed to using students' portfolios for learning, Which reflect that teachers' focus on the use of documents-based

assessment to grade their students is more heavily than exploring their perceptions and needs for improving learning in a more anonymous way. Dyer (2013) argued that generally FA is a practice that should not be used for grading learner but for preparing them for SA where attainments are measured.

Regarding assessment of learning; although KHDA 2015 encouraged Dubai schools to analyse their international assessment results to modify teaching and learning practices, less focus was given to the use of data analysis to improve their teaching instructions, which is similar to Doig's findings in 2006. Alternatively, teachers gave more focus in designing internal final exams. Hence, Literature of assessment proved that assessment practices are strongly affected by teachers' perceptions of assessment (Chester & Quilter, 1998). Results of FA, SA and uses of assessment data imitate that core subject teachers still give more emphasis on exams as a document of grading students rather than identifying the weaknesses and strengths of the learning process, teaching instructions or developing curriculum to be gradually improved. These results came similar to a previous study, which found that participating teachers mostly perceived assessment methods as testing (Susuwele, 2005). Non-traditional types of training and more innovative practices should be provided to pre-service teachers to minimize the gap between teachers' preparation and the reality of assessment challenges. Indeed, the paradigm of students' role should be shift from being reactive to be more proactive in using their assessment results and generating useful feedback (Nicol & Macfarlane-Dick, 2006).

Qualitative data analysed from the interviews mirror the mismatch between academic leaders' opinions related to the success of teachers' assessment practices at their schools and confirmed by KHDA results 2015. On contrary to teachers' perceptions, P1 advocated that great effort is done to modify the scope and sequence to develop the curriculum and students usually reflect on their assessment results. Moreover, leaders' responses clarified that the design of internal assessments is influenced by international assessment results based on KHDA instructions.

Barriers of authentic assessment have been confirmed in the literature including load of teachers, time required for data analysis, lack of human power (Christopher et al., 2012). The current study introduced suggestions based on assessment experts' reflection on their experiences that should be investigated. Increasing number of school days and data analysis team while decreasing teachers' load might affect the educational budget. Further studies are recommended to investigate the extent to which administrators are willing to study the solutions provided at this study to overcome the assessment barriers.

Conclusion

Methods of assessing students internally and internationally can certainly make a big difference to how students learn in Dubai. There is a need for professional assessment practitioners to take the lead in suggesting solutions to address the complex and multiple assessments' discrepancies found in schools. Evidence-based assessment research should seriously be used to take decisions about assessment strategies and the follow up on all its sequences in order to reduce the gap between teachers' beliefs and their actual practices. There is a need of more innovative development

programs to increase teachers' awareness of classroom assessment implementation to provide

feedback about students' learning rather than grading their work.

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Appendix A; Teachers' Questionnaire

This questionnaire is going to ask about essential elements in your teaching practices that reflect types of assessments that are implemented in the classrooms.

There are no correct or incorrect answers and all responses will be kept confidential.

Section 1; Teachers' demographic information.

School			Nationality	
Name			Subject	
Average number of students in your classes	Less than 20 ( )	21-29 students ( )	30 & more ( )	
Gender	Male ( )		Female ( )	
Teaching experience	1-4 years ( )	5-10 years ( )	More than 10 years ( )	
Grade level taught	Elementary school ( )	Middle school ( )	High school ( )	

Academic qualifications	Bachelor	( )	Diploma	( )	Master	( )
Professional development training	Yes	( )	No			( )

Section 2: Classroom assessment preferences that are implemented in your class.

- *__Mark a statement below that best defines assessment as you use it in your classroom.__*

  o Classroom assessment is a process of administering a test to students in order to assign grades and report to parents and officials.

  o Classroom assessment is a process, which helps teachers to promote students from one class to another.

  o Classroom assessment refers to all tests a teacher give at the end of a topic or term

  o Classroom assessment is a tool that a teacher uses to inform teaching and learning

- The questions on this questionnaire relate to classroom assessment. For all sections, please circle the choice that matches your perception. Use the following rating scale for Questions 1-15

5=strongly agree Use it always	4= Agree Use it frequently	3= Not decided Use it occasionally	2= disagree Use it seldom	1=Strongly disagree Never use it

- To what extent do you believe that each of the following practices is essential as a part of the assessment process?

Assessment for learning	5	4	3	2	1
Formative assessment "Ongoing assessment"					
15. I encourage my students to talk and share ideas					
16. I design my class to allow me to monitor students' progress.					
17. I give feedback when they need directions to proceed					
18. Students' prior knowledge is assessed about this phenomenon under investigation.					
19. I provide an adequate time and structure for reflection.					
20. My lesson progress based on students' responses					
21. The in-class activities consolidate the objectives of the lesson					

22. My questioning methods are likely to enhance the development of students' conceptualization.					
23. I use written quizzes after each topic					
Alternative assessment "Criterion- based"					
24. I interview my students to discuss what they have learned and their needs.					
25. I perform classroom observation to determine how students' learning be improved					
26. I demonstrate to students how to use self assessment					
27. I allow students to perform task-based activities " projects, products, design…."					
28. I use students' portfolios as an evidence of learning.					

Section 3: School assessment preferences.

- How much emphasis do you place on the following sources to monitor students' progress?

Major emphasis = **ME**	Some emphasis **=SE**	Little emphasis = **LE**	No emphasis = **NE**

Assessment of learning				
Summative assessment " Written exams "Paper, Pencil – based"	**ME**	**SE**	**LE**	**NE**
1. I measure learning outcomes based on lesson objectives				
2. I design (work in team to design) diagnostic tests for my students				
3. I analyze (work in team to analyze) the results of the diagnostic tests				
4. I design (work in team to design) term exams/ final exams				
5. I analyze (work in team to analyze) the data provided from final exams to judge the quality of learning.				
6. Students (in my school) share in international standardized tests (TIMSS/PISA)				
7. I (my school) share in analyzing international assessments' findings.				
8. I improve my teaching instructions based on international assessment's results				
9. I discuss my students' weaknesses, strengths and their needs with other teachers to share ideas and solutions.				

Section 4: Assessment impact.

- To what extent do you use assessment information for each of the following practices?

5=A	4= F	3= O	2= S	1=N
Use it always	Use it frequently	Use it occasionally	Use it seldom	Never use it

Uses of assessment results	**A**	**F**	**O**	**S**	**N**
i. To assign marks or grades					

j. To adapt my teaching instruction					
k. To inform parents of students' progress					
l. To group students for differentiated activities.					
m. To identify students in need of remedial classes.					
n. To provide data for national or local monitoring					
o. To develop the curriculum based on assessment results					
p. To make suggestions to students about how they develop better learning strategies.					

Section 5: Answer the following questions:

1. What are the main differences between formative and summative assessments?

2. What is the main impact of assessment practices on your classroom? Explain

3. Which type (tool) of assessment best help to achieve your objectives in the classroom? Give example

Appendix B; Academic leaders' interview

- **Interview Protocol Project: British University in Dubai (BUID):**

Date:	
Place:	
Interviewer: Marwa Al Tanahy	
Interviewee:	
Position of interviewee:	
How many years in the school:	

- **Brief description of the project;**

> The purpose of the study is to explore and explain teachers' perceptions of different types of assessment practices, and to understand the extent to which assessment information is used to improve the learning process.

- **Questions:**

1. Do you think that your teachers at the school apply successful assessment practices in their classes? How do you assess their implementations?

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2.   To what extent do assessment types and practices affect the development of the curriculum? Explain; give examples or evidences (if found).

3.   To what extent do international assessments (Standardized tests) impact your school assessment system? Give examples.

4.   What are the barriers that prevent teachers to apply authentic assessment in your school?

5.   How do you use assessment results and information to improve the learning process at your school?

6.   As an assessment inspector, what are the main obstacles that prevent you to effectively use the assessment information for improvement purposes?

7. From your experience, what should be done to overcome these assessment barriers?

Appendix C; Inspector interview (by email)

- **Interview Protocol Project: British University in Dubai (BUID):**

Interviewer: Marwa Al Tanahy
Interviewee:
Position of interviewee:
How many years in this position:

- **Brief description of the project;**

> The purpose of the study is to explore and explain teachers' perceptions of different types of assessment practices, and to understand the extent to which assessment information is used to improve the learning process.

- **Questions:**

1. Do you think that teachers at Dubai schools apply successful assessment practices in their classes? How do you assess their implementations?

2. To what extent, assessment types and practices affect the development of the curriculum? Explain; give examples or evidences (if found).

3. To what extent do international assessments (Standardized tests) should impact the schools' assessment system? Give examples.

4. What are the barriers that prevent teachers to apply authentic assessment in their schools?

5. How do you use assessment results and information to improve the learning process?

6. As an assessment inspector, what are the main obstacles that prevent educational leader at schools to effectively use the assessment information for improvement purposes?

7. From your experience, what should be done to overcome these assessment barriers?

The Contemporary Environment of Higher Education Institutions (HEIs) Amidst the Dynamic Challenges – A Literature Review

M.S. Mughal*[1], A.D*[2]. Ross, D.J. Fearon*[2]

*[1] PhD Scholar, Liverpool John Moores University, Henry Cotton Building, Liverpool L3 2ET, UK

*[2] Liverpool John Moores University (United Kingdom), Liverpool, L3 3AF, UK.

*[1]Corresponding Author: Email: M.S.Mughal@2015.ljmu.ac.uk, orcid.org/0000-0001-8835-6017

Abstract

This paper examines works on the key changes and challenges experienced in contemporary Higher Education Institutions (HEIs) environment. A methodical literature review is conducted to establish the key themes that are affecting the Leadership and Management in HEIs in related context. The education sector is enduring enormous pressures exerted on the Leadership and Management both from internal and external sources. Factors influencing such mounting pressures include aspects such as increased student numbers, government and organisation policies, working in bureaucratic structures, immense workloads, accountability, and transparency to mention a few. Thus, training and development is crucial for Leadership and Management to toil ingeniously in their respective HEIs roles to control and manage people, processes and procedures. In particularly, this assertion is influenced on the Middle Managers (MM) who act as an equilibrium in balancing protocols from senior and junior staff and are pretentious the most.

Keywords: Changes and Challenges, Middle Managers (MM), Higher Education Institutions (HEIs), Developmental Needs, Human Resources (HR), Leadership and Management, Key Performance Indicators (KPIs).

Literature review

1. Introduction

The current developments in UK Higher Education Institutions are faced with immeasurable changes and challenges. Significant factors such as leadership, management, practices, globalisation, cost, student experiences, key performance indicators (KPIs), technology, talent, research and investment have strongly influenced the leadership to make vital decisions for institution success. To effectively manage these outcomes, the hierarchical leadership in such public institutions need to be supportive, transparent and flexible for ultimate performance. It is key to establish the key themes that are driving the HEI sector to better understand and develop and train the roles of Leadership and Management in dynamic environment.

2. Higher Education Institutions (HEIs)

In 1963, a committee on Higher Education in UK, chaired by Lord Robbin published a report on reform and reorganization of higher education scenario. Considering on the report's publication, its conclusions were acknowledged and approved by the government in October the same year. The report recommended immediate expansion of universities, a rise in the number of full time university students and that Colleges of Advanced Technology should be given university status (Thomas, 2014). In 1992, the so called binary divide system was paved away when polytechnics merged as new contemporary post 1992 universities. In 1997, the key highlight in HEI was the "The Dearing Committee of enquiry report" that reacted to an expanding debate on the HEI environment and outlined the increase of student numbers created critical funding problems and something needed to be done to sustain the costs. That was an indicator to charging students for education in years to come (Lunt, 2008). In 2010, a review of HEI titled " Securing a Sustainable Future for

Higher Education" shed light on the funding of higher education and made recommendations intended to make sure that teaching within higher education institutions could be sustainably financed (Browne et al., 2010).

In contemporary setting of UK education system now, there are 155 HEIs, 190 Further Education Colleges (FECs) and 13 alternative providers of education. Reforms and changes are taking place so rapidly in all sections of HEIs system in the UK that it's difficult to comprehend the length and breadth of HEIs as a whole picture. As an example, the National Student Survey (NSS), a body that provides a recognised set of information which drives and monitors improvement in the student academic experience and helps prospective students make informed choices (NSS survey 2016), are restructuring and reinventing their survey in 2017. Additionally, the government plans to change the ever-dynamic environment of HEIs by shifting its landscape by means of proposing an education (BIS, Higher Education and Research Bill, 2016). The bill further promotes to student choice by giving them key information on where they can access key information on HEIs and courses and excellent teaching by introduction of the Teaching Excellence Framework (TEF). Support HEIs, by empowering the establishment of more new high-quality HEIs so students access options from wider range of institutions. Advance teaching quality and standards, so students and employers get the skills they require. Place more HEI related information in the grasps of students through so called "transparency revolution". Improve on regulations and placing students at the heart of higher education reflected in regulations. It is speculated that, expected governing changes governing in the HEIs by the Government would be replacing the Higher Education Funding Council for England (HEFCE) and the Office for Fair Access (OFFA) with a new market regulator, the Office for Students (OFS). Boost social mobility, life chances and opportunity for all through widening

participation. Enhance the reputation of our world-class higher education system by offering world-leading research and innovation and protect the research funding system.
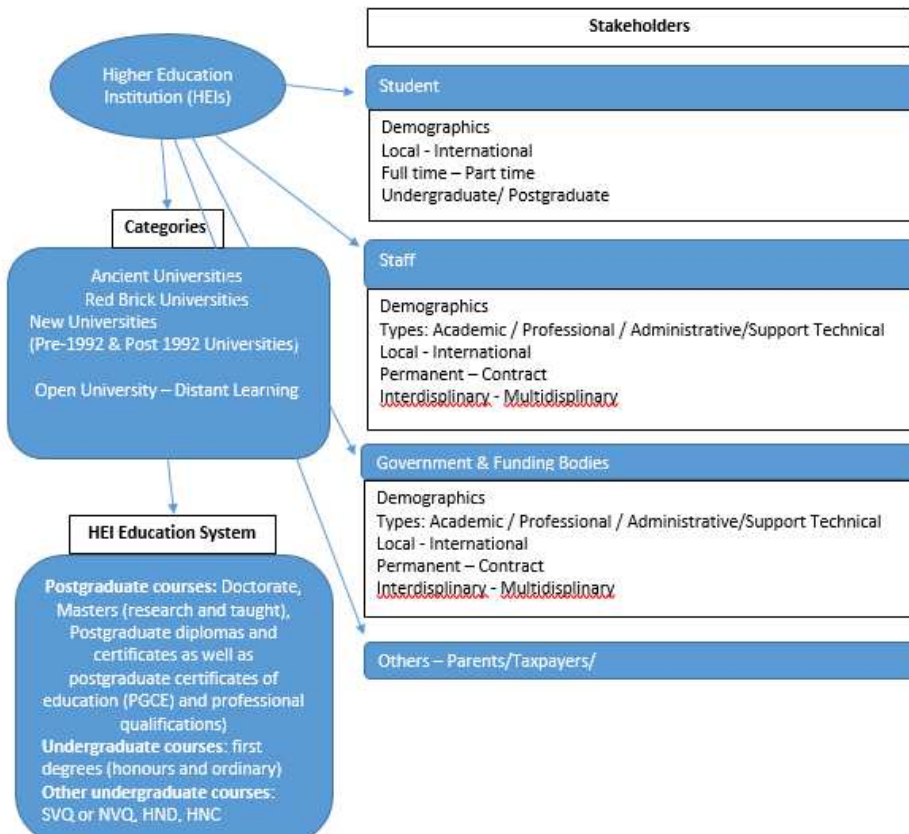
Figure 1: The Structure of UK HEI Environment

3. Leadership and Management in HEIs

Typically, the principle in success of role in the public-sector leadership is founded on achieving and restructuring of public services delivery, allowing 'leaders to lead' and 'managers to manage' by implementing local resolutions (Goldfinch and Wallis 2010). In UK, today, it appears likely that public sector funding will be cut drastically in few years. This has prompted the Higher Education Funding Council for England (HEFCE) to suggest HEIs sector to undertake scenario planning to

help institutional leaders and managers to contemplate on future opportunities and foresee challenges in this uncertain environment. This rapid change has left people, and HEIs without a clear 'story' within which to operate. Scenario planning, by being creative with different' stories' about the long-term future, can help institutions both to adapt to, and help create, whatever 'New Story' is emerging. Similar ideas are proposed by (Huisman, 2012) in his research. Jónasson, combines future planning with decision-making in his approach to harmonising HEIs in this aspect of challenging leaders (Jónasson, 2008).

In a research project investigating the styles, approaches to leadership, and leadership behaviours, which are associated with effectiveness in higher education Bryman work deduced that styles of or approaches to effective leadership in HEIs should entail leaders and managers to possess certain skills and criterion as summary below; (Bryman, 2007)

4. Middle Managers in HEIs

It is generally assumed that the role of middle managers lacks empirical evidence. After several decades of research examining the role of middle managers and organizational change processes, no governing theoretical approach has emerged to justify for the pragmatic phenomena (Conway and Monks, 2011). It is principally agreed that the institutional complexity of bureaucratic structures, through which middle managers operate, creates a challenged terrain for the enactment of change agency roles. Conway and Monks further suggest there is a lack of empirical evidence addressing how tensions and ambiguities in the middle manager role are played out in modern public services, especially across different organizational types.

In this context, it is worthwhile to consider Currie suggestion that middle managers are under new managerialism. The most persistent role demanded of middle managers under modern managerialism has been that of 'entrepreneurial leader', the requirement to adopt the techniques

and practices of private sector counterparts in order to lead in the delivery of innovative public services and culture change (Currie et al. 2008).

In a study titled " To investigate the personal and professional circumstances that lead academics to become middle managers" the author concludes that there is a rising perception that the pressures associated with being an academic middle manager outweigh the perceived rewards of the position in HEI today. Next, the key issue in academics to becoming middle managers is that Head of departments (HoDs) are taking on an amassed amount of management and bureaucratic work at the expense of their teaching and research in the HEIs (Floyd, 2012). His findings revealed that family background and schooling, university experiences, emerging career and forming an academic identity were part of reasons for becoming a HoD. What is demonstrated is the perception of lack of loyalty from both institutions and individuals and accountability across the sector, have meant that the role of an academic (HoD) is also changing and becoming increasingly complex. On the other hand, it is believed that large number of academic staff are now employed on fixed-term contracts (Collinson, 2004). In contrast, there is another branch of career track managers who as academics predominantly in post-1992 universities, want to deliberately move away from teaching and research, and see taking on a management role as a way of achieving being career-track managers (Deem, 2004).

While there is a good deal of ambiguity about what a the role of a middle manager is, author Gatenby and his colleagues describe the role of a manager being as of a change agent within public services is which is far from letting 'managers manage' or 'leaders lead', government modifications

appear to have fostered an environment in which middle managers' roles are as pressured by central government as they ever were (Gatenby et al, 2014).

5. Contextual themes of changing and challenging environment of HEIs

Recently, authors Trowler, Ashwin, & Saunders (2014) share that the current changes in HEIs are giving way to mistrust within the profession, greater workloads for academics, a decline in collegiality, and a threat to self-identity. It is apparent to note that income pressures and shifting towards autonomy and entrepreneurialism will as author Vincent-Lancrin laments, spread pressures for HEIs to generate income. Stakeholders demanding better public management and governance – defined by accountability, transparency, efficiency, effectiveness, responsiveness and forward vision (Vincent, 2004). The structures of HEIs, regulation and governance of different structures of higher education is another key challenge (Kubler and Sayers 2010). Other key factors include impact of technology as reported in Cooke's report on e-learning that contributed to the UK government's debate on the future of higher education, laments that when talking of technological advances, predictions beyond a few years is a fool's game (Cooke, 2008); The Impact of a "Changing Student Population" that examines possible student demographic changes (including overall rates of participation, changes in student type, and variations by region) and international student mobility and discovers some of the implications of potential transformations (Altbach, et al, 2009); changing academic and professional roles (Middlehurst, 2010); Changing Staffing Models (HEFCE, 2010); Quality Assurance in UK Higher Education (Hoecht, 2006); Accountability and Transparency (Watson, 2011); New Public Management (Hood, 1991); Effective Leadership (Bryman, 2007); Policy changes (Stanfield, 2011) and last but not least HEIs strategies that are driven by a desire to be at or near the top of rankings and league tables (Cowen, 2007).

The current changes and challenges experienced in HEIs environment are highlited in the matrix framework table below. The themes are expressed against the aspects and dimensions as evidenced by potential authors.

Theme	Aspect/Dimension	Author
Traditional academe	Most academic middle managers still rooted in the world of traditional academe.	(Hotho, 2013)
Technology advances	Influenced Government debate on future of HEIs in technology advances e.g. E-learning	(Cooke, 2008)
Browne Review	Investment, Student choice, widening participation, flexible payments, paying affordability, Part time and full time learning costs	(Browne et al., 2010: 2). Browne J, Barber M, Coyle D, Eastwood D, King J, Naik R and Sands P (2010)
Building a conceptual framework	A conceptual framework that theorizes the reflective practice supporting middle managers in understanding and facilitating large-scale change management projects in HEIs helps deeper understanding and better informed decision-making	(Birds, 2014)
Change and uncertainty	Effects of the global financial crisis; social, environmental, and demographic change; fast paced developments in technology; and increasing national and international competition for students, staff, and funding by Higher Education Institution	(Bolden et al, 2015).
Changes and pressures in Higher Education and Research Bill	Student choice, excellent teaching, smarter regulation, and UK to become world leading in research and innovation	(BIS, 2016)

Current changes experienced by middle managers	Mistrust, collegiality, workloads, loosing self-identity for academic managers	(Trowler, Ashwin, & Saunders, 2014)
Dearing Committee report	Student numbers increase & funding problems	(Lunt, 2008)
Decision making processes	Majority academics feel ignored as a resource – being highly educated, intellectually smart, often eloquent staff – remains underused in institutional decision-making.	(Bacon, 2014)
Fixed-term contracts	Large number of academic staff are now employed on fixed-term contracts	(Collinson, 2004)
Future planning with decision-making	Combines future planning with decision-making in his approach to harmonizing HEIs in this aspect of challenging leaders	(Jónasson, 2008)
Inadequate training and non-existent job descriptions	Smith identified that inadequate training and non-existent job descriptions were also a deterrent factor especially in the Chartered (pre-1992) universities. These elements were the main causes of stress, whereas the middle managers in the statutory (post-1992) universities suggested that a fundamental problem was the scale of the role in terms of department size, with general agreement that departments were too large to be managed successfully by one individual	(Smith, 2002: 296).
Innovations and disruptions	Too much innovation and disruption in HEIs	(Chater, 1998)
Student populations and demographics	Size, locations, genders, changes in student type, and variations by region and international student mobility	(Altbach, Reisberg, and Rumbley, 2009)

Lack of formal training for middle managers	New bureaucracies" are putting pressures on middle managers to perform efficiently lacks formal training for their management role. current lives involving long extended hours packed with meetings, mountains of paperwork and a continuous search for surplus resources. audit culture at the departments, rising student numbers and tensions between teaching and research.	(Deem, 2000)
Leadership styles and approaches	Styles of or approaches to effective leadership in HEIs should entail leaders and managers to possess certain skills and criterion	(Bryman, 2007)
league tables and rankings	HEIs strategies that are driven by a desire to be at or near the top of rankings and league tables	(Cowen, 2007)
misunderstanding of role meaning	role of an academic middle managers is still a misunderstood phenomenon and the meaning of role of the academic middle manager still gravitates between managerialism and collegiality	(Rudhumbu, 2015).
New managerialism	Middle managers are under new managerialism as entrepreneurial leaders. Requirements to adopt the techniques and practices of private sector counterparts in order to lead in the delivery of innovative public services and culture change	(Currie et al. 2008)
New Public Management	New Public Management	(Hood, 1991)
New Universities formed	In 1960s after the Robins Report.	(Thomas, 2014)

Policy changes	Government and internal HEIs policies changing rapidly.	(Stanfield, 2011)
Quality Assurance	Quality Assurance in UK Higher Education	(Hoecht, 2006)
Rewards, Teaching and research in bureaucratic structures	Pressures associated with being an academic middle manager outweigh the perceived rewards of the position in HEI today. Head of departments (HoDs) are taking on an amassed amount of management and bureaucratic work at the expense of their teaching and research in the HEIs	(Floyd, 2012)
Role of middle managers	After several decades of research examining the and organizational change processes, no governing theoretical approach has emerged to justify for the pragmatic phenomena. tensions and ambiguities in the middle manager role are played out in modern public services, especially across different organizational types.	(Conway and Monks, 2011)
Roles and careers	Changing academic and professional roles	(Middlehurst, 2010)
Scenario planning	Whereas scenario planning to evaluate future possibilities is also lacking in HEIs and should be encouraged	(Sayers, 2010)
Structures of HEIs	Regulations and governance	(Kubler & Sayers, 2010)

Scenario planning	scenario planning to help institutional leaders and managers to contemplate on future opportunities and foresee challenges in this uncertain environment.	(Huisman, 2012)
Scrutiny on public funding	Accountability and Transparency	(Watson, 2011)
Strategy and Communication	Lack of clear strategic direction from senior management, poor communications are other factors that requires human resource department to address by means of trainings.	(Beech and Macintosh 2012)
Student academic experience	National Student Survey (NSS) a body that provides a recognized set of information which drives and monitors improvement in the student academic experience and helps prospective students make informed choices.	(NSS survey 2016)
Accountability and transparency	Spreading pressure for HEIs to generate income. Stakeholders demanding better public management and governance – defined by accountability, transparency, efficiency, effectiveness, responsiveness and forward vision	(Vincent-Lancrin, S. 2004)
(BIS, Higher Education and Research Bill, 2016)	Competition and choice that promotes social mobility, boost productivity in the economy, ensure students and taxpayers receive value for. Safeguarding institutional autonomy and academic freedom, benefit from excellent teaching that supports their future productivity.	(BIS, Higher Education and Research Bill, 2016).

Table 1: Framework matrix showing the changes and challenge

Figure 2: Literature review emergent themes

Figure 3: Word cloud depicting key words from literature review framework matrix using Computer Assisted Qualitative Data Analysis (CAQDAS)

6. Conclusion

This paper has identified and reported on key themes reflecting on the changing and challenging environment of contemporary Higher Education Institutions (HEIs).

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The Effects of Using Cooperative Learning Elements in Promoting Interactive Learning in Science and Mathematics Classes in a Private School in Dubai, UAE

Mina G. Radhwan

The British University in Dubai

Abstract

Since the 1960s, there has been significant attention given to small-group learning approaches in the educational process. Cooperative learning is one of the most significant teaching strategies to have a substantial positive effect.

An observational tool had been used to conduct a qualitative study in order to examine the cooperative learning elements that have been used in both classes for grade 9 students.

The main phenomenon in this strategy is to identify and differentiate between the types of cooperative learning elements that are implemented in mathematics and science classes for grade 9.

Results specified that using more cooperative learning elements will increase the ability of the students towards better classroom interaction. Cooperative learning is capable of growing constructive interactions. With CL experience, students have the ability to ask many meaningful questions, helping and supporting their partners.

Keywords: Cooperative learning (CL) scientific skills, and learning outcomes.

Introduction

One of the important components that has a significant success in different school programs is cooperative learning (Slavin & Madden, 2001). Through this strategy, students can be responsible to their learning through their engagement in different activities (Orlich 2013). This research concentrates on how cooperative learning elements can promote the classrooms' interactivity in high school classrooms. Cooperative learning is an instructional method where students work together (Rohrbeck, Ginsburg-Block, Fantuzzo, & Miller, 2003; Slavin, in press; Webb, 2008) either in dyads (e.g., Fantuzzo, Polite, & Garyson, 1990; Maheady, Harper, & Mallette, 1991; O'Donnell & Dansereau, 1992) or in small groups with mixed-abilities usually with four – members (e.g., Slavin, 1994b) or even with different sizes of groups (e.g., Cohen, 1994; Johnson & Johnson, 1999; Kagan, 1992; Sharan & Sharan, 1992) in order to accomplish the goals of the lesson by helping each other. Through working in small groups, positive interdependence can be fostered. Cooperative learning can implement a logical environment which helps to increase interpersonal skills. According to (Johnson and Johnson, 2009), social skills can be enhanced in a better way through cooperative positions rather than individual positions. Moreover, Terenzini (2001) said that the skills of the students can be developed through cooperative learning. According to the explanation of Piaget about the students' characteristics in this stage, he said that the adolescent students in the formal - operational stage have the ability to think abstractly in addition to looking at different capabilities in the future. Students are able to deal with potential or hypothetical situations (Slavin 2011, p. 41).

There are many benefits for both students and teachers who are using cooperative learning methods and elements. Teachers can use the elements as an aid to manage and

give classroom instructions (Cohen, Brody & Sapon-Shevin 2004; Evertson, Emmer, & Worsham 2006). In addition to reducing the workload and stress level by teaching the students how to depend on the help of each other. On the other hand, cooperative learning has significant benefits and unique experiences for the students including firstly, the accountability for their learning. Secondly, having the ability to evaluate their own progress. Thirdly, building self-confidence and self-esteem as well as building communications and critical thinking skills which will lead them to be effective citizens in the future. Furthermore, cooperative learning has the ability to increase students' enthusiasm in order to accomplish academic success (Mueller & Fleming 2001; Roman 2007) especially for students diagnosed with (ADHD) attention deficit hyperactivity disorder by working through collaborative groups (Simplicio 2007). Moreover, according to the Constructivist Theory, Vygotsky approved that the students can reply better to a variety of instructions as a result of the positive effectiveness from the sociocultural nature of learning (Slavin 2001).

The major function of this research is to find out how cooperative learning elements can be helpful to enhance classroom interactivity. This research will take place in science and math for grade nine classes through teachers' observations in order to gain the suitable required data that will help to answer the question below:

- How do cooperative learning elements promote a better interactive classroom?

This study was designed to high spot the method of presentation through observing the kind of reasoning that is planned to figure the arrangement of each lesson's activities. The results will be analyzed and given in tables in order to differentiate the cooperative learning elements in science and math subjects.

Literature Review

Results from Golub and Buchs (2014) proved that the students' constructive interactions can be increased through a short training of cooperative learning. After this cooperative preparation, students were able to think and discuss extra questions as well as they can help their partners by paying more attention to them. Results from Tarhan, Ayyıldız, Ogunc, and Sesen (2013) presented that using one of the effective cooperative learning techniques called jigsaw, generates excellent acquisition of scientific concepts compared to the traditional way of teaching as well as it can enhance the students' motivation, self-confidence and their learning achievement. According to the study of Sears and Pai (2012), results had been confirmed that the high expectations from many trained teachers that implemented cooperative learning in their classrooms were achieved. In addition to another result which is mentioned by Hsiung, (2012) about confirming sustainability and significant performance in the students' homework and exams through using cooperative learning compared to the individual learning condition. Although, cooperative learning proved the positive effects in many studies but results from Salehizadeh, and Behin-Aein (2014) showed that there was a difficulty to implement the method in some classes in Iran due to the big number of students and the lack of educational background. A study from Zakaria, (2013) which demonstrated through analysis data confirmed that students are able to raise their understanding and advance their self-confidence in mathematics by using cooperative learning in both open-ended questions and the achievement exam.

Nowadays, companies recruit individuals that are able to engage cooperatively in groups. The Conference Board of Canada stated that learners require academic, educational, and cooperative skills all together. Researchers believe that a great majority of people lose their jobs due to their inability to work hand-in-hand with their

fellow colleagues. To help individuals develop and initiate their social skills to raise their possibility of keeping their jobs, cooperative learning has to be enforced (Johnson, David, & Johnson, Roger 1993).

Learners in schools with a noticeable approach to CL proved to be psychologically healthier in comparison to learners who weren't as exposed to cooperative learning. This can be proved by the findings of Slavin (1990) which stated that students take charge of their own future in regards to their education. Ross and Smyth (1995) indicate cooperative learning should be involved in a high level of thinking tasks, creativity and open-ended questions, therefore there are five main elements that are necessary for CL success. According to (Jacobs, Power, & Loh 2002; Johnson & Johnson 2004), these elements are: Positive Interdependence where the students work together and they should be a contribution from each team in order to succeed, the second element is Face-to-Face Interaction where the students interact through talking, thinking and assisting each other towards a good performance, the third element is Individual Accountability which is related to the individual performance or contribution in order to get her/his grade depending on the academic achievement. The fourth element is Social Skills which is based on interpersonal skills improved through teaching these skills daily and asking the students for social processes and interaction feedback (Abruscato 1994; Kagan 1999; Wolford, Heward, & Alber 2001). The last element is Group Processing where the students have to evaluate their performance and think together about the advantages and disadvantages and the way to improve it.

Methodology

This research is conducted in grade 9 math and science classes in one of the private schools in the UAE. According to (Slavin 2001), fourteen year old students are represented in the stage of formal operation where they have the ability to cooperate with the hypothetical position. This will lead to a purposeful sampling research which is explained by (Lodico et al. 2010, p. 34). The total number of students will be 50 girls and boys mixed together in two classes. Some of the instructions are done already for this process like a signed school permeation for the classrooms' observation also an explanation to the participant teachers and the administration regarding to the reason of the study (see appendix A). The total number of the observational visit is four times, two for each math and science classes which took about 50 minutes for each period. The first participant is a male teacher with a bachelor degree and 10 years of experience in teaching math in elementary and secondary classes while the other participant is a female teacher with a master degree and 6 years of experience in teaching science in secondary classes.

An observational tool had been used to conduct a qualitative study in order to examine the cooperative learning elements that have been used in both classes for grade 9 students. A researcher writes notes on both students' activities and behavior (Creswell 2014). The context of the class can be affected by many factors which need to be observed in both classes in order to gain the correct information about the students and the teacher as well. Some of these factors are learning activities, teaching methods and strategies in addition to the behavior and the attitude of the students (Johnson & Christensen 2008). Attending as a complete observer is effective especially in avoiding any uncomfortable questions for the participant teacher related to different problems in class (Creswell 2009) therefore, all the collected data are qualitative through reporting considerable notes in science and math classrooms (Creswell 2008). Using the

observational tool will help to answer my question by concentrating on many interactive and different details. Another advantage for using this tool (appendix B) is increasing the validity and the accuracy of the study due to the observational tools' modification from determining student understanding in the science subject (Enger et al. 2009). The main phenomenon in this strategy is to identify and differentiate between the types of cooperative learning elements that are implemented in mathematics and science classes for grade 9.

Data Analysis / Finding

In the two subjects the teachers started by writing the date, objectives and the high expectations on the board. Both science classes were in the lab, the first observed period was about measuring liquids and dry ingredients in order to make chocolate chips. The four groups of students followed the instructions in the worksheet and they were able to complete their tasks. The second observed period was about linking density to sugar concentration, only three groups completed their tasks properly. The teacher worked as a facilitator and she provided her students with scaffolding to build their knowledge. Although there were different responses and results from the two classes, cooperative learning was implemented in both periods. According to the CL elements (Johnson & Johnson 2004), the below table summarized how CL was implemented for the two observed periods.

Science Class	
1st and 2nd Class Observations: Evidences of implementation	The seen elements of cooperative learning
Class 1: Each group discussed the instructions, assigned a responsibility to each member and accomplished the target of the lesson through depending on each other and working as a team. Class 2: Each team sits in the same place every lab session and were able to choose the leader, the name of the group, and assigned a task for each group member in the limited time.	Positive Interdependence
Class 1: Members of the group were supporting and assisting each other to promote success especially with the weak students through explaining how to follow the measurement instructions and measuring liquid ingredients properly. Class 2: A significant interaction observed in most groups through their leaders in order to clarify the target of the lesson and how to use a pipette to the groups' members.	Face-to-Face Interaction
Class1: There was a good response from each group member to express their understanding and they wrote a paragraph about what they learned today at the end of the period regardless of how professional the paragraph was.	Individual Accountability
Class 1: Each group member was able to communicate with other members in order to make a decision about the proportions of the ingredients. They developed their social skills by discussing different aspects of the experiment together and coming up with a unanimous conclusion. Class 2: There was a good communication trust in some groups in order to make a decision regarding the equation of linking density to sugar concentration.	Social Skills
Class 1: Each group was capable of discussing actions that support and hurt their group interaction.	Group Processing

1st and 2nd Class Observations: Evidences of implementation	The seen elements of cooperative learning
Class 2: All groups were able to write a positive point about their work and some groups were able to mention the reason that effected the group negatively from reaching the goal of the lesson.	

Table1: The observed cooperative learning elements in the science classes

On the other hand, the observed periods of mathematics were about divergent questioning, and the first period was about multiplying binomials using an area diagram to model the distributive property where the teacher asked the students to have a look at the problem and think how to solve it based on what they learned in the previous day. While in the second period, the teacher challenged his students to calculate and compare the cost of different cell phones plans using function tables and graphs. The table below summarizes how CL elements were implemented in the observed mathematics classes.

Mathematics Class	
1st and 2nd Class Observations: Evidences of implementation	The seen elements of cooperative learning
Class 2: There was a management system through a contribution from each group member in order to answer the challenging questions.	Positive Interdependence
Class 1: Only in the beginning of the period, each pair was able to think and discuss the mathematic problem together in order to share their decision with other pairs. Class 2: There was a good performance through talking, sharing and supporting ideas that will help in drawing the graph conclusion.	Face-to-Face Interaction
Class 1: Most pairs were capable of listening and respecting each other's opinions to make a decision regarding the problem question only because the students were working in pairs.	Social Skills

| Class2: There was good trust-building among group members in each student-center through effective communication in order to connect the lesson to real life. | |

Table2: The observed cooperative learning elements in the mathematics classes

Discussion

Although, there are some clues of existing most of the cooperative learning's elements in both classes and especially in the science class which reflect a positive pedagogical knowledge of the science teacher, there was a variety in many observational aspects due to the teacher's way of teaching and the given instructions. There are several benefits of using CL elements for instance, increasing the achievements of the students (Hanshaw, 2006; Zimbardo, Butler, and Wolf, 2003; Slavin, 1995) as well as the outcome benefits which are related to the students' social and psychological improvement (Vygotsky, 1978; McKeachie 1988; Kauchak and Eggen, 2005; Johnson and Johnson, 1999).

The following paragraphs explained the differences between science and math classes. In the science classes, many CL elements were available especially in class one. Firstly, students' participation was very effective in both periods, there was an articulate communication in the classroom with a high level of critical thinking, and they were working in small groups with a responsibility for each member in order to accomplish a task using a management system which represented the students' positive interdependence. This confirmed the results from Ross and Smyth (1995) in the literature review. Secondly, there was a big support and assistance from each member of the group which led to a significant interaction and success between the students

through sharing their opinions face-to-face (Johnson and Johnson, 1999). Thirdly, there was an evidence for the individual accountability in the first class through writing a paragraph from each member in order to clarify the students' understanding and his/her academic progress. Through this element, group members will be avoided from hitchhiking on other group members (Jacobs, Power, & Loh 2002; Johnson & Johnson 2004). Fourthly, group members were able to communicate, make a decision towards reaching the target of the lesson which lead to the development of the group members' social skills (Johnson 1997) and (Johnson and F. Johnson 1997). Lastly, students were capable of showing their group process by discussing some actions that were helpful and unhelpful to their interaction when the teacher asked them to do so. Using self-evaluation will help the students to maintain their work effectively (Johnson, Johnson, & Holubec, 1998).

On the other hand, in the mathematics classes there were some evidences of delivering pedagogy and exchangeable benefits in some aspects but the class interaction can be more dynamic and valuable if the teacher uses a more student-centered approach. As a result, students will be lacking mathematical conceptualization which makes it difficult to see the importance of it (Sherrod et al. 2009). The positive effects of using CL for the students' accomplishment had been established in literature since more than twenty years ago(Davidson, 1985; Johnson, Maruyama, Johnson, Nelson, & Skon, 1981; Newmann & Thomson, 1987; Sharan, 1980; Slavin, 1983), proving that the outcomes and the interaction of the students will be more significant than using the individualized formats (Johnson, Johnson, & Holubec, 1998) and (Sears and Pai, 2012), also in their homework and exams (Hsiung, 2012). In some aspects, there was good socialization and trust-building between the group members as well as face-to-face discussions in

order to answer the challenging questions, this will effect positively in students' achievement. This will promote a noticeable change in the sequence of traditional teaching where the teacher leads the discussion into a sequence of new teaching where the students are put in charge of the discussion (Day and Bryce 2013).

These results will help to answer the research question by confirming the importance of using the CL elements as an important part of teaching where students with different levels have the ability to interact positively with each other in order to meet the target of the lesson effectively and enjoyably. Working in small groups will enhance the potential for learning in depth through students' participation and it will produce remarkable results in the future including academic achievement, self-esteem, and communication skills. According to (Fernández, Javier; Cecchini, Méndez, Antonio, Aprendizaje 2014)'s study, they proved that CL is a positive instructional model which plays a significant role in the teacher's education and it increases the students' motivation, social goals and their interaction as well. This result is supported by many of the strongest and important researchers, Bossert, 1988-1989; Cohen, 1994; Johnson & Johnson, 1989; Sharan, 1980; Slavin, 1995).

Conclusion

Using more cooperative learning elements increases the ability of the students towards better classroom interaction. Cooperative learning is capable of increasing constructive interactions. With CL experience, students have the ability to ask many meaningful questions, helping and supporting their partners (Golub and Buchs, 2014). Students in CL action experienced attention conflict (Hsiung, 2012).

Mathematics and science are both strongly related. Both science and mathematics are both learned in similar techniques where this resemblance is seen as a positive effect towards students' learning. According to (Forawi 2010), science is a teaching method which is inductive in nature and it moves from different levels; from detailed approaches to general approaches, however, mathematics is classified as a deductive approach towards teaching and it moves from general teaching methods to more intense and detailed methods. Skeikha et al. (2011) reasoned that integrations between mathematics and science have great effects on gaining indispensable problem- solving techniques in science which are essential towards increasing the students' learning journey.

Recommendation

The research is constricted due to the class observations being used as a tool only. When CL elements are observed this will affect class interaction and activities greatly. Therefore, additional research must be carried out in order to examine how this technique affects the students' achievements by giving out additional instructions to remove ambiguities from the findings.

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Appendices

Appendix A – Letter to School Permission

Date: November 9th, 2014

Address: Mizher 1

Dear Administration,

The British University in Dubai offers a Master of Education (MEd) degree in different fields for interested students, teachers, and professionals in the United Arab Emirates. The master's programme is designed and developed in collaboration with the School of Education of the University of Birmingham, one of United Kingdom's leading schools of education. Our MEd programmes are approved and accredited by the Ministry of Higher Education and Scientific Research in the UAE.

The purpose of this letter is to kindly ask your permission to allow our Master of Education students, who present this letter to you, to conduct school experience by observing teaching and learning in classrooms in your school. In particular this school experience will do the following:

> Class Observations: BUiD student will coordinate with your teachers a visit schedule for at least two different subjects, two to four periods for each subject, this term starting November 1st to December 4th, 2013. Visits can be with two or more teachers for same or different classes. BUiD students will make the observations for class assignment, without interrupting classes and with complete confidentiality per the University's human review board policy..

Finally, we look forward to collaborating with you on this school experience and other future functions to benefit students in both, your school and BUiD. If you require any additional information, please don't hesitate to contact me at sufian.forawi@buid.ac.ae or 0501270746.

Sincerely Yours

Dr. Sufian A. Forawi,
Associate Professor of Science Education
Module Coordinator

Observational Report

Teacher _____   Level/Class _____   Number of Students _____

Subject: _____   Lesson Title _____

1) Lesson Effectiveness		Comments/Notes
A. <u>Teachers'</u> <u>Behaviours</u>	Giving instructions.	
	Asking challenging questions.	
	Working as a facilitator.	
	Encouraging students' motivation and critical thinking.	
	Moving around the classroom and checking/monitoring/questioning.	
	Facilitating meaningful discussions.	
	Asking for students' reflection individually/group reflection.	
	Encouraging students to consider multiple ways to solve problems.	
	Guiding students through meaningful real-world problems.	
B. <u>Students</u> <u>Behaviours</u>	Posing the question and investigating it.	
	Planning procedures.	
	Analyzing results / draw conclusions	
	Engagement.	
	Test a hypothesis and make predictions.	
	Discuss the results from their experiments.	

	Sharing ideas-Communication.		
	Interacting with other classmates.		
	Leadership/decision making/trust-building.		
	Assisting/praising/supporting/encouraging.		
	Each group member is held accountable.		
	An assessment of how groups are functioning to achieve a goal.		
	Each group member depends on each other to accomplish a target.		
	Applying (science / math) to real world applications.		
C. **Learning Strategy** (group/ individual Tasks/ arrangement**	Working individually.		
	Working in pairs.		
	Working in small groups.		
	Grouping arrangements were appropriate for the activity goals.		
	Individuals in the same group have different roles to complete one task.		
E. Cooperative Learning Elements	Positive Interdependence.		
	Face-to-Face Interaction.		
	Individual Accountability.		
	Social Skills.		
	Group Processing.		

Science: 1st Period

12 - 11 - 2014   Science   Gr 9

Cooperative Learning Models & techniques on
        measuring in the kitchen

① Think
        - encouraging individual participation.
        - promoting critical thinking.
        - articulate communication in the classroom.

② Positive Interdependence
        - work as a group
        - each one has a responsibility
        - active listening
        - working face to face
        - Having a shared common purpose

Measuring in the kitchen

1 - explanation about how to measure liquid & dry
        ingredients.
2 - liquids (milk, oil, honey & water)
        dry items (flour, white & brown sugar, chocolate chip,
                baking powder & rice)
        kitchen math worksheet (how many ounce in a cup?)
        Measure out a recipe for chocolate chip cookies
        create a recipe using measurment
3 Student will make a batch of cookies.

- Small groups
- Team work
- Individual Accountability
- Group accountibility

* using cooperative learning in measurment
Lecturing for 5 min
{ - ingredients , time , tempreture
chemical reaction & chemistry reaction
Explanation about the material

* Divide the students into stations in order
to make chocolate chip as a result

* each team has different section of measuring
2// sections for dry ingredients & 2// sections
for liquid ingredients.

* Some notes about the students' behavior &
following the instructions in the worksheet.
* Diffrent instrctions for each 2 groups

* Final products
~~~~~~

Measurment Part 2 for

liquid ingredients

Measurment Part 2 ⟶ liquid ingredients

* Some notes about measuring liquid ingredients
   by using different equipment

* good team work ⟶ following the instructions
   in the worksheet.

         Final product.

Last The teacher asked the students to write
      a paragraph about what did they learned
      today?   individually

* The teacher asked each group to discuss
   actions that help & hurt their interactions.

Lab session   Gr 9   Science
                                   9-11-2014

* Write the objective & the high expectation.
* Divide students into four groups & provide
  the with materials.
    (Coke, orange soda, grape Juice)

The question : Which of these has the higher
                sugar content ?

    How to measure this if there is no lable on it?

* The teacher asks the students to make
  a prediction from lower sugar content to higher
  sugar content. ⟶ (write it down)

Density

* The teacher asks the students to read the
  instructions in the worksheet then start
  working.

* water ⟶ 0% sugar
* 5%, 10%, 15%, 20% (cups with different colors)

Technique : How to use a pipette ?

* use a beaker of 100 ml on scale.
* use the pipette to draw up 10 ml

Sugar conc.   mass (g)

0%   9.98   Gatorade 10.25
5%   10.15   orange Soda 10.50
10%   10.34   coke 11.5% 10.42
15%   10.61   grape juice 10.64
20%   10.78

* Students wearing goggles, they add different
  liquids to the beaker very carefully.

* drop some Gatorade (yellow liquid)
*   orange soda

$$355 \text{ ml} \times \frac{1.042 \text{ g solution}}{1 \text{ ml}} \times \frac{11.5 \text{ g sugar}}{100 \text{ g solution}} = 42 \text{ g} \quad 39 \text{ g}$$

linking density to sugar concentration

* Write positive & negative points about
  today's activity.

12-11-2014   Math
                          Divergent Questioning

Objectives)8

* Multiply BINOMIALS using an area diagram to model
    the distributive property.
* Review simplifying expressions
         multiply + adding terms.

                        Think - Pair - Share
- Disks arranged in pairs

- The teacher asked the students to take out their H.w.
- Take a look at the problem on the board

         X + 3   Y + 7
   X ☐   Y ☐

- Think how to solve the problem based on what they
    learned yesterday.
- Remind them with the class rules.
- Think time
                   Think - Pair - Share

- Possible answer ──→ Teacher
     yes or No
                      why?

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$x + 3$ $y + 7$

x | x^2 | $3x$ | y | |

$X \cdot X = X^2$

- Why is it called X^2 ———→ Teacher
- Does it simplized a kind of shape.

1 $X \cdot X = X^2$ $3X = 3X$
2 $X \cdot 3 = 3X$ $X \cdot X \cdot X = X^3$

Teacher ——→ Can I combine these two terms ($X^2, 3X$)?
Student ——→ Unalike   ——→ guessing

Teacher ——→ implementing ideas
  T ——→ distributes worksheets, assigned time (15 min)
          to solve the questions individually
  T ——→ is monitering students, discussing the questions
          with some of them
  T ——→ asked the students to check their results from the board.
  T ——→ asked for a reflection using the same objectives.
  T ——→ aske (why I am learning that?)
  T ——→ p.3 for thm
  T ——→ Discussing some students' reflections they
          wrote in the same period
        - Build the power we learned yesterday
  T ——→ gave some notes and instructions for
          further success.

* great beginning idea
* v. good point (why we are learning this?)
* Outstanding behavior
* not enough thinking — They were board
  better to put them in a group of (4)
  They should think together

Think time ⟶ waiting time to think about
                the question. (great idea)

* Lack of evidence of competetions.

Divergent Question : A question with multiple acceptable
                answers.

* Lack of engagment (groups, competetions,
                        games, responsibility

* No individuall
* No sage on the stage - be the guide on the side.

* Lack of students-center

Math: 2nd Period

9-11-2014   Math

* Some class rules

Objectives : * Create function tables that represent
                  quadratic + cubic patterns.

         * graph data from function tables.

* Teacher asked the students to be team in ④
   in a limited time.

Linear   * The teacher is challenging his
m + 2   students to calculate & compare
                             the cost of different cell phone
                             plans using function tables & graphs

M/T	C
0	2 0+2
1	
2	
3	

Integrating skills

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T ⟶ is helping some groups & checking other groups
T ⟶ is checking the timer

T ⟶ assign a task for the students in
       a specific time

* Behavior is not good   sometimes

T ⟶ A new question   plan B

T ⟶ explain the H.W

T ⟶ Some nots & praising
       about students'
       bad behavior

~~~~~~~~~
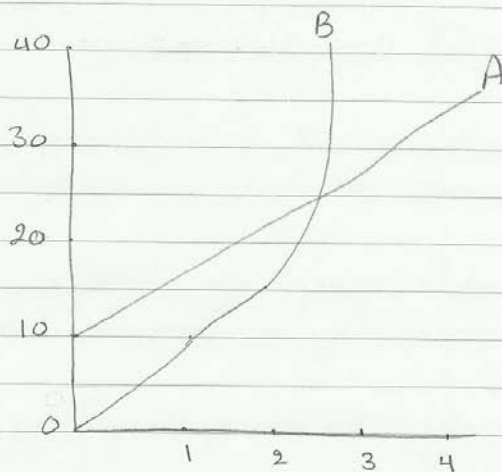
✓ * pedagog delivered
  * Confusion at the begining
✓ * Connect the lesson to the real life
✓ * challenging lesson
  x Work on group dynamic
  * Be more strict
  * Not all students were engaged
✓ * Ask many questions   (good challenging)
✓ * Summary & better behavior at the end
  * Lack of motivation

An Exploratory Analysis on the Influence of Organizational Climate on Employee's Job Satisfaction: The Case of a Private Local University in Abu Dhabi

Nessrin Shaya
The British University in Dubai

Dr. Rawan Abu Khait
Al Hosn University, Abu Dhabi

Abstract

This paper offers an empirical investigation on the nature of employee job satisfaction and the possible influence of organizational climate in a private higher education institution in UAE. Data was collected through administering questionnaires to a sample of 129 employees of a private local higher education institution in Abu Dhabi. The independent variable organizational climate was measured by 19 items, categorized under 6 factors: task characteristics, team orientation, leadership style, innovation, rewards and recognition and psychological career contract. The dependent variable job satisfaction was measured through a scale comprising 5 factors: pay; promotion; supervisory style; co-workers relationship and job itself. Results lead to the discount of the psychological career contract factor, whereas the other five factors showed to be significant components of organizational climate, having significant moderate individual but strong global impact on job satisfaction. The study brought fourth an important finding, if managers strive to empower their employees, generate substantive task characteristics and provide efficient leadership style and recognition and rewards system, a healthy organizational climate will disseminate, that will in return increase the employee's job satisfaction levels.

Introduction

The 21st century marked severe challenges and difficulties facing organizations, that are not unique to a particular industry or organization, regardless size and structure (i.e. the influence of globalization, security-related issues, the revolution in the information technology, etc.) (Castro & Martins 2010). Looking at the organization itself the "the body of a successful organism behaves as a whole system" (Kretiman & Morrman 1997), where the wise body would not place its parts in conflict with each other, rather the appropriate specialization of different parts, operating in harmony is the key for the organization survival. Therefore, organizations should acknowledge the importance of the human capital to thrive, compete and face the challenges and difficulties imposed by the current era. The people in the organization are the essential source of intelligence, flexibility and responsiveness, and hence supportive climate, preserving their cooperative endeavors, should be created. Due to these reasons and more organizational climate and job satisfaction continues to capture the attention of researchers and managers, due to their strong influence on the success of the organizations. Researchers have long focused on improving the work climate, as means of increasing job satisfaction (Jyoti 2013). It is reported that "if jobs or work environment are developed to provide a more desirable work environment, an increase in job satisfaction will result" (p. 66). And, in return "satisfied and full-energy personnel are the most important source of organization" (Dizagh et al. 2012). Job performance and efficiency in getting the work done will reflect the level of satisfaction of that; hence, organizational climate and job satisfaction are critical factors to improve effectiveness.

Through a case study approach, this study seeks to better understand the relationship between work environment and satisfaction in the higher education sector in UAE. It is believed that this paper measures for the first time in UAE, the impact of organizational climate on job satisfaction in the higher education sector, specifically, in a private locale higher education institution in UAE. It identifies and tests the major factors that are assumed to be affecting the institution's work environment, and in return predicting the employee's job satisfaction. The objectives of the study are as follows:

1. To explore whether there is a global relationship existing between the work environment and job satisfaction.

2. To investigate the kind of relationship existing between individual organizational climate components and job satisfaction

3. To investigate the relationship between organizational work environment and its components.

4. To add to the body knowledge the factors contributing to work environment and job satisfaction.

Finally, an additional objective is to generate recommendations, for local use, by the institution under study, on the satisfaction levels of its academic and administrative staff (Appendix B).

Literature Review

Job Satisfaction

Several definitions were developed in literature describing the concept of job satisfaction. Aydogdy & Asikgil (2011) defined it as a form of attitudes that the

individual develops about his/her job. Cranny et al. (1992) provided another definition, "employee's affective reasons to a job based upon comparing outcomes with actual outcomes" (p. 30). However, attitude theorists have long distinguished the affective factors comprising attitudes from those that are cognitive in nature, implying that "similar distinctions have been made in the job satisfaction realm" (Schleicher et al. 2004, p. 166). The affective component represents the individual's general positive or negative feelings concerning the situation, and the cognitive component is made up from the beliefs and thoughts relative to the particular situations.

"Do people generally like their job?" (Greenberg 1996, p. 144), what makes people satisfied?. Vuroom (1964), Locke (1976) and Khaleque (1984) (cited in Davar & Bala 2012, p. 290) ascertain that employee's job satisfaction affects the organizations "productivity, efficiency and employee relations", reflecting significant consequences on employee withdrawals under "voluntary turnover and absenteeism" (1996, p. 152). Team leaders and managers are highly concerned with work behaviors and attitudes of employees, as they are relatively very costly (p. 147), due to correlations with increased quality of services and operational success. From the employee's standpoint, positive attitudes towards the job will impact health and well being (Davar & Bala 2007) that will reflect on better job performance (Judge et al. 2001).

Organizational Climate

Organizational climate, or work environment, is generally defined as "the psychological climate of an organization" (Henry & William 1975, p. 19). In 1958, Aygris (cited in Henry & Williams 1975) brought the first comprehensive definition of organizational climate, where he defined climate "in terms of formal organizational

policies, employee needs, values, and personalities" (cited in Kondu 2007, p. 101).

Accordingly, the initial framework for organizational climate was then introduced for

the first time in 1960 with McGregor and Forehand and Gilmer in 1964 and other

researchers (cited in Hennery & William 1975; Kundu 2007). Among his pioneering

work on managerial climate in the field of management, McGregor indicated that

climate could be "determined by the managerial assumptions and the relationship

between managers and their subordinates" (2007, p.100). There has been a strong

interest in studying organizational climate among researchers, as its consequences

strongly influence other variables as job satisfaction, job performance, quality of

interaction and supervisory behaviour (Judge et al. 2001; Jyoti 2013). Therefore, it is

hypothesized that:

H1: There is relation of statistical significance between the perceived *Organizational Climate* and *Job Satisfaction*

   Organizational Climate Factors:

Organizational climate in literature concentrated on the lived experiences of

employees and perceived organizational policies, processes, procedures and systems

(Kaya et al. 2010; Sparrow and Gatson 1996). A number of researchers identified

particular factors in the work environment that seem to be contributing to the climate.

Jyoti (2013) highlighted four essential dimensions that many researchers in the 1970's

agreed on their presence: "individual autonomy, structure, reward, consideration,

warmth and support" (p. 69). Litwin and Stringer (1968) added another four

dimensions, namely conflict, identity, risk and structure, and accordingly constructed

their questionnaire that contained 50 items (cited in Henry & Williams 1975).

Muchinksy (1976) ran the factor analysis test on this questionnaire, and concluded

that 6 main components derive the organizational climate factor: "interpersonal meliu, standards, general affective tone toward management, organization structure and procedures, responsibility and organizational identification" (cited in Jyoti 2013, p. 69).

This study identifies six organizational climate factors were investigated: (i) task characteristics;(ii) team orientation; (iii) superior-subordinate relationship; (iv) leadership style; (v) employee empowerment and (vi) recognition and rewards.

1. Task characteristics

Task characteristics are features that are related to every particular element of the job, and can be eventually called the "work package" (Castro & Martins 2010, p. 12). Job descriptions help in specifying what the company expects and what type of employee characteristics are essential to be successful. They are "documents containing job title, reporting relationships, summary of responsibilities, job span (e.g., budget, staff), primary accountabilities and responsibilities, decision-making authority, and hiring requirements (e.g. knowledge, skills, abilities, certifications, degrees)" (Stylbel 2010, p 105). On the employee level, job descriptions offer a clear criteria about work related issues which could develop worker performance and satisfaction. Mader-Clark (2008) illustrated that job descriptions communicate employee expectations and allow the employee to know how to excel in their work. They enhance employee morale, measure future performance, and improve communication between employees. Scores on this dimension measure the opportunity the person is given to use his/her skills abilities, to undergo challenging tasks and to develop personal growth.

Therefore, the second hypothesis, would be:

H1a: There is a relation of statistical significance between *Task Characteristics* and *Job Satisfaction.*

2. Team Orientation

Teamwork became a main concern for many companies, and "self-managing" (p.29) teams are frequently seen as the mean of teamwork development programs (Levi & Slem 1995). Professionals are facing difficulty to perform their assigned tasks with "fewer employees, at faster speeds and with more quality and customer responsiveness creates the need for team work" (1995, p. 29). Therefore, it is important to develop worker skills that enable them to work as a team, especially when the company policy focuses on employing fewer workers and performing tasks at a high level of quality. Understanding some of the distinctions among teams is critical as they come in a variety of types. Of the most documented is the basic differences between a "work group and a fully functioning team" (p. 30). A work group includes a set of individuals who work together to accomplish some task. "In a work group, the members share a common goal and are coordinated by a leader, but their performance is a function of individual effort which is evaluated by individual performance evaluations" (p. 30). In contrast, a team is a small work group with complementary skills who are devoted to a common purpose, objectives and approach, for which they hold themselves accountable.

Therefore, scores on this dimension measure the extent to which the environment shows a friendly atmosphere, teamwork and understanding among the company employees. The third proposed hypothesis is:

H1b: There is a relation of statistical significance between *Team Orientation* and *Job Satisfaction.*

3. Leadership Style

Burns (1978) described transactional leadership "as a motivating followers primarily through contingent-reward-based exchanges" (cited in Jung & Avalio 1999, p. 208). A transactional leader's main concerns are setting goals, illustrating the relationship between performance and rewards, and offering constructive feedback to keep employees on task (Bass 1985).

Leadership behavior based on contingent reward can positively influence worker satisfaction and performance (1999).

Scores on this dimension indicate whether individuals are capable of approaching their supervisors with frankness and openness, the supervisor provides recognition whenever a job is well done and possess flexible attitude whenever needed.

Leaders are presumed to have a positive impact on employees' level of motivation as well as assisting employees to achieve their goals by enhancing their self belief and raising their self confidence (1999). The third suggested hypothesis is:

H1c: There is a relation of statistical significance between *Leadership Style* and *Job Satisfaction.*

4. Employee Empowerment

The attention to the term empowerment has grown in the literature. However, a "lack of a theoretically derived measures of psychological empowerment in a work context has deterred measure of psychological empowerment" (Spreitzer 1995, p. 1443), and previous efforts have not been made to measure psychological empowerment within a work context (1995).

Scores on this dimension reflect the degree to which the individuals that are affected by the new decisions actively take part in the process of decision making and their suggestions are adequately elicited. Therefore, it could be hypothesized that:

H1d: There is a relation of statistical significance between *Employee Empowerment* and *Job Satisfaction.*

5. Recognition and Rewards

Rewards and recognition for good performance are considered to be "symbolic rewards, satisfying socioemotional needs" (Chen et al. 1999, p. 49). Some of these rewards have certain monetary value. Rewards such as a pay raise or stock options, are rewards that are related to cash values (Chen et al. 2004).

"Appraisal information has been used for making organizational decisions in areas such as personnel layoffs, promotions, and transfers; development and evaluation of training programs; wage and salary determination; and as criteria for selection procedure validation studies" (Field & Holley 1982, p 392). Scores on this dimension measure whether promotions and rewards are issued according to high performance levels. Accordingly, the fifth hypothesis is formed as:

H1e: There is relation of statistical significance between *Rewards and Recognition* and *Job Satisfaction.*

6. Psychological Career Contract

According to Anderson and Scalk (1998), employees tend to develop positive and long lasting "psychological-bond" (p. 637) with their organizations, based on a sequence of expectations regarding what the organization is obliged to and should offer to them. If the employer fails to satisfy these expectations and obligation, strong emotional reactions (that are negative in most of the times) will be the result. "In the relationship between employer and employee, mutual obligations are the central issue. These mutual obligations are partly put on record in the written formal contract of employment, but are for the most part implicit, covertly held and only infrequently discussed" (p. 637).

Scores on this dimension reflect the extent to which the organization has met the individual's expectations prior to joining, in terms of promotion opportunities, personal growth and other personal attributes. It could be hypothesized that:

H1f: There is a relation of statistical significance between *Psychological Career Contract* and *Job Satisfaction.*

Finally,

H2: There is a relation of statistical significance between *Organizational Climate* and its components.

Accordingly, the following model in Figure 1 was developed to indicate the relationships investigated in this research:
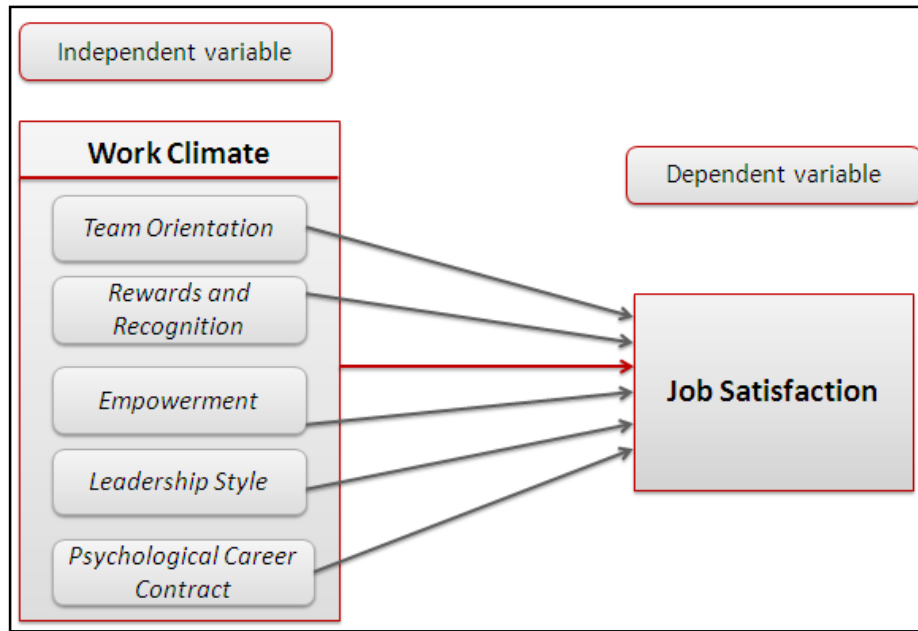
Figure 1: Proposed Study Model

Methodology

Research design

An in-depth analysis of the literature was conducted, focusing on studies and theories related to organizational work environment and job satisfaction, indicating that there is a lack of academic studies on the higher educational sector, specifically on organizational climate versus job contentment, in the United Arab Emirates. Addressing this gap in the literature led to the development of the study model and the research understudy. A quantitative approach was adopted through implementing a survey design, administering questionnaires as the main research tool for collecting data. The survey was adapted from Suliman (2001) and served two main purposes:

1. Testing the main hypotheses aiming at identifying staff opinions on the importance of the study variables in relation to their experiences.

2. Determining the job satisfaction levels and the perceived work environment of the academic and administrative staff in the university towards their institution. These results were considered to be critical and were used for local purposes by the management.

Population and sampling

This research is designed to be part of a larger study that will track the relationship between the perceived work environment and job satisfaction in public, private local and foreign universities in UAE. Therefore, the focus was on a private local university, situated in Abu Dhabi, with 129 employees (82 academic and 47 administrative) and 1516 students. Accordingly, homogeneous sampling was employed. In this research the subjects shared a unique attribute which is the fact that they are either academic or administrative staff working for the private local university understudy. Special efforts were put forth to make sure that almost every working individual receives, and possibly, returns a copy of the questionnaire. 110 questionnaires were distributed and 72 were returned, implying 65% response rate.

Survey questionnaire

A structured questionnaire was developed to function as a quantitative instrument for the two study domains; organization climate and job satisfaction. The survey questions were designed in a comprehensive manner, so that even if the respondents were not familiar with the study topic, they could participate in the study. The survey was useful to this study because of the sensitivity of the information related to the subject. In addition, respondents were not expected to reply directly; but they were given time to think about their answers.

The main reason for the selection of this instrument was that the chosen study was theoretically applicable to the context and purpose of the study. Such relevance aided

the researcher to answer research questions examined in the research. The questionnaire consisted of three sections:

Section one

This section covered the demographical data and contained nine questions on: organizational level, age, gender, marital status, number of years spent in the current organization, number of years spent in the current position, education, job status and nationality.

Section Two

This section measured the independent variable organizational climate as a multi-dimensional facet consisting from six factors and in return 19 items as follows. The first three factors are *Task Characteristics*, *Team Orientation* and *Leadership Style* each measured through 3 items. The forth factor is *Innovation* comprising 4 items, and finally the fifth and sixth factors are *Rewards and Recognition* and *Psychological Career Contract*, made up from 3 and 4 items respectively.

Section Three

The third section consisted from 16 items testing the employee's job satisfaction level, as a uni-dimensional dependant variable.

Likert Scale

Likert scales are considered to be the most commonly used variation of the summated rating scale (Blumberg et al. 2008). The survey questionnaire measured all of the 37 questions on scales of: 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, and 5 = Strongly Agree.

Piloting

The aim of conducting a pilot study in this research is to pre-test the survey questionnaire designed through the procedure described above. The survey questionnaire was distributed to 13 respondents at a private university in Abu Dhabi. Valuable feedback was gathered from these completed surveys, with comments regarding content and wording. Participants were informed that they were participating in a pilot study, and also that the information provided by them would not be included in the research analysis, but rather help to inform the final version of the survey. Eventually, the questionnaire was revised and necessary editing took place.

Data Analysis

The Statistical Package for Social sciences (SPSS v. 20) was used to analyze data, run tests and derive results.

1. Descriptive Statistics

Table 1 indicates that 42% of the responders were assistant, associate or full professors, instructors, 39% were instructors and teaching assistants and 39% were administrative staff. Therefore, the academic staff contributed in almost 62% of the responses to the administered questionnaire. Around 80% of the participants have been working in this organization between 2 and 6 years, knowing that this university has been established 9 years ago in 2005, 50% are at the general staff level whereas the rest are either middle (26%) or senior management (15%). The females' responses rate are lower compared to the males' (41:31), and the responders were all expats, as 100% of the employees in this institution are non-locals. A graphical summary (histogram) is presented as Appendix A.

	Organizational Level	Age	Gender	Marital Status	Job Tenure	Organizational tenure	Education	Job Status	Nationality
Admin Staff	28 38.9%								
Instructor	14 19.4%								
Professor	30 41.7%								
Less than 25		5 6.9%							
25-35		24 33.3%							
36-46		20 27.8%							
47-57		15 20.8%							
58 or above		5 6.9%							
Male			41 56.9%						
Female			31 43.1%						
Married				51 70.8%					
Unmarried				20 27.8%					
One year or less					5 6.9%				
2 – 3					17 23.6%				
4 – 5					19 26.4%				
5 – 6					21 29.2%				
6 years or above					10 13.9%				
One year or less						9 12.5%			
2 – 7						36 50.0%			
8 – 13						15 20.8%			
14 – 19						7			
20 years or above						7			

	9.7%
	4
	5.6%
High school	3
	4.2%
Bachelor Degree	20
	27.8%
	17
Masters degree	*23.6%*
	31
PhD or above	*43.1%*
Senior Management	11
	15.3%
Middle Management	19
	26.4%
Staff	36
	50.0%
Non UAE National	72
	100.0%

Table 1: Demographical data of respondents

2. Organizational Climate Factor Analysis:

Factor analysis is a technique that aims to reduce variables, through identifying the variables that appear to be clustering in a significant way. Therefore, the 20 items of Organizational Climate were first factor analyzed, with the minimal loading cutoff score considered to be ± 0.5 (Suliman 2001).

Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
OC10	.71				
OC11	.72				
OC12	.70				
OC13	.69				
OC7		.81			
OC8		.88			
OC9		.79			
OC14			.82		
OC16			.73		
OC4				.80	
OC5				.75	
OC17					.73
OC18					.67

Table 2: Results of Factor Analysis Test

Table 2 shows that 5 out of 6 factors were successfully loaded, leading to the elimination of factor 6 that is Psychological Career Contract. The factors scored 0.69 and above on the varimax rotation. Whereas, items numbered 4 and 5 loaded under Factor 4 (Employee Empowerment), the 7th, 8th and 9th item loaded under Factor 2 (Team Orientation). Items numbered 10, 11, 12 and 13 loaded together on Factor 1 (Task Characteristics). Finally, two items (numbered 14 and 16) loaded under Factor 3 (Leadership Style) and another two items (numbered 17 and 18) loaded under Factor 5 (Recognition and Rewards). Eventually, 7 items (numbered 1, 2, 3, 6, 15, 19 and 20) were dropped as a result of factor analysis.

Knowing that the determinant of the R-matrix "should be greater than 0.00001" (Field 2005, p. 2), the determinant in this study was found to be .004, that is larger than the necessary value. The value of KMO is .733 meaning that factor analysis results in reliable factors (2005), knowing that values between 0.7 and 0.8 are considered to be "good" results (Keiser 1974 in Field 2005). The Bartlett test appears to be highly significant with value .000 (< 0.05), and accordingly factor analysis yielded reliable findings.

3. Reliability Test

The following section will address reliability, as it is used to test the reliability of the Organizational Climate and Job Satisfaction scales as global variables, following the factor analysis test. It is to be noted however that the minimal alpha value that is to be accepted in this study is 0.6 (Suliman 2001).

	Cronbach's Alpha	Number of Items
Global Organizational Climate	.83	13
Global Factor Task Characteristics	.82	4
Global Factor Team Orientation	.80	3
Global Factor Leadership Style	.60	2
Global Factor Employee Empowerment	.70	3
Global Factor Recognition and Rewards	.80	2
Global Job Satisfaction	.80	17
Overall	.89	30

Table 3: Results of Reliability Test

Following factor analysis, 7 items were deleted and one global factor was dropped (Psychological Career Contract). Table 3 shows that the Cronbach's alpha values for the global organizational climate, job satisfaction and over all study were .83, .80 and .89 respectively. Moreover, the lowest alpha value among the global factors of organizational climate is .60, which is considered to be reliable. Therefore, the above table indicates that the global scales and their factors are reliable.

4. The Spearman Correlation Test

In order to identify the relationships between the independent and dependant variables, and to further explore the degree of significance, the Pearson Correlation Coefficient test was conducted.

Table 4 indicates that there is a positive correlation between the dependant variable Job Satisfaction and the independent variables Task Characteristics, Team Orientation, Leadership Style, Employee Empowerment and Recognition and

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Rewards. The corresponding correlations coefficients between the dependent variable and each of the above independent variables are .445, .501, .43, .509 and .544 respectively. Moreover, the relations are highly significant at the .01 level, where the corresponding significant value for each is .000. These findings confirm the hypotheses H1a, H1b, H1c, H1d and H1e.

Furthermore, there appear to be a strong positive correlation between the Organizational Climate and Job Satisfaction as global factors, where r = .724. This is relationship is highly significant at the .01 level (significant value accounted for .000), confirming the main hypothesis H1.

The five factors comprising the Organizational climate, Task Characteristics, Team Orientation, Leadership Style, Employee Empowerment and Recognition and Rewards, are moderately to strongly positively correlated with organizational climate as a global factor. The corresponding correlation coefficients are .818, .604, .599, .462 and .783 respectively, and are also highly significant at the .01 level. The moderate correlation occurred between Employee Empowerment and Organizational Climate factors. Therefore, H2 is confirmed.

	Global. JobSatisfaction	TaskCharacteristics	TeamOrientation	Leadership Style	Employee Empowerment	Recognition Rewards	Global. Organizational Climate
Global.JobSatisfaction	1						
TaskCharacteristics	.445**	1					
TeamOrientation	.501**	.323**	1				
LeadershipStyle	.430**	.367**	.070	1			
EmployeeEmpowermer	.509**	.241	.212	.125	1		
RecognitionRewards	.544**	.398**	.385**	.482**	.285*	1	
Global. OrganizationalClimate	.724**	.818**	.604**	.599**	.462**	.783**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4: Correlation Test Results

Findings and Discussion

1. Regression Test

To further investigate and discuss the above derived links, the regression test has been conducted on each relationship.

H1: There is relation of statistical significance between the perceived *Organizational Climate* and *Job Satisfaction*

Table 4 implies that r = .724 that is highly significant where ρ = .000. Therefore, if managers and directors strive to enhance the organizational climate, the employee's

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724[a]	.524	.516	5.72717

a. Predictors: (Constant), Global.OrganizationalClimate

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2097.223	1	2097.223	63.939	.000[b]
	Residual	1902.427	58	32.800		
	Total	3999.650	59			

a. Dependent Variable: Global.JobSatisfaction
b. Predictors: (Constant), Global.OrganizationalClimate

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	24.476	4.116		5.947	.000
	Global.OrganizationalClimate	.767	.096	.724	7.996	.000

a. Dependent Variable: Global.JobSatisfaction

Table 5a: The Linear Regression Test between Organizational Climate and Job Satisfaction

Coefficients[a]

Model	Beta	t	Sig.
TaskCharacteristics	.102	.972	.335
TeamOrientation	.374	3.923	.000
LeadershipStyle	.297	2.953	.005
EmployeeEmpowerment	.362	4.083	.000
RecognitionRewards	.099	.895	.375

a. Dependent Variable: Global.JobSatisfaction

Table 5b: Beta weights of the components of Organizational climate

job satisfaction will increase. Moreover, Table 5a shows that the value of R^2 is .524, implying that organizational climate can account for 52.4% of the variation in job satisfaction levels among employees. The F-ratio is 63.99 that is significant at the .01 level where $\rho = 0.00$, indicating that there is less than 0.1% chance that such a value of F-ratio would occur, if a null hypothesis (H0 instead of H1) was true. The above table also shows that the t value is 7.99 with a significance value accounting for .000. Therefore, it could be concluded that, if the organizational level in an institution is considered to be the poorest (close to zero) "the probability of these t-values or larger occurring" (Field 2005, p. 208) "is less than .001" (p. 208). In summary, organizational climate makes a significant contribution to predicting job satisfaction. However the Beta weights in Table 5b indicates the contribution of each factor to the 52.5% variation that is explained by Organizational Climate as a global factor. Team Orientation and Employee Empowerment explain 37.4% and 36.2%, respectively, which is significant at .000 level. However, Leadership Style accounts for 29.7% of job satisfaction and significant at .05 level. Task Characteristics and Recognition and Rewards appear to be insignificant.

The data obtained from the survey analysis supports the relationship between the organizational work environment and job satisfaction, confirming H1. These results match the findings of other researchers who investigated in this field. For instance, Karasick (1973) examined the impact of organizational climate on job performance and satisfaction, and the influence of interactions between climate and individual needs on performance and satisfaction. Results indicated that climate was strongly related to subunit performance and to the individual job satisfaction. However, limited

verification was found for climate and individual needs interacting to influence performance and satisfaction.

H1a: There is a relation of statistical significance between *Task Characteristics* and *Job Satisfaction*.

The correlation test results in Table 4 informs on a highly significant relationship between the two variables, where r = .445 and ρ = .000, confirming H1a. The better job characteristics the employee is assigned with, the more satisfied he/she is. In addition, Table 6 shows that the coefficient of determination R^2 is .198 implying that Task Characteristics explain almost 20% of the variation in Job Satisfaction, while

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.445[a]	.198	.185	7.37523

a. Predictors: (Constant), TaskCharacteristics

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	845.237	1	845.237	15.539	.000[b]
	Residual	3426.825	63	54.394		
	Total	4272.062	64			

a. Dependent Variable: Global.JobSatisfaction
b. Predictors: (Constant). TaskCharacteristics

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	43.488	3.487		12.470	.000
	TaskCharacteristics	1.038	.263	.445	3.942	.000

a. Dependent Variable: Global.JobSatisfaction

Table 6: The Linear Regression Test between Task Characteristics and Job Satisfaction

80% of variability is accounted by other factors. The F-ratio and t-statistic are 15.539 and 3.942, respectively, and are highly significant (ρ = .000). Therefore, Task Characteristics is considered to be a strong contributor towards predicting Job satisfaction.

Further support was found in the literature by a number of researchers, such as Hackman and Lawler (1971). They illustrated that job characteristics such as the amount of variety, responsibility, and interpersonal relations afforded by a job, appeared to be correlated to employee attitudes and behavior. In fact, "changes in job characteristics introduced by behavioral scientists are intended to affect the work content and the relationships of employees to their jobs and to each other" (Rousseau 1977, p. 18).

H1b: There is a relation of statistical significance between *Team Orientation* and *Job Satisfaction.*

The Pearson correlation coefficients, presented in Table 4, imply a moderate but

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.501[a]	.251	.239	7.15510

a. Predictors: (Constant), TeamOrientation

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1098.946	1	1098.946	21.466	.000[b]
	Residual	3276.508	64	51.195		
	Total	4375.455	65			

a. Dependent Variable: Global.JobSatisfaction

b. Predictors: (Constant), TeamOrientation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	37.237	4.336		8.587	.000
	TeamOrientation	1.680	.363	.501	4.633	.000

a. Dependent Variable: Global.JobSatisfaction

Table 7: The Linear Regression Test between Team Orientation and Job Satisfaction

highly significant relationship between Team Orientation and Job Satisfaction, where r = .501 and ρ = .000, validating H1b. Therefore, the higher the team spirit among employees, the higher the job satisfaction levels are. Moreover, the ANOVA results in Table 7 shows that R^2 is .251, the F-ratio and t-statistic are 21.46 and 4.63, respectively, and are both highly significant at the .01 level. Team Orientation is

considered to be a significant contributor in predicting Job satisfaction, where it explains 25.1% of its variation.

Literature supports these results, where Sarwat et al. (2011) tested the influence of teamwork spirit on job satisfaction and got similar results. Levi and Slem (1995) emphasized the fact that professionals are pressured to perform their assigned tasks with "fewer employees, at faster speeds and with more quality and customer responsiveness creates the need for teamwork" (p. 29).

H1c: There is a relation of statistical significance between *Leadership Style* and *Job Satisfaction*.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.430[a]	.185	.172	7.51964

a. Predictors: (Constant), LeadershipStyle

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	809.415	1	809.415	14.315	.000[b]
	Residual	3562.339	63	56.545		
	Total	4371.754	64			

a. Dependent Variable: Global.JobSatisfaction
b. Predictors: (Constant), LeadershipStyle

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	48.498	2.418		20.057	.000
	LeadershipStyle	1.892	.500	.430	3.783	.000

a. Dependent Variable: Global.JobSatisfaction

Table 8: The Linear Regression Test between Leadership Style and Job Satisfaction

Table 4 indicates that r = .400 and ρ = .000, implying a significant relationship between the two variables, confirming H1c. If directors or managers enhance their leadership styles, the job satisfaction levels among their employees will eventually

rise. Moreover, the ANOVA test results in Table 8 implies that this factor explains 18.5% of the variability in Jon Satisfaction, where $R^2 = .185$. The F-ratio is 14.13 and the t-statistic is 3.78, are both significant at the .01 level. Therefore, Leadership Style makes a significant contribution to predicting job satisfaction levels.

The findings are supported by further research. In 2004, a study was conducted in Isfahan University Hospitals, Iran, to depict the influence of managerial leadership styles and employee's job satisfaction (Rad & Yarmohammadian 2006). It was indicated that employees showed less satisfaction with salaries, benefits, work conditions, promotion and communication as satisfier factors and more satisfaction with factors linked to the nature of work, co-workers and supervision type factors. There was significant correlation ($\rho < .01$) between the use of effective leadership behaviors and workers and job satisfaction. Therefore, the relationship between leadership style and job satisfaction was tested and resulted in significant positive correlations.

H1d: There is a relation of statistical significance between *Employee Empowerment* and *Job Satisfaction*

There appeared to be a positive significant relationship between these two variables, manifested through Table 4, where r = .509 and $\rho = .000$, confirming H1d. Therefore, the more managers and chairpersons empower their staff, the higher their job satisfaction is. In addition, Table 9 indicates that $R^2 = .259$, the F-ratio is 20.98 and the t-statistic is 4.58, that are both significant at the .01 level where $\rho = .000$. Hence, Employee Empowerment is proved to be significantly contributing in 25.9% of the variation in Job Satisfaction levels.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.509[a]	.259	.247	7.11958

a. Predictors: (Constant), EmployeeEmpowerment

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1063.681	1	1063.681	20.985	.000[b]
	Residual	3041.303	60	50.688		
	Total	4104.984	61			

a. Dependent Variable: Global.JobSatisfaction

b. Predictors: (Constant), EmployeeEmpowerment

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36.498	4.562		8.000	.000
	EmployeeEmpowerment	2.767	.604	.509	4.581	.000

a. Dependent Variable: Global.JobSatisfaction

Table 9: The Linear Regression Test between Employee Empowerment and Job Satisfaction

Researchers have long focused their studies on empowering management practices, including the delegation of decision making from the upper management to the lower levels and raising access to resources and information for employees at lower levels (Bowen and Lawler 1992).

Moreover, Spreitzer (1995) claimed that the "lack of a theoretically derived measures of psychological empowerment in a work context has deterred measure of psychological empowerment" (p. 1443). However, he indicated that some efforts were putforth to measure psychological empowerment within a work context.

H1e: There is relation of statistical significance between *Rewards and Recognition* and *Job Satisfaction*.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.544[a]	.295	.284	6.98718

a. Predictors: (Constant), RecognitionRewards

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1290.054	1	1290.054	26.424	.000[b]
	Residual	3075.700	63	48.821		
	Total	4365.754	64			

a. Dependent Variable: Global.JobSatisfaction

b. Predictors: (Constant), RecognitionRewards

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	44.683	2.523		17.713	.000
	RecognitionRewards	1.984	.386	.544	5.140	.000

a. Dependent Variable: Global.JobSatisfaction

Table 10: The Linear Regression Test between Recognition & Rewards and Job Satisfaction

There is positive correlation between Recognition & Rewards and Job Satisfaction, manifested though Table 4, where r = .544, that is significant at the .01 level, confirming H1e. Therefore, if organizations adopt an adequate recognition system that is supported with rewards, the job satisfaction levels among the employees will increase. Table 10 shows that this factor explains 29.5% of the variation in Job Satisfaction where R^2 = .295. The F-ratio and t-statistic are both highly significant (ρ = .000) and equals to 26.42 and 5.140 respectively. Accordingly, 29.5% of the variance in Job Satisfaction is explained by Recognition and Rewards.

Several studies in literature linked rewards and compensations to job satisfaction, emphasizing their direct impact on employee satisfaction and behavior.

In 2005, Tekleab, Bartol et al. conducted two related studies that examined the impact of rewards, particularly the financial type, on job satisfaction and concluded that pay will result in an increase in satisfaction.

In fact, the main purpose behind an effective recognition and reward program is to identify "a system to pay and communicate it to the employees so that they can link

their reward to their performance which ultimately leads to employee's job satisfaction" (Danish & Usman 2010, p. 160).

H2: There is a relation of statistical significance between *Organizational Climate* and its components.

There exist a strong, significant and positive correlation between Task Characteristics, Team Orientation, Leadership Style and Recognition & Rewards and Organizational Climate as a global factor, articulated in Table 4, confirming H2. The corresponding correlation coefficients are .818, .604, .599 and .783 respectively. However, there appear to be a moderate relationship with Employee Empowerment where r = .462. All these relationship are highly significant at the .01 level. Therefore, this study proved that these five factors are actual components of organizational climate, and once they are fulfilled, a positive work environment will result. Specifically, if managers strive to empower their employees, generate substantive task characteristics and provide efficient leadership style and recognition and rewards system, a healthy organizational climate will disseminate, that will in return increase the employee's job satisfaction levels.

Moreover, the Beta weights in Table 11 indicate that Task Characteristics explain 43.9% the variance in Organizational Climate, where as Team Orientation, Leadership Style, Employee Empowerment and Recognition and Rewards account for 31.4%, 24.8%, 19.5% and 27.1%. All these values are significant at .01 level.

These results confirm Suliman (2001) findings, where he expressed organizational climate in terms of task characteristics, involvement in decision making, superior-subordinate relationship and performance-reward relationship, and represented the base of this research.

Coefficients[a]			
Model	Beta	t	Sig.
TaskCharacteristics	.439	137901047.8	.000
TeamOrientation	.314	106257622.1	.000
LeadershipStyle	.248	79307376.06	.000
EmployeeEmpowerment	.195	70502883.72	.000
RecognitionRewards	.271	77730562.87	.000
a. Dependent Variable: Global.OrganizationalClimate			

Table 11: The Beta weights of the corresponding components of Organizational Climate

Recommendations for Practitioners

There are two key outcomes of this research. First, is to identify and gain further insight into the impact of work environment on job satisfaction in the education sector. Second, is to develop a model based on the literature on the components that are most likely to impact the organizational work environment and in return the job satisfaction. The following implications for industry and practices occur from these outcomes as follows:

- Gaining a deep insight into the consequences of creating a positive work environment and job satisfaction on the education sector.

- The developed model would help directors, managers and chairpersons in the educational sector to be aware of the factors that contribute to employee satisfaction and positive organizational work environment.

- Such insight may assist other educational institutions that are planning to induce a shift in their working environment.

- The outcome of implementing this model will enhance not only the university performance and satisfy the employees, but will also increase students' satisfaction, as they will receive better service.

- Most importantly, if the model is successfully implemented, positive outcomes would result that will in return help in the development of the country's economy, knowing that the education sector plays a major role in UAE economy.

Limitations of the Study

There are some limitations in the design of this study that are hindering the generalizations of the results. The first important element is the sample size, where 72 responders are considered to be low in number. The second is the fact that the academic staff outnumbers the administrative staff by 45%. Moreover, the academic staff in the educational institution understudy are subject for relatively better working conditions, in terms of working hours, benefits, vacation days, etc. Therefore, if the results show adequate levels of job satisfaction among the employees, this should not imply that the administrative staff exhibit similar satisfaction levels. The third element applies to the nature of the institution understudy, where it is considered to be private locale. Different results might emerge in foreign universities that apply more systematic educational, managerial and administrative mechanisms. Finally, and most importantly this survey was not administered to UAE nationals, since the university understudy staff are 100% non-nationals.

Recommendations for Future Research

This research has presented outcomes of high potential value for future research. The following areas have been recognized as important future extensions of this work:

- Extend the model to other universities in the education sector, specifically those that were not tested in the study.

- Test the final model in universities where the majority of academic and administrative staff are from the UAE nationality.

- Compare the outcomes of the tested model in public, private local and foreign universities in UAE.

- Assess the usefulness of the final study model on the university performance, employee satisfaction, student satisfaction and the country's economy.

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Appendix A: Demographical Data

Gender of responder

Age of responder

Marital Status

Nationality of responder

Organization Level

Highest Education Level completed

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No of years worked in current organization

- One year or less
- 2 - 3
- 4 - 5
- 5 - 6
- 6 years or above

No of years worked in the position or job

- One year or less
- 2 - 7
- 8 - 13
- 14 - 19
- 20 years or above
- Missing
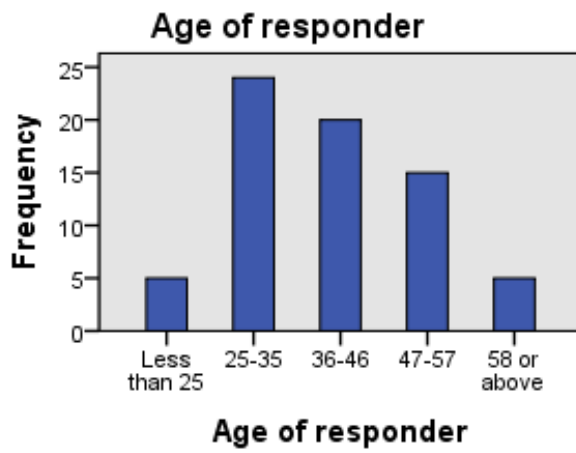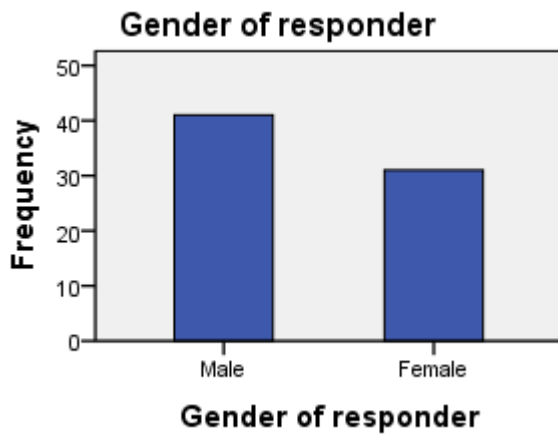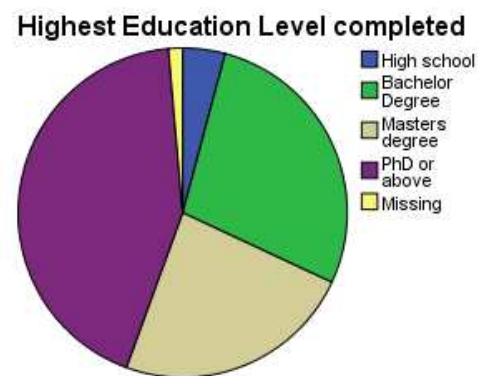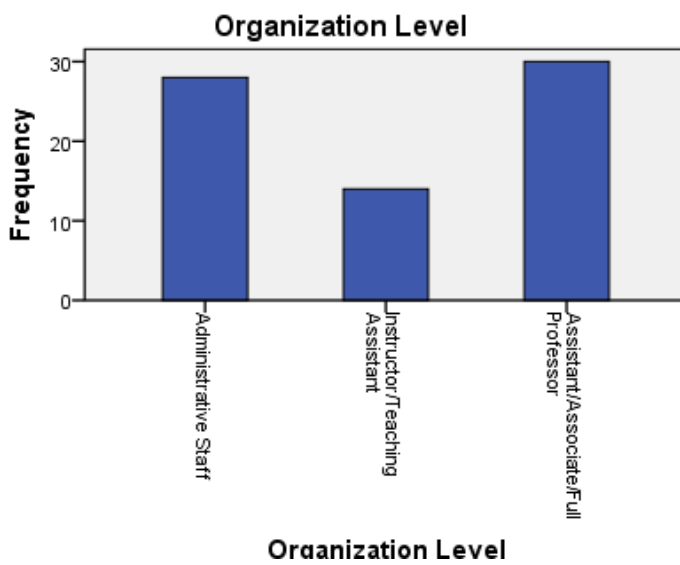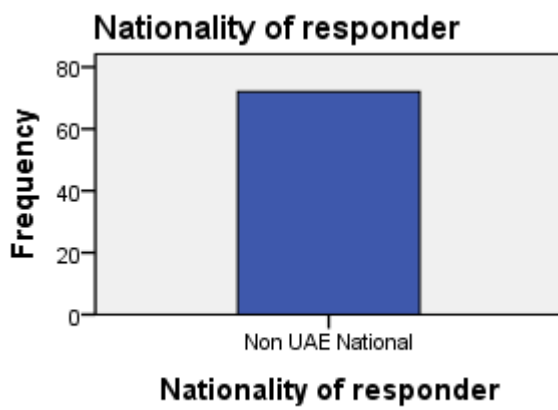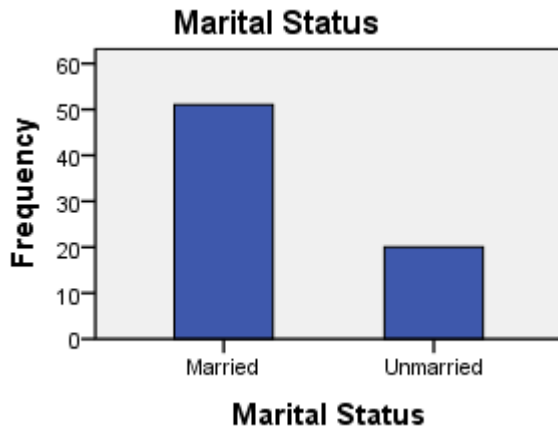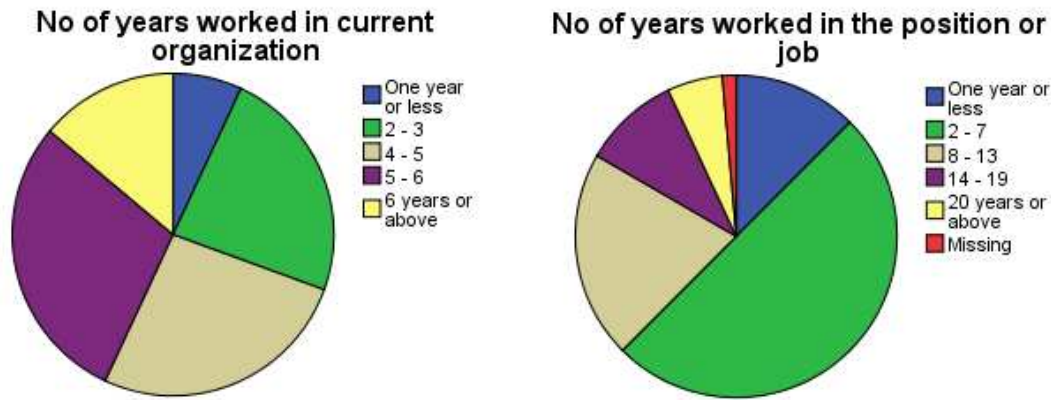
Appendix B: Organizational Climate and Job Satisfaction Results

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Item 1 Task Characteristics	2	9	5	44	12	72
There are opportunities to use my skills and abilities	2.8%	12.5%	6.9%	61.1%	16.7%	100.0%
Item 2 Task Characteristics	2	10	11	36	12	71
There is a chance to do challenging work	2.8%	14.1%	15.5%	50.7%	16.9%	100.0%
Item 3 Task Characteristics	5	16	11	32	7	71
There is a chance for personal growth	7.0%	22.5%	15.5%	45.1%	9.9%	100.0%
Item 1 Team Orientation	1	4	8	43	14	70
There is a friendly atmosphere among company employees	1.4%	5.7%	11.4%	61.4%	20.0%	100.0%
Item 2 Team Orientation	1	11	18	33	7	70
There is teamwork within the company	1.4%	15.7%	25.7%	47.1%	10.0%	100.0%
Item 3 Team Orientation	4	25	26	14	2	71
There seems to be less understanding among the employees	5.6%	35.2%	36.6%	19.7%	2.8%	100.0%
Item 1 Leadership Style	2	10	9	36	15	72
My supervisor gives recognition for work well done	2.8%	13.9%	12.5%	50.0%	20.8%	100.0%
Item 2 Leadership Style	1	4	7	41	18	71
My supervisor is flexible when needed	1.4%	5.6%	9.9%	57.7%	25.4%	100.0%
Item 3 Leadership Style	1	8	4	38	21	72
I am able to speak openly and honestly with my supervisor	1.4%	11.1%	5.6%	52.8%	29.2%	100.0%
Item 1 Employee Empowerment	6	19	18	24	4	71

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Employees suggestions are asked for when making decisions that will affect them	8.5%	26.8%	25.4%	33.8%	5.6%	100.0%
Item 2 Employee Empowerment	4	12	17	35	4	72
There is a chance to take part in deciding what the work methods, activities, and goals are	5.6%	16.7%	23.6%	48.6%	5.6%	100.0%
Item 3 Employee Empowerment	2	16	19	26	8	71
Important decisions are made by the employees closest to the action	2.8%	22.5%	26.8%	36.6%	11.3%	100.0%
Item 4 Employee Empowerment	7	15	15	26	7	70
I take part in making the decisions that affect my job	10.0%	21.4%	21.4%	37.1%	10.0%	100.0%
Item 1 Recognition & Rewards	26	23	9	9	3	70
Pay increases are related to how well I do the job	37.1%	32.9%	12.9%	12.9%	4.3%	100.0%
Item 2 Recognition & Rewards	10	15	14	21	10	70
Promotions and rewards are not necessarily based on performance.	14.3%	21.4%	20.0%	30.0%	14.3%	100.0%
Item 3 Recognition & Rewards	20	19	17	13	1	70
I am rewarded on the basis of how well I do the work	28.6%	27.1%	24.3%	18.6%	1.4%	100.0%
Item 1 Psychological Contract	10	15	17	23	4	69
I expect this organization to meet my training need	14.5%	21.7%	24.6%	33.3%	5.8%	100.0%
Item 2 Psychological Contract	11	9	15	23	12	70
I expect this organization to provide opportunities for promotion	15.7%	12.9%	21.4%	32.9%	17.1%	100.0%
Item 3 Psychological Contract	4	27	18	19	3	71
Overall, this organization has met the personal expectations that I had when I joined it	5.6%	38.0%	25.4%	26.8%	4.2%	100.0%
Item 4 Psychological Contract	5	18	21	23	3	70
In general, I feel that my career expectations before joining this organization have been met	7.1%	25.7%	30.0%	32.9%	4.3%	100.0%

Job Satisfaction Results:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Item 1 Pay *feel I am being paid a fair amount for the work I do*	17 23.6%	25 34.7%	9 12.5%	19 26.4%	2 2.8%	72 100.0%
Item 2 Pay *I am satisfied with the benefits I receive*	12 16.7%	32 44.4%	6 8.3%	20 27.8%	2 2.8%	72 100.0%
Item 3 Pay *I feel satisfied with my chances for salary increases*	18 25.0%	22 30.6%	16 22.2%	14 19.4%	2 2.8%	72 100.0%
Item 4 Pay *There are few rewards for those who work here*	6 8.3%	12 16.7%	19 26.4%	29 40.3%	6 8.3%	72 100.0%
Item 1 Promotion *There is really too little chance for promotion on my job*	3 4.2%	12 16.7%	14 19.4%	29 40.3%	14 19.4%	72 100.0%
Item 2 Promotion *Those who do well on the job stand a fair chance of being promoted*	11 15.3%	16 22.2%	19 26.4%	22 30.6%	4 5.6%	72 100.0%
Item 3 Promotion *People get ahead as fast here as they do in other places*	9 12.7%	25 35.2%	24 33.8%	11 15.5%	2 2.8%	71 100.0%
Item 4 Promotion *I am satisfied with my chances for promotion*	14 19.4%	20 27.8%	17 23.6%	19 26.4%	2 2.8%	72 100.0%
Item 1 Supervisory Style *My supervisor is quite competent in doing his/her job*	4 5.7%	3 4.3%	14 20.0%	41 58.6%	8 11.4%	70 100.0%
Item 2 Supervisory Style *I feel my relationship with my supervisor can be improved*	3 4.2%	6 8.5%	8 11.3%	44 62.0%	10 14.1%	71 100.0%
Item 3 Supervisory Style *I like my supervisor*	3 4.2%	2 2.8%	10 14.1%	44 62.0%	12 16.9%	71 100.0%
Item 1 Co-workers *I like the people I work with*	0	2 2.8%	12 16.7%	42 58.3%	16 22.2%	72 100.0%

Item 2 Co-workers	2	8	11	36	14	71
I am happy with my work atmosphere	2.8%	11.3%	15.5%	50.7%	19.7%	100.0%
Item 1 Job Itself	0	1	14	36	21	72
I sometimes feel I have more potential than my current scope		1.4%	19.4%	50.0%	29.2%	100.0%
Item 2 Job itself	1	6	3	47	15	72
I like doing the things I do at work	1.4%	8.3%	4.2%	65.3%	20.8%	100.0%
Item 3 Job Itself	1	4	5	40	22	72
I feel a sense of pride in doing my job	1.4%	5.6%	6.9%	55.6%	30.6%	100.0%
Item 4 Job Itself	1	7	9	44	11	72
My job is enjoyable	1.4%	9.7%	12.5%	61.1%	15.3%	100.0%

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Wage Disparity between Male and Female Teachers

Nesrin A. Tantawy

The British University in Dubai

Abstract

This review is meant to shed light on one of the most intractable issues worldwide, namely the wage disparity or gender-based pay discrimination between men and women for comparable positions. This policy analysis tends to draw attention to the salary discrepancies between male and female staff members in academic settings. Despite the statistics which assert that women's participation in the paid workforce has been escalating, their overall salaries relative to their male counterparts' have not. The paper then promotes strict implementation of the enacted federal policy of UAE Labor Law (Article 32) by all the entitled authoritative bodies in order to ensure a non-gender based wage system in the academic medium.

Key words: wage disparity, gender-based pay discrimination, academic settings

Introduction

The gender pay gap can be defined as "the difference between man's and woman's pay, based on the average difference in gross hourly earnings of all employees", while gross earnings are the directly paid salaries or wages to the employees (Smith 2012, p. 366). Although several strategic approaches that targeted policy practice among public as well as private sectors were followed, all occupations bore unabated gender gaps in

pay throughout history (Gibelman 2003). As put by Hart (2013), women still earn less than their male counterparts in almost every job category and by far "[a]cademia is no exception" (p. 873); she goes on to say that women's work within the teaching categories is yet greatly undervalued. By and large, academia is said to mirror the rest of society, thus gender inequity, with respect to salary, still exists in academic settings (Monroe et al. 2008). On the whole, women's wages have never been found to equal men's anywhere around the world (Weichselbaumer & Winter-Ebmer 2005), the results that have been highlighted in Parkar's work (2005) "[w]omen are paid less for their work than men almost universally, earning about 77 percent of male wages in industrial countries and 73 percent in developing economies" (p. 265). The cause of such inequities is argued to be that "women have unequal social, economic and legal rights" (p. 266) yielding to the broadly adopted notion across the world that salary underlies the professional value and position worth of an individual in the eyes of the society.

Literature Review

The American Model:

Although the issue of pay equity has a lengthy legislative and judicial history, it sustains as one of the most intractable social problems in the American society (Gibelman 2003). Surprisingly, the gender wage gap perseveres more than fifty years after the passage of the Equal Pay Act of 1963 by John F. Kennedy, the federal law that aimed at eradicating sex-based pay discrimination between men and women who perform equal jobs and undertake similar responsibilities under identical working conditions (Sallop & Kirby 2007). Brought to the public eye, the connection between salary and gender gained more emphasis in the 1970s; research results concluded that

men constantly out earned women in both practice and academia. In 1980s and 1990s, a number of published studies investigated wage disparity between male and female academic staff members and found that salary disparities were still pervasive in all disciplines (Lane & Flowers 2015). Consequently, a call for coherent policy practice and systematic implementation was proved crucial in supporting the massively disadvantaged women in their professional career (Drudy 2008), the point that was underpinned by President Clinton in 1999 when he demanded the "enforcement of the equal pay law" (Gibelman 2003, p. 23).

Specifically speaking, investigations of gender pay differences in U.S schools explain another partiality against female teachers who receive a lower placement on the salary scale during the recruiting procedures on which depend future salary raises (Lee & Smith 1990). Mulinge (2002) in his study signifies "the documentation of gender discriminations in the teaching profession" (p.3) and how public service falls short of committing to the codes of equity and justice in many respects. The wage gap among the academic spectrum is admitted to be around 81% according to a study conducted by The American Association of University professors in 2006 (Hart 2013). Furthermore, statistics signify female teachers' median weekly earnings as $772 while those of male teachers and instructors are $1,096, with wage gap of 70.5%. Evidently, the wage gap in the teaching profession is a consequence of a perpetual misconception that men are more capable than women who are less committed to their jobs (Addison, Ozturk & Wang 2014).Lane and Flowers (2015) confirm that female teachers receive just 91% of their male equivalents' salaries, a ratio that shows slight but inadequate improvement towards closing the gender pay gap.

Generally speaking, gender discrimination in the workplace is found to manifest both public and private sectors of labor markets (Umbach 2007). Recent studies reveal that

gender stereotypes about competence is one of the obstacles that stand in women's way to equity; the studies also find that men are thought of as being more competent than women. Since society links salary with competence, women are often expected to receive lower payment by employers who believe that women are low-priced source of employment (Kalantari 2012). A 2011 study that contrasts men's to women's wages shows a gender wage gap of 17.8% between women's and men's average earnings in almost all occupations even when comparable education skills and professional experience is taken into account (The New York Times 2012). In the same vein, it is predicted that men will still have earned more than women by the year 2050 (Diekman and Eagly 2000).

The gender pay gap and occupational segregation are said to be pertinent elements of the U.S. labor market (The New York Times 2012). Granted that factors like age, position, title, race, tenure level, productivity, academic discipline, education, and experience are controlled, gender still maintains a considerable correlation with salary (Eckes & Toutkoushian 2006;Umbach 2007; Lane & Flowers 2015). A current study by the American Association of University Women (AAUW) points out that wage inequities aggravates over time; whereas full time working women make 82% of what their male colleagues make one year after graduation, women lag further behind ten years later, receiving only 69 % as much as men do.

The Arabic and Local Models:

As reported in the UNESCO reports (2011), gender-based disparities in wages have been documented in almost every region with the greatest gap in Asia and the Arab regions. According to the World Economic Forum's Global Gender Gap Report 2014 (GGGR 2014), there's no country around the world offers equal pay for a woman and

man for the same job and that it might take around 81 years for this gap, identified now to stand at 60 % worldwide, to close. The Arab Labor Organization is found to have adopted both "Article 3 of the 1976 Convention on Female Workers (No. 5) and Article 13 of the 1983 Convention on the Determination and Protection of Wages (No. 15)" which state that male and female employees are to be equally paid for similar work; however, pay inequity still exists across many Arab countries even though the gap has relatively declined over the past years (Chen 2011, p. 36). The private sector is believed to have undergone a wider gender wage gap than have the public sector in most Arab countries; in Jordan, for instance, collected data shows that the monthly pay gap stands at 19.5% in the private sector versus 10.2% in the public sector in 2011, after receiving technical support from the ILO, International Labor Organization, and the NSCPE, National Steering Committee on Pay Equity. In Egypt, though article 35 of the unified labor law of 2003 bans gender-based wage discrimination, the wage gap was 40% in 1998 and increased to stand at 80% in 2006; furthermore, Egypt ranks 124 of 130 countries in the gender wage disparity issue (El-Hamidi & Said 2014). In the Gulf area, both Qatari and non-Qatari working women are negatively influenced by the gender pay gap reaching 22.7% in 2011 after being almost on par with their male comparables in 2011. Freshly graduated females in Saudi Arabia on average earn about 20 % less than males (The National 2013).

On local bases, the Global Gender Gap Report 2011 indicates that the UAE ranked 119 among the 134 countries covered in the report; the Global Gender Gap Report 2013, published by the Geneva-based World Economic Forum, confirms that the UAE leads the way in the MENA region with the narrowest gender gap, the remarkable accomplishment that is explained to emerge from the fundamental belief that women and men are equal partners in society with both its public and private sectors (Al-Waqfi

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& Al-faki 2015). In the same vein, the UAE ranks as the seventh country on the wage equality scale for similar work; the country closed just over 5% of the gender gap over the past 9 years and therefore achieved the highest proportion of change compared to its 2006 attainment on the Political Empowerment index (The Global Gender Gap Report 2014). Additionally, this gender wage discrepancy is on the downside in the UAE; in line with IMA's (Institute of Management Accountants) 2014 Salary Survey, a narrowing in the gender pay gap in the UAE is witnessed, although some disparity still exists. The survey found average base salaries for women in the UAE are 97 % of those for men, the findings that echoed those of a global survey which revealed that women in the Americas earn 95 % of their male equivalents' base salaries. Nevertheless, the total compensation packages for women, including salaries, bonuses and benefits, still lag behind standing at 85 % of that of their male counterparts which is broadly consistent with the global figure of 83 % (Emirates 24/7 News 2015). The Constitution of the UAE highly stresses on gender equality by guaranteeing equal rights for both men and women. Under the Constitution, women enjoy the same legal status, access to education, the opportunity to practice professions, elimination of all forms of discrimination against women including pay equality, Equal Remuneration Convention (1996), as men.

The UAE Labor Law developed in 1980 and was amended by Federal Law No. (24) of 1981, Federal Law No. (15) of 1985 and Federal Law No. (12) of 1986, is believed to be a comprehensive law that standardizes all aspects of labor relations between employers and employees and a balanced law that elucidates the rights and duties of all parties concerned which brings various benefits to employees and workers. Article 32 of the UAE Labor Law states that **"A female wage shall be equal to that of a male if she performs the same work"** which supposedly applies to both public as well as private

sectors and to all professions in every field, including teaching professions, according to Article 3 of the Law "the Law applies to all staff and employees working in the UAE, whether UAE nationals or expatriates" (UAE Labor Law). Conversely, the majority of women in the UAE believe gender gap continues at the workplace; according to a poll run by 'Emirates 24|7', 57 % of the female employees in the country believe men usually receive higher wages for the same work. On the other hand, 33 % of the participants agree this is not the case and the company they work for commits to the law of equal pay for equal work, whereas 9% of the respondents are not positive whether gender pay gap exists at the workplace or not.

A private school in Dubai:

Unlike public schools, many private schools in Dubai show no sign of commitment to a specific wage or salary scale or minimum wage system. Salary structure is stipulated and designated by local school boards, the kind of practice that, in turn, gives room for gender pay discrimination and bias. Pay determination practices in the private sector in Dubai is believed to be market-driven; besides, subjective administrator evaluations of teachers result in gender and race based inequities as well as partiality with the lack of federal government of pay in K-12 private education (Podgursky & Springer 2006).

In a private national school in Dubai, teachers are assigned specific roles, according to their job descriptors, of arranging teaching materials and aids, formulating daily as well as annual plans, and administering exams among other things for previously specified grades; under the school's cultural-based rule of accommodating male and female students in two separate sectors of the school premises, a parallel teacher is to

teach the parallel grades in the other sector and thus maintain similar working hours. Investigating the wage gap between parallel male and female teachers in the school, it is revealed that a high school English language female teacher, for example, earns as much as 94% of her male counterpart. Similarly, an Arabic language female teacher makes as much as 93% of the salary received by her parallel teacher; the overall wage gap between male and female teachers in the private school is around 7% according to the official salary structure formulated and followed by the school local board (Appendix A). The disparity in the staff salaries is found to be not pertinent to the basic salary, but to other criteria such as accommodation allowances and managerial increments with no particular reference to years of experience, educational credentials, professional training or position.

Discussion and Analysis

Across the teaching spectrum, the gender disparity that intrinsically exists in pay within the profession is highlighted through the "notions of hegemonic masculinity" which aggravate the salary gap "between women and men teacher educators" (Klein et al. 2014, p. 133). Traditionally, teaching is one of the feminized occupations that bear a worldwide gender pay gap particularly in the private sector which, accordingly, determines the ability of schools to hire and retain first-rate teachers (Allegretto & Tojerow 2014).

The gender wage gap, where women make a fraction of what men earn after controlling for experience, educational credentials, job responsibilities, age, professional training, and other factors, has been an intractable element of the labor landscape worldwide (Alksnis, Desmarais & Curtis 2008). Earlier research concludes

that the pay assigned to work mirrors the value of that work and of the person doing it. As a result, the gender pay gap is thought of as an indicator of the way in which women and their work are regarded in the eye of a society (Lips 2003). Moreover, a number of studies pinpoint the deeply rooted supposition of how proper female or male behavior is associated with natural skills and relevant responsibilities; thus the features of female occupations reflect the common stereotypes of women's assumed characteristics of being submissive and inclined to take orders, accepting minor wages and avoiding complaining about the obstinacy of occupational segregation (Anker 1997).

Arab societies, including the GCC region, share "high group-orientation as well as hierarchical and masculine cultural norms"; not to mention, the patriarchal nature of most Arab societies explains women's low participation in the labor force as well as their substandard employment conditions. The male-dominated culture, strict gender-segregation codes, strong family ties and social designation of women's role as a wife and mother, and cultural mobility constraints are key factors in creating and maintaining the gender wage gap in all professions (Al-Waqfi & Al-faki 2015, p. 401).

Causes
- **Social**: Traditions & Stereotypes; Sexual Division of Labor; Direct Discrimination; Women Work Devaluation
- **Historica**l: Loyal Servant; Glass Ceiling
- **Economic**: Occupational Segregation

Implications
- Marginilization of femininity in academia
- Domination of Masculinity
- Increase in povertyrates among female breadwinners
- Increase of education drop-out rates
- Decrease in professional workforce
- Diminishing promotion opportunities
- Demotivation for professional development

Closing Gap
- **National:** Legislative Advocacy; Social Policy Analysis
- **Institutional:**Transperancy; Single Wage Structure System
- **Individual:** Assertiveness; Stereotype Change; Professional Development

Illustration 1: Causes, implications, and closing the gap of wage gender-based disparity

Evidently, reasons for occupational gender bias are interrelated and multifaceted; "[g]ender mainstreaming… embedded in institutional arrangements, social norms, market systems and pay policies" is a focal aspect of the gender pay gap (Rubery, Grimshaw & Figueiredo 2005, p. 185). Occupational gender segregation, the tendency for men and women to be employed in different occupations in the whole spectrum of occupations, has been at the heart of gender inequality issues. High levels of segregation are considered to have a significant role in the inconsistency of the wages of women and men. Additionally, the misconception that women are less competent than men and the stereotypes about women's personal, physical, and cognitive abilities have negatively influenced employers' perceptions about the type of jobs women can

execute. Jobs that entail stereotypically female characteristics are less appreciated than those requiring male qualities; accordingly, findings ensure the hypothesis that female jobs are less valued than are male jobs. Not only do women get less paid than their male counterparts in the occupations typically dominated by women, but also in those mostly male-dominated. The justification may well lie in the inclination to undervalue work done by women (Eveline & Todd 2009; Kalantari 2012). Partially accounting for the gender wage gap is the fact that the higher paying occupations are traditionally male-dominated, a phenomena correlated with the placed value on work performed by women. Typically, the teaching profession, as a female-dominated occupation (Kelleher et al. 2011), is regarded as a low paying job that underlies a vast wage gap between male and female teachers (Probert 2005). Drudy's study (2008) indicates that the more feminized the profession is, the more prone its employees are to be inadequately compensated.

Direct or overt discrimination, when women are unfairly rewarded compared to men for carrying out the same work, might be the result of a policy or practice that is not designed to discriminate but intentionally or unintentionally miscarried into effect; different methods of employees' remuneration, e.g. bonuses, allowances, increments or performance-based pay, as well as the actual salary or wage structure, result in different rates of pay for male and female employees. Even this discrimination emerges from cultural and historical factors; the so-called 'glass ceiling', preventing women from occupying high paid positions, and the 'loyal servant', the limited mobility of female employees and their submissive commitment to their jobs, hypotheses are among these factors (Blackaby, Booth & Frank 2005).

Analyzing the cultural aspects, the social inequalities between men and women are unraveled; it is universally believed that it is the man's responsibility to support and

provide for the wife and family (Metcalfe 2011). Gender stereotypes arise due to the societal perception of women's communal behaviors through their assigned social roles as caregivers, and of men's enacting leading behaviors through their public roles as the primary breadwinners (Williams, Paluck & Spencer-Rodgers 2010). Numerous studies have stipulated that women are more subject to underpayment practices because of underestimating their own economic worth and lacking negotiation skills; according to analysts women are totally uncomfortable with salary negotiations and tend to avoid it; many researchers believe that women are contented with less as they expect less. In addition, marital status can affect the earnings of women and men in different ways and therefore aggravate the gender pay bias. The earnings of women who are married and have children are generally lower than those of men who are married and have children; that phenomenon might align with the gender stereotypes that assign certain tasks to women and men based on a gender division of labor (Meulders et al. 2010). The religious and cultural significance of marriage across the Arab societies has been translated into public policies and legal structures that normally, when misinterpreted, relegate women to a minor being supported by a male breadwinner. Labor laws in the Arab region usually consider men, rather than women, the exclusive beneficiaries for non-wage benefits granted by the state. These policies and practices regard women only as wives and mothers neglecting their professional ambition.

Metcalfe (2011) confirms that inequalities are generally more marked in developing countries where the issues of women's rights of education and political empowerment demoralize women's role in the public domain. These intersecting patterns are said to be a significant characteristic of the Gulf region. On the one hand, the United Nations Development Program (UNDP) status report (2007) on Millennium Development Goals expounds the constructive outcomes of the UAE's policies in women's

empowerment; it notes that the state legislations in the UAE prohibit all types of discrimination. On the other hand, gender-based inequality still exists in some workplaces with special regards to the private sector. Pay gaps are less pervasive in the public sector, since the mechanisms for setting wages and pay scales are highly regulated. While Dubai is said to have no minimum wage rates or standardized salaries; teaching is one of the few professions that has a minimum wage of Dh.2000 per month, although it is not always adhered to. Salaries can vary in the same school depending on the gender, among other factors, of the teacher as previously clarified. Neither the UAE Federal Labor Law nor the Emirate of Dubai has the provision for minimum wages (UAE Labor Law), and a teacher's salary is what is negotiated which gives room for gender-based occupational discrimination (TheNational 2013). In the private school previously referred to in Dubai, around 5% of the female teachers are either single, divorced, widowed, or with unemployed spouses and therefore they act as the primary family provider; however, the local school board still holds the notion that only male teachers are breadwinners and thus deserve higher salaries.

Conclusion and Recommendations

Although UAE constitutions legally protect human rights, including equality, there is an immense variation of wages and benefits among employees in the UAE; salaries and benefits vary widely on bases of age, gender, education, industries, sectors, emirates, and workers' nationalities (Tong 2010). Markedly, teaching as a profession is one of those occupations that show a vast gap in wages in Dubai; the lack of legal entities to impose strict implementation of federal and state labor law on the private schools buttresses the fact that what is evident in one private school can be generalized to all

the private spectrum of schools. The given data put forward the fact that national, state, and private sector efforts are proven insufficient in attaining pay equity for women. Noticeably, "there is a discrepancy between policy goals and policy outcomes" due to deficits in implementation procedures (Gibelman 2003, p.25). With this significant legislative and judicial history, discriminatory hurdles are thought to have diminished, but barriers at the implementation level impedes "the progress of women toward equality" (p. 26). In spite of the progress has been achieved since the early 2000s, there is much more need for growth (Addison, Ozturk & Wang 2014; Lane & Flowers 2015).

Equal pay between men and women needs to be promoted through eliminating the gender-based stereotypes about women's roles in the society as well as tackling gender bias in wage structures. A single salary schedule, "uniform pay steps that ensures teachers with the same years of experience and education level receive the same salary" (Podgursky & Springer 2006, p. 6), would also greatly contribute to eradicating the gender-based bias in the workplace and replace prior wage systems based on negotiations between teachers and the local school board. Addressing the pay gap issue on both macro and micro levels would guarantee that all employers in the UAE commit to a specific wages system in order to ensure that all employees are fairly paid, since failure to apply the system will result in an increased wage gap and gender-based occupational bias. A systematic salary review to detect any violation of the equal pay legislation with legal consequences and penalties should be highly advocated. Transparency in advertising salary ranges, job description, employment requirements and conditions as well as standardizing performance pay procedures for promotion and salary rises which decreases chances for bias away from the public eye. In pursuit of regaining local control and professional autonomy, this should be first attained at a local micro-political level followed by a national one.

Ensuring the access of female teachers to decent salaries and assuming they are primary caregivers and breadwinners in their families would have a positive impact on teachers' motivation which will contribute to an elevated level of education and the welfare and of the students as mandated by the KHDA in Dubai. Finally, organizations, including schools, should be clear about both written and tentative, unwritten policies and allow for public discussions of wages; all policies should be aligned with the law and code of ethics to demonstrate dedication to equity and social justice (Siraj et al. 2006). Ultimately, it must be mentioned that this review is carried out in contribution to a larger body of research where case studies are usually utilized to provide fine details to enhance large-scale investigations.

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Appendix A

The following is a salary/allowance table (rotated), with columns labeled AA, U, T, S, R, Q, P, O, N, M, L, K, J, H, G, F, E, D, C, B, A.

مجموع الراتب (AA)	add.allow (U/T)	البديل 2 (S)	الزيادة 67% (R)	البديل 1 (Q)	بدل السكن 30%+25% (P)	الإجمالي (O)	NS الأساسي (N/M)	بدل غلاء (L)	بدل عائلة عزوبية (K)	بدل عائلة (J)	بدل نقل (H)	سكن (G)	بدل عمل (F)	الراتب الأساسي (E)	رمز الوظيفة (D)	الوظيفة (C)	الفئة (B)	تسلسل (A)
7200	250	6950	455	6500	1300			500				2500	500	2500	T7			1 / 6
5550	250	5300	346.5	4950	1000			450				1000	500	2500	T4			2 / 7
6250	250	6000	390.25	5575	1125			575				1500	500	2500	T5			3 / 8
4875	250	4625	302.75	4325	875			325				500	500	2500	T2			4 / 9
8975	350	8625	563.5	8050	1850	2415	8050	2050	500	1000		2500	500	2500	T11			5 / 10
7575	350	7225	472.5	6750	1550	2025	6750	1750	500	500		1500	500	2500	T8			6 / 11
5500	350	5150	336	4800	1100	1440	4800	1000	0	1000		1000	300	2500	T4			7 / 12
7925	350	7575	495.25	7075	1625	2122.5	7075	2075	500			1500	500	2500	T9			8 / 13
6050	200	5850	381.5	5450	1250	1635	5450	1500	125	1000		1400	500	2500				14 / 19
4800	200	4450	290.5	4150	950	1245	4150	350		1000		500	300	2500	T5			15 / 20
5600	250	5350	350	5000	1000	1250	5000	275				1000	500	2500	T2			16 / 21
6875	350	6175	404.25	5775	1325	1732.5	5775	500		500		1500	500	2500	T3	KG1+2		17 / 22
6125	350	5775	378	5400	1250	1620	5400	150		400		1500	500	2500	T2			18 / 23
4800	350	4450	290.5	4150	950	1245	4150	100		500		750	300	2500				19 / 24
6525	350	6175		5775	1625	2107.5	7025	300		1000		1500	500	2500	T10			25 / 26
7875	350	7525	491.75	7025	1700	2340	7800	425		500		1500	500	2500	T6			21 / 26
8275	350	7925	518	7400	1700	2340	7800	300		500		1500	500	2500				20 / 25
8975	350	8625	563.5	8050	1850	2400	8000	500		500		1500	500	2500				23 / 28
4125	250	3875	253.75	3625	725	906.25	3625	125		500		500	500	2500	T1			26 / 31
4625	250	4275	280	4000	800	1000	4000	500		500		1000	500	2500	AS1			35 / 40
5200	250	4950	323.75	4625	925	1156.3	4625	125		500		1000	500	2500				17 / 22
4125	250	3875	253.75	3625	725	906.25	3625	125		500		500	500	2500	T1			26 / 31
4625	500	4950	323.75	4625	925	1156.3	4625	625		1000		1500	500	2500	AS5			31 / 36
5450	500	4950	323.75	4625	925	1156.3	4625	625		1000		1500	500	2500	AS5			31 / 36
4625	350	4275	280	4000	800	1000	4000	150		500		1000	500	2500	AS4			32 / 37
4550	100	4450	290.5	4150	950	1245	4150	150		500		500		2500	S1			30 / 35
5600	100	5500	358.75	5125	1175	153.7.5	5125	125		1000		2000	500	2500	S2			29 / 34
6875	350	6525	427	6100	1400	1830	6100			1000		2000	500	2500	S3			28 / 33
7575	350	7225	472.5	6750	1550	2025	6750	100		1000		2000	500	2500	S4			27 / 32
4125	250	3875	253.75	3625	725	875	3500	250				500	500	2500	T1			26 / 31
5600	250	5350	350	5000	1000	1125	4500		500			500	500	2500				
5200	250	4950	323.75	4625	925	1075	4300					1000	300	2500				
6525	250	6275	411.25	5875	1175	1250	5000					1500	500	2500				
6175	350	5825	381.5	5450	1250	1635	5450					1000	500	2500				
2375	100	2275	148.75	2125	425	375	1500		0	500				1000	M5			40 / 45
3150#	200	2950	192.5	2750	550	687.5	2750	250	375	500	500			1000	M4			39 / 44
3875#	250	3625	236.25	3375	675	843.75	3375	375		500	500			1500	M3			38 / 43
4625#	350	4275	280	4000	800	1000	4000	625		1000	500			2500	M2			37 / 42
5450#	500	4950	323.75	4625	925	1156.3	4625			1000	1000			2500	M1			36 / 41

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Bilingual Education between Policy and Implementation in the United Arab Emirates

Ramia Dirar Musmar

The British University in Dubai

Introduction

1.1 Background of the study

Effective execution of policies that builds upon objectives deployed in institutions' documents can be an overwhelming task (Robichau & Lynn 2009). In spite of the context type, determining how policies have been implemented addresses questions on the consistency between the expected results ensue and the scripted policy document. Failing to match those desired outcomes and policies has been recognized to be a gap, and that is one of the foremost hindrances of making the anticipated outcomes of any institution attainable (Abu-Ayyash 2016). In educational institutions, it is not easy to determine with inevitability whether certain policies; for example language policy, are explicitly acknowledged and practiced in most domains. Language education policy (LEP) has been considered a powerful mechanism for creating de facto language policies in most countries (Tollefson 2002). Those countries, and the United Arab Emirates (UAE) is no exception, have introduced LEPs that range from polices pointing the need to learn one second language (L2) in addition to mother tongue language (MT) (Menken & García 2010). That need is no secret devoted to dominant and respectful languages, like English which enjoys considerate status and hereby utilized as the principal second language in worldwide most educational institutions (Crystal 2003),

including the Arab world and mainly in the UAE (Godwin 2006). In UAE, considerable attention has been recently devoted to policy of bilingual education, where reforming the emirate's education system and promoting a bilingual approach in learning and teaching are the main objectives of the strategic plan of the initiatives and supervising bodies of education such as Abu Dhabi Education Council's (ADEC) (ADEC 2017). Needless to say that acquiring and utilizing the knowledge of two languages for educational purposes with a considerable degree of fluency, known as bilingual education, is increasingly and advantageously valuable in the academically globalized world (Kirkgöz 2009), and that significance has been highlighted in the *Policy 7110 Language of Instruction* in the *ADEC* Public School (P-12) Policy Manual under section 7000: instructional Program (ADEC 2015) (Appendix A). ADEC, as a visionary response to the educational reform in UAE and to support achieving Abu Dhabi 2030 vision, has embarked on promoting a bilingual education approach that begins at Kindergarten (KG) and extends to grade 12-Math, Science and English learning by enshrining the fact that teaching literacy skills and content in two languages would equip students with the twenty-first century skills (ADEC 2017).

It is a fact that the educational system in UAE is relatively new and that supporting of the New School Model (NSM) as a branch of the educational reform in the emirate of Abu Dhabi is anticipated to obtain internationally notable results in educational standards. O'Sullvian (2015) reported that this reform has been extensively accepted since massive resources have been devoted to UAE education, yet student learning remained generally inadequate. Quite understandably, the need for education reform that builds up language learning becomes evidently significant. To achieve successful second language learning and teaching, emphasizing native and non-native speaker interactions in the emirate of Abu Dhabi grows to be a necessity to improve students

language attainment and proficiency levels (Alkhalil 2009). Nevertheless, enshrining the educational success and meeting the expectations of policy makers encompasses the participation and consultation of all stakeholders involved in implementation; and teachers are the foremost. In reference to teacher's perspectives and the relevant document analysis, this study attempts to determine whether a gap exists between the reform-policy document that pursues promoting bilingual education and its implementation during the current reform climate.

1.2 Statement of the problem

Considering the contemporary regional and global realities, having the proficiency in storing and functioning in two or more languages has gained increased significance. Recently, policy of bilingual education is generating disagreement and controversy around the world. In the public schools in Abu Dhabi in UAE, policy makers have undertaken the bilingual education system with the aim of meeting the ends of the visionary reform. This has been generated, organized and proceeded supervisors in ADEC in a top-down manner as policies are politically set higher levels and then communicated to subordinates, which in turn will contribute to depriving many subordinates, mainly teachers, from the positive participation in aligning the policy with its implementation, and thus create a feeling of disenfranchisement among them.

1.3 Purposes and Objectives

This study explores the perspectives of Grade 10 and Grade 11 public school English, Math and Science teachers concerning ADEC educational reform in one secondary girl's school in the emirate of Abu Dhabi.

It additionally attempts to:

- Explore the inconsistency, if any, between bilingual education policy and teacher's implementation in public school in Abu Dhabi.

- Suggest ways to better implement the bilingual education policy in public school in Abu Dhabi.

1.4 Questions of the study

The research questions of this study are the following;

Main question:

Does the bilingual education policy complement the anticipated objectives?

Sub-questions:

1. What are the English, Math and Science teachers' perspectives of the bilingual education policy in Abu Dhabi?

2. In reference to teachers' perspectives, has there been any gaps between the bilingual education policy and its implementation in Abu Dhabi?

1.5 Significance of the study

Cultivating bilingual language proficiency and encouraging learners to read in their mother tongue and another language have been a perquisite in an increasingly globalized world. The significance of this study is demonstrated by giving the stakeholders insights on how in-depth knowledge of the contextualized teachers' perspectives of the bilingual education policy in Abu Dhabi is a necessity to make its implementation sustainable and successful.

1.6 Rationale of the study

The rationale for investigating the issue of bilingual education has evolved from the researchers' professional interests on the role of L1 in English classrooms. Being an Arabic/ English bilingual teacher of English in one of ADEC public schools means that the bilingual education policy has affected my practices to whether embrace or exclude Arabic in English classrooms. Having that bi-competence has significant effects on my pedagogical techniques and methodologies for implementing the polices of the directing institutions of education in UAE.

Literature Review

Considering that this study gives prominence to bilingual education and the consistency between the written policy text and its employment, this chapter is consequently divided into two main sections. Bilingualism and policy models for bilingual education issues will be discussed in the first section whereas the second will encompass a discussion of numerous studies that examined the relationship between the written policy document and the implementation of policy.

2.1 Conceptual Framework

2.1.1 Bilingual education

Defining bilingualism is no easy task. Throughout history, abundant definitions have been proposed In the literature (Baker 2011; Cummins 2000; Ellis, 2005; Garcia 2009; and González 2008), yet the competence to communicate effectively in two languages, with the same relative degree of proficiency is a mutual element exists among all (Hamers & Blanc 2000and Lanvers 2001). Bialystok (2001) describes bilingualism realistically by pinpointing to the realistic standards of second language proficiency which is being competent to a degree of functioning in the second language; and that is

a correspondent view by Hamers and Blanc (2000) who illustrated that the commonly held image of bilingual speaker is a person who is not necessary evenly fluent in the two languages together , but somewhat very proficient in the second one. On this point, Baker (2011) stated that bilinguals are not often perfectly equitable, but rather one language is typically prevailing.

Having elaborated more comprehensively and academically on Bialystok's (2001) description, a new ability called "Bi-literacy", has been revealed. In academic contexts, Bi-literacy is described as the competence in the receptive and productive skills in two languages; namely having ability to communicate thoughts, comprehend ideas and write using grammatical structures and terms in two languages (Baker 2011). And as one language is generally dominant for bilinguals, some receptive or productive skills would seem to be more developing than the others and that academically leads to differences in the Bilingual's language competence (Cummins, 2000).

2.1.2 Categories of Bilingualism

Cultivating bilingual language proficiency and encouraging learners to read in their mother tongue and another language have been a perquisite in an increasingly globalized world. According to Baker (2011) the development of the bilingual language proficiency in second language (L2) learners typically takes the procedure of sequential bilingualism in which introducing them to L2 occurs when they are enrolled in educational institutions. In the past, numerous researchers have conveyed concerns about that development justifying that, by the view that bilingualism holds learners to have a confined capacity for language acquisition (MacNamara 1967; cited in Carroll 2007), mainly; fewer diversified terminology, less grammatical proficiency, and limited skills in language processing (Byers-Heinlein & Lew-Williams 2013). However, advocates of early bilingualism have currently spotlighted their views on the

many potential advantages early bilingualism has mainly on students oral language skills and pre-literacy abilities (Erdemir 2013). Additionally, Cummins (2000) claimed that languages are interdependent and are controlled by a common processing system that permits knowledge and thoughts to be transferable and therefore advocated the hypothesis that proficiency in L2 acquisition is moderately reliant on children's' first language skills.

2.1. 3 Additive v Subtractive Bilingualism

The controversy and disagreements over bilingual education are grounded in the negative and positive results of undertaken studies, and as a result two approaches of bilingualism; additive versus subtractive, were addressed (Cummins 2000).

Since proficiency in two languages is considered a linguistic and cultural advantage, a number of researchers advocates achieving the additive bilingualism, which occurs when the Bilingual's first language and their identity are not endangered to be depreciated or underestimated (Baker, 2001). Opponents of subtractive bilingualism argued in favor of additive bilingualism illustrating that devaluing bilingual's L1 and their culture and gradually replacing it by L2 are disadvantageous and not "a humanistic approach" (Atkinson 1987, p.242; cited in Levine 2003). Joining the discussions of bilingualism-related issues, it is important to shed the light on the anticipated levels in which students will experience in achieving competence in two languages. In response to research findings that tackle the bilingualism's effects on children's cognitive development and to lessen the subtractive effect of L2 instruction, Cummins (1976; cited in Cummins, 2001) developed the "Threshold Theory" which assumes that learners are required to acquire and cultivate a threshold level of L1 proficiency, namely receptive and productive skills, antecedent to second language acquisition.

2.1.4 Perspectives on Bilingual Education

Bilingual education remains a topic of worldwide debate and that is manifested in the dichotomy revealed in the studies investigating the effects of bilingual education on cognitive development and communicative skills. In general, the effects of bilingual education has been recognized in Pearl and Lambert's study (1962) which created a milestone in the field of bilingualism (Baker 2001; and Hamers & Blanc 2000). Effects of bilingual education involve beyond academic benefits to valuing culture and heritage. (Ramos 2007). In fact, many researches illustrate that bilingual learners linguistically outperformed the monolingual equivalents. For example, bilingual learners have displayed advanced levels of cognitive processes and linguistic awareness that are associated to second language acquisition (Lindholm-Leary & Borsato 2001); a viewpoint by Cenoz, Hufeisen and Jessner (2001) who demonstrated that bilinguals have a higher level in using the communicative strategies.

2. 1.5 Policy document and implementation

Operationally, Ogbonnaya (2003) defined policy as purposeful procedures in approaching essential issues. Linked to the previous definition. He added that policy is the anticipated objectives of an institution in conjunction with guidelines for action. Another comprehensive definition suggested by Honig (2006) stated that policy is a set of analogous decision by political agents communicated to subordinates that encompasses the selection of objectives and the means for accomplishing them within particular conditions. Jacobson and Young (2013),in their study on educational policy, perceive policy as the established rules and structures by top management and subordinates to generate positive results on the progress of the institution.

Whatever the definition of policy is and the field it encompasses, understanding the objectives of the policy establishes a better understanding of how its implementation takes place in that field, such as in education.

Policy implementation is basically turning the policy into practice with an emphasis on the association between the anticipated expressions of the institution's intention; either encouraging or discouraging execution of something, and the obtained results (Rosli & Rossi, 2014). Rosli and Rossi (2014) demonstrated that the attainment of educational policy objectives is crucially based on the process of policy implementation. Robichau and Lynn (2009) correspondingly highlighted the importance of aligning the policy document with its implementation in order to make the educational policy decision meaningful and pursuable. She also added that developing policies does not reflect success of the institution if policies are implemented effectively and thus shared (Pressman and Wildavsky's ,1984; cited in Cetra, 2013) belief that implementation of the policy influences its outcomes. In order to make a policy and its succeeding implementation efficacious and to understand the nature of policy implementation over time, numerous theoretical policy-implementation models have been consequently illustrated; mainly top-down approach, bottom-up approach and a combined approach (Birkland, 2014). Utilizing those approaches mainly depends on the essence of the policy and the policy implementation's contextual setting. Generally, top-down implementation involves forming and executing of the policy decisions, that are set by policy designers, and then communicating them to the implementers, whereas the policy implementation in the other approach is a reciprocal process that involves collaboration between the the policy makers and the subordinates who have the discretion to modify its objectives or change the way of its implementation.

In order to better understand how the different dimensions of education policy implementation, Sultana (2008) reviewed a number of studies that tackle the relationship between policy objectives and its implementation and therefore concluded that understanding the dimension of people; policymakers and implementer, the targets of the policy and the context in which the policy is established deepen our understanding on how those dimensions interact to shaper the implementation process and the objectives (Figure 1)
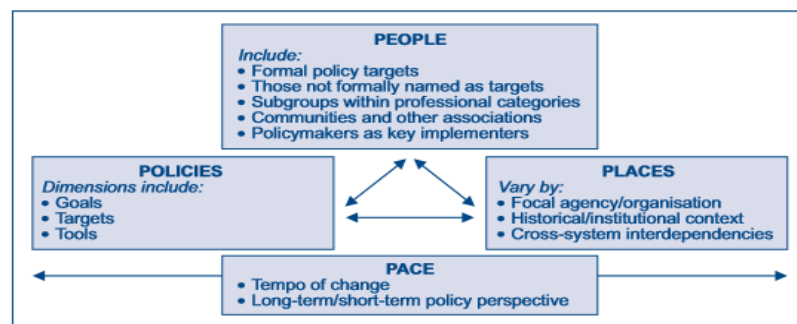
Figure 1: Dimensions of education policy implementation (Sultana ,2008; adapted from Honig, 2006)

2.1.6. Explanation of the increasing gap between policy objectives and implementation

As no versatile policy exists to fit all purposes, it is prevailing to detect gaps between what was outlined in the policy document and what actually occurred. A host of researchers argued that the complexity of some educational issues in policy documents may lead to increasing gaps between the anticipated objectives and the instruments utilized for implementation (Rosi & Rosli 2014; and Spillane, Reiser, & Reimer, 2002). Other researchers pointed that the realization of policies in the context of UAE is based on the cultural context in line with the design of the policy and implementation tools utilized (Al-Waqfi & Forstenlechner, 2014). In reference to their views, designing a

policy includes the process of setting realistic and achievable goal, and establishing efficient devices to accomplish these intended goals. They further claimed that the methods should involve regulatory and governmental elements, or financial and monetary elements, or agreement element or communication–based elements in order to generate operational government policy (Lascoumes & Gales 2007; cited in Al-Waqfi & Forstenlechner, 2014). Numerous explanations that pinpoint how policy is implemented in reference to the design of the policy, the administrative arrangements that operate the policy and the aptitude of those involved to implement the policy have been proposed by scholars.

The scholars premised their explanations on the importance of having assistance of agents, such as teachers, to achieve the aspirations of the institution and thus make the ends of the policy a reality (Spillane, Reiser, & Reimer, 2002). They further demonstrated that the gap is a result of the implementer's deficiency of the skills, knowledge, constructive understanding and assistance of the policy makers to establish a kind of consistent canals to better implement the policy. In order to provide an explanation on the gap between institutions' policy aspirations and its implementation,

Rosi and Rosli (2014) provided a conceptual framework that consolidates different arguments from researches on policy implementation (Figure 2).The main focus in their proposed framework, which was grounded in the theoretical underpinnings, was how both policy's setting and its implementation develop in different directions to create a mismatch between them.

As shown, the framework examines the contrast between the two sources of policies; the first category is the government that sets the policy aspirations whereas the second is the agency that is required to implement the policy through assembling the suitable instrument. Over time, the policy process encompasses a complex array of aspects that interact with many levels of agencies. Therefore, it is expected that in conjunction with the different pressure that may occur between the objectives and the implementation, a developing mismatch will arise particularly when the policy involves ambiguous and complex issues. According to Rosi and Rosli (2014) , if the issues are extremely convoluted, different perspectives will emerge to interpret the issue and thus the understanding will become more ambiguous and the gap between policy makers and implementers tends to increase.
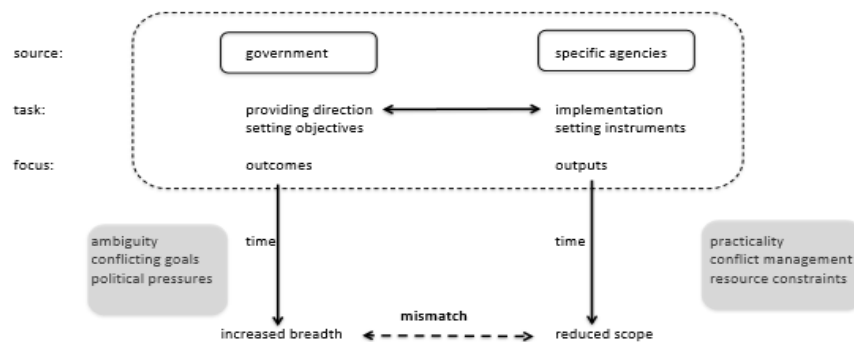
Figure 2: A framework illustrating the gap between policy objectives and implementations (Rosi & Rosli 2014)

In line with Rosi and Rosli's framework, Bach, Matt and Wolff (2014) suggest that policy ambiguity that results into poor implementation is not only a result of establishing poor alliance and agreement in the policy development process, but also it is a consequence of communication-problems addressed by policy developers.

In a comparative analysis on the challenges of policy implementation, Sultana (2008) stated that disregarding and overlooking any group or level of people in the education system during the reform process, like teachers, education officers and inspectors, creates a gap which in turn leads to critical problems in implementation. She further suggested to involve deputy principals, inspectors and parents in benchmarking and promoting the implementation of practices and standards of the reform process.

2.2 The theoretical underpinning

Language development faculty is one of the most essential and thought-provoking set of theories applied to comprehend Second language acquisition phenomenon (Krashen 2013). This study is based on Krashen's Input Hypothesis which claims that in order to have a systematic linguistic output, students learning second or third languages should have a large exposure to those target languages (Krashen 2013).

Additionally, educational policy is a dynamic negotiation between diversified performers, including teachers, superintendents, and policy developers and thus apprehending the complication of its implementation can be through considering the interactions and negotiations between the performers in particular policy contexts (Figure 3). That interaction is grounded in Lev Vygostky's Sociocultural theory that emphasizes that giving individuals rooms for social and cultural interaction can help them to construct and reflect on their knowledge (Vygotsky,1978; cited in Colón & Heineke, 2015). This sociocultural framework consolidates examining the policies and the interplay between policy and the performers.
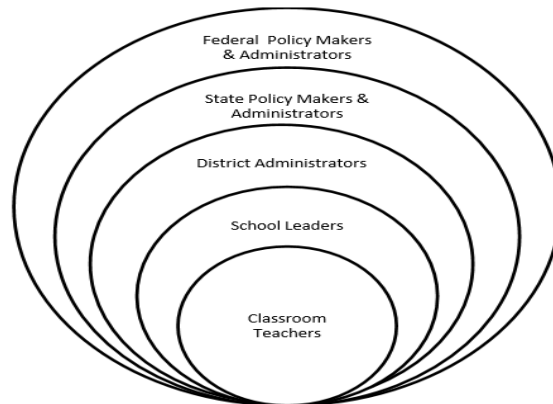
Figure 3: Multiple Layers and Actors in Educational Policy (Colón & Heineke, 2015).

2.3 The present study

The path to policy implementation, which has become a crucial driver in the attempt to improve the quality of education, generates a lot of challenges across the world (Rosi & Rosli ,2014; Spillane, Reiser, & Reimer, 2002), and the UAE is no exception (O'Sullivan, 2015). Quite understandably, laying the foundation for dramatic quality improvement in the education reform is considerably vital, however some policies that emerge in the reform require wide-ranging discussion to make their contents comprehensible. Although ADEC strives to develop education, educational policies in the UAE, like any other worldwide educational environment, are inevitably subject to global influences (Robichau & Lynn 2009).

O'Sullivan (2015) stated that the problem of the educational policies followed in the UAE is that they are not home-grown or reflective of the country's need. She elaborated that although the supervising body of education in the emirate of Abu Dhabi has attempted to develop the quality of education for four decades, the education system seems to be unsuccessful. To help achieve the objectives of ADEC's vision, numerous policies concerning the bilingual education system have been created. Yet, those

policies have not been indigenous and therefore it is expected that the inborn polices in the UAE may lead to gaps between the policy and implementation.

Correspondingly, in their whole-school reform model, Castellano and Datnow (2000) based their arguments on specified and comprehensive research-based models in respect of policy-implementations guidelines. They elaborated that in order to have a reflective educational system, the policies must be established indigenously. To meet the needs of educational reform, they further emphasized on the importance of including all members involved in the learning and teaching process, particularly the students and teachers.

As a matter of fact, the worldwide supremacy and dominance of English language to exceed other languages on account of the economic, political, and technological reasons extends to the Arab world Crystal (2003), including the UAE (Godwin, 2006). That superiority made English the medium of instruction in higher education institution in the UAE and it turns that secondary schools will be accountable for preparing students to a considerable level of proficiency in English. That was illustrated in a report in one local newspaper which documented a decision taken by the UAE's Minister of Higher Education at the Federal National Council (FNC) to disassemble English foundations programs at higher educational institutions by the year 2018 (Salem & Swan, 2014). The authors further conveyed that the decision of abolition of the foundation programs will require critical changes in the curriculum and thus consider secondary schools the responsible homes for qualifying students for university education.

However, favoring English over Arabic (UAE's first language) and making it the medium of instruction in the context of Emirati higher education institutions has been a topic of controversy in the past few years (Issa, 2013). Issa (2013) in her report

documented arguments of a number of educational experts in the field of linguistics and the FNC's members who urged to make Arabic the chief language at state universities; and thus warned that abandoning using Arabic will result in a violation of the UAE's national identity and constitution. The author further illustrated, in reference to cultural advisors, that Arabic will not be an obstacle to the country's development and in contrast that successful nations around the world acknowledge the importance of student's first language in scaffolding the nation's striving for excellence in education.

Having understood all the previously mentioned arguments and due to ADEC's lack of experiences in designing and implementing educational reform, ADEC has established a constructive bilingual education policy that adopts teaching English, Math, and science using English language curriculum. The curriculum has been designed by Australian consultants and applied in secondary schools in 2007. The curriculum has been designed in 2007. That process commenced with establishing public-private partnerships (PPPs) who were assigned to qualify and mentor Emirati teachers to implement the curriculum designed by numerous foreign companies Nevertheless, the plan changed in 2009 into recruiting native licensed English speakers to teach in secondary schools in the emirate of Abu Dhabi (ADEC, 2017).

Methodology

This chapter describes the specific fieldwork techniques employed to collect data to answer the research questions.

3.1 The Research Approach

Considering that the study is contextually particular to investigating the inconsistency, if exists, between bilingual education policy and its implementation in public school in Abu Dhabi in reference to teachers' perspectives, the researcher employed the case study research (Creswell, 2013). The researcher considers using this all-encompassing research method to study the phenomenon of bilingual education policy in a bounded system of one of secondary schools in the emirate of Abu Dhabi. According to (Gay et al 2009), using the case study research leads to concrete knowledge that resonates with the reader's experiences due to its tangibility. This study is described as heuristic and will provide readers with new insights and understanding beyond their original knowledge.

3.2 Research Design

This study adopted qualitative research that is characterized by an inductive approach that focuses on interpreting participants' perspectives (Merriam & Tisdell, 2015). This approach was appropriate to capture the participants' perspectives in order to provide an in-depth explanation of their practices in normal setting (May, 1993; cited in Gay et al 2009) . As this qualitative research is an intimate and open-ended endeavor that the researcher intends to make it responsive to the context and setting under study, the data collection plan is designed to craft a conceptually sound and persuasive document that provides reviewers with an argument for supporting the proposed study.

3.3 Instruments

To explore the perspectives of perspectives of Grade 10 and Grade 11 public school English, Math and Science teachers concerning ADEC educational reform of imposing the bilingual education policy, the researcher utilized two qualitative research methods;

document analysis and e-mail interviews respectively. Using e-mail to interview the researcher's participant was more effective due to the fact that teachers were busy in designing, administering, moderating and marking exams so engaging in an ongoing conversation was less intrusive as they were given the freedom to answer either synchronously or asynchronously (Gay et al 2009) (Appendix B). The document analysis involves reviewing and evaluating documents systematically in order to formulate meaning and cultivate empirical knowledge for a better understanding of the policy (Bowen ,2009).

3.4 Sample

Purposive sampling was employed to select six teachers, two each English, Math and Science teachers in one secondary school. Having used the purposeful-criterion sampling helped the researcher to identify and select the experienced and well-knowledgeable participants of the investigated topic (Creswell, 2013).

3.5 The site selection

This study explores the perspectives of Grade 10 and Grade 11 public high school English, Math and Science teachers concerning ADEC educational reform. The school applies ADEC's curriculum for teaching all subjects. Teachers are provided with all teaching resources on ADEC's portal. English, Math and science are taught by licensed native speakers of English and Arabic-speaking teachers. Each teacher takes up to 18 sessions a week with no assistants. During the Science and Math's exams, students who are Arabic speakers, are provided with two-language versions and students have the freedom to answer in any.

3.6 Data collection

The policy document of bilingual education that serves the basis of this research is in the Policy 7110 in the ADEC Public School Policy Manual (ADEC 2015) (Appendix A). The researcher additionally referred to programme for International Student Assessment (PISA) results for the English, Math and science subjects that were released in 2012 by the Organization for Economic Co-operation and Development (OECD) (Appendix C). In fact, the accessible presence of this off-the-rack source of data made it easy to the investigator to adopt some system for establishing descriptive categories. Having adopted the system and cataloging the document, the researcher commenced analyzing and interpreting (Merriam & Tisdell 2015). In order to validate whether the bilingual education policy text is implemented by participants in the setting under study, e-mail interviews were held.

3.7 Data Analysis

In reference to the results of the research questions and through adopting an interpretive approach, this research was conducted by means of the lens of the social constructivist (Bogdan & Biklen 2007). The researcher utilized qualitative policy analysis procedures that encompassed the use of interviews and document analysis to address the research question. Having used the conventional and direct content analysis by coding and establishing themes, the researcher was able to systematically generate a reflective and interpretive synthesis that addresses the research questions(Gay et al 2009).

3.8 Ethical Considerations

As the researcher approached the school teachers in one educational institution to gather data, applying comprehensive ethical considerations was a priority. The researcher

considers ensuring respect, protection, confidentiality and anonymity of the participants and the school under study was a paramount concern at all times.

3.9 Study Limitations

As this study used purposive sampling technique to select participants in one school during the academic year 2017-2018, the sample may not represent the perceptions of the population and therefore the generalization is restricted to the sample and the context utilized.

Findings and Discussion

4..1 The Language of Instruction's Policy Text

The policy commences with the purpose followed by the policy statement. The policy statement comprises four sections; namely

1. Bi-literacy   2. Arabic and English Medium Subjects

3. Co-planning and co-teaching   4. Integration of Arabic and English.

The sections included detailed description and in-depth picture of the goals of the policy. The purpose of the policy is clearly and explicitly stated. The purpose outlines how English ad Arabic are planned to be the languages of instruction in all cycles in ADEC public schools. The first section in policy statement draws on developing bi-literacy in reference to ADEC's aspirations and the intended plan. It is clearly articulated that ADEC strives for developing learner's Arabic and English academic proficiency by recruiting Arabic Medium Teachers (AMTs) and English Medium Teachers (EMTs) to deliver instruction in both languages. The second section is sub-divided into three sections based on the cycles of ADEC public schools. The first item

tackles the implementation of the New School Model (NSM) in KG. To support its implementation, KG learners will be taught by both AMTs and EMTs who are required to work collaboratively to advance linguistic skills of students. Additionally, co-teaching will be a prerequisite for further language development support. The next items; cycle 1, cycle 2 and cycle 3 of the policy considers altering language in delivering contents of some subjects. *Table 1 outlines the information stated in the second item of the policy statement.*

Table 1 Arabic and English medium subjects – General information

Language of instruction	Subjects	Teachers
Arabic language	Arabic language, Islamic Education, Social Studies, Civics, Art, Music, Health and Physical Education	AMTs
English language	English, Math, Science	EMTs

The third section provides some details on co-planning and co-teaching. The policy states that in order to facilitate the learning of concepts and skills across subject areas, AMTs and EMTs are required to engage in join planning of curriculum units and further co-teach classes where lesson availability allows. The last section indicates that supporting student's bi-literacy is the responsibility of all teachers and thus introducing key terminology is to be done in both languages. Quite understandably, it can be concluded that supporting student's linguistic awareness and development is essentially anchored in using both Arabic and English as the languages of instruction.

4.2 PISA international assessment results

The results of the (PISA) show a significant discrepancy between the aspirations of the bilingual education policy and student's academic proficiency. Have the UAE ranked

in the bottom third internationally for English, science, and Math with the countries with a share of low achievers above the OCED average reveals that students do not exhibit the knowledge and skills that are supposed to be developed in reference to the targets of the policy (OECD 2014).

4.3 The Bilingual Education Practice

In reference to the interviews with the six teachers, the data showed a number of key categories, precisely: disfranchisement of teachers, nonselective and indiscriminate importation of overseas approaches, and a top-down approach. These categories led to a gap between theory and practice.

The participants, both AMTs and EMTs, claimed that this policy made their voices and consultation discarded in the curriculum reform process. Emirati AMTs stated that margining their role and the over-reliance on EMTs and the foreign methods in teaching Math and Science made them feel side-line; and they further emphasized that having marginalized them conflicts with the nationwide Emiratisation initiative. The random and extensive importation of foreign procedures was extremely criticized by all participants who supported the views by the problems occurred from the non-home-grown curriculum which were reflected in the TIMMS results. Finally, all participants documented that this policy was not piloted preceding its launch and neither teachers nor principals were consulted or trained to face the difficulties that might arise.

5. Discussion

It is undeniable that developing a generation of proficient and innovative learners has been an essential preoccupation of the educational visions in the UAE. However, the implications of an across-the-board and unplanned educational policy are formulas for

serious implications. The deficiency of consideration of the consequences of imposing a policy without consulting the involved individuals can be problematic and chaotic. The bilingual education has been proved its advantages in fostering linguistic academic achievement (Ozfidan and Burlbaw 2016) by advancing learner's knowledge and skills which are sub-divisions of Krashen's theory of Comprehensible Input (Krashen 2013). Yet, this cannot genuinely be achieved when students' actual low levels in English is critical especially when they lack the basic skills to read and write in English; a significant and disregarded issue or unacknowledged reality that makes adopting the bilingual education policy in public schools in the emirate of Abu Dhabi feasible.

Conclusion and Recommendation

This study illustrated the issue of bilingual education in the context of UAE, which revealed that an extensive discussion to better comprehend its essence, significance and rationale is required. The advantages of bilingual education are unquestionable, however the conditions encompassing its implementation are disputable.

Considering the results, educational policy makers are encouraged to be aware of considering the educational, cultural and social context in Abu Dhabi and thus generate a new approach that considers student's level and social aspects. Having Emirati cultural-experienced policy makers generated a fresh one, guidance and continuous professional development of teachers, principals will be of a paramount significance. Opening canals for honest for honest and realistic discussions between teachers and policy developers must be a priority in all means. Having no new actions undertaken in the bilingual education program, students and teachers will not be able to reap the fruitful harvest.

Further investigation needs to be conducted in this field ;for example, longitudinal study to track participant's perception over a period of time will add more authenticity and effectiveness to the results of the study. It is recommended that the policy makers consider the results of the study to fine-tune the current educational policy to establish channels for communication between all those involved. Having enfranchised different perspectives, valuable opportunities for bridging gaps to have a better implementation of any policy will be attained.

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Appendix A

Policy 7110: Language of Instruction

PURPOSE

This policy establishes that instruction in all Cycles of Abu Dhabi Education Council (ADEC) public schools will take place in Arabic and English.

POLICY STATEMENT

1. Bi-literacy:

ADEC's intention is to develop bi-literate learners with academic proficiency in Arabic and English languages. To this end, ADEC schools shall be staffed with Arabic Medium Teachers (AMTs) and English Medium Teachers (EMTs), who will deliver instruction in Arabic and English, respectively, as outlined below.

2. Arabic and English Medium Subjects:

2.1. *Kindergarten:* In support of the implementation of the New School Model, students in Kindergarten (KG1 and KG2) will be taught by AMT and EMT classroom teachers. These teachers will work collaboratively to ensure that students meet the outcomes established in the New School Model curriculum in both Arabic and English. Recognizing that students may enter KG1 with limited English skills, the AMTs and EMTs will jointly assess students and plan accordingly to determine when and how Arabic and English language concepts and skills will be introduced. For additional language development support, all subjects should be co-taught by AMTs and EMTs, subject to staffing capacity.

2.2. *Cycle 1:* In Cycle 1 grades, the language of instruction will differ by subject. Arabic shall be the language of instruction for Arabic Language, Islamic Education, Social Studies/Civics, Art, Music, and Health & Physical Education which will be taught by Arabic Medium Teachers (AMTs). English Medium Teachers (EMTs) will provide instruction in English Language, Mathematics, and Science.

2.3. *Cycle 2 and Cycle 3:* In Cycle 2 and 3 grades which have implemented the New School Model, the language of instruction will differ by subject. Arabic will be the language of instruction for Arabic Language, Islamic Education, Integrated Social Studies, Art, Music and Health & Physical Education, which will be taught by subject area teachers. English Language, Mathematics and Science will be taught in English by subject area teachers.

3. Co-planning and Co-teaching:

In Cycles 1, 2, and 3, AMTs and EMTs are encouraged to engage in joint planning of curriculum units to facilitate the learning of concepts and skills across subject areas. Where lesson availability allows, AMTs and EMTs are encouraged to co-teach classes to provide additional language development support.

4. Integration of Arabic and English:

All teachers are responsible to support students' bi-literacy development within their subject area, particularly by introducing key terminology in both Arabic and English where possible. ADEC will provide training to support teachers in achieving this responsibility.

Appendix B

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Informed Consent Form for Educational Research Study

Title of project:

Bilingual Education between policy and implementation in the United Arab Emirates

Person in charge:

Ramia Dirar Musmar (PHD Candidate in the facuty of Education -TESOL)

Dear participants,

The following questions aim at investigating the perceptions of grade 10 and grade 11 public school English, Math and Science teachers concerning ADEC educational reform in one secondary girl's school in the emirate of Abu Dhabi. It additionally attempts to exploring the inconsistency, if any, between bilingual education policy and teacher's implementation in public school in Abu Dhabi and thus Suggest ways to better implement the bilingual education policy in public school in Abu Dhabi. It is hoped that the results of the study and the conclusions reached will contribute effectively and give stakeholders insights on how in-depth knowledge of the contextualized teachers' perspectives of the bilingual education policy in Abu Dhabi is a necessity to make its implementation sustainable and successful.

Your honest, objective and frank opinion will therefore be highly appreciated as a constructive instrument for the successful completion of the study.

Your participation in this research is confidential. Only the researcher will have access to your name and to information that can be associated with you. In the event of publication of this research or presentation of it at a conference or in any educational setting, the data will be anonymous and no personally identifying information will be disclosed. By signing here you are giving consent to participating in the study described above.

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By signing here you are giving consent to participating in the study described above.

_____   _____

Signature   Date

Researcher:

I certify that the informed consent procedure has been followed, and that I have answered any questions from the participant above as fully as possible.

Ramia Dirar Musmar   *March, 15, 2017*

Signature   Date

Research Questions

➢ Describe your experience teaching students who are non-native English speakers? (for EMTs only)

➢ How do you feel your own background affects your teaching of students who are not from your language background? (for EMTs only)

➢ Has the policy affected your role as a teacher?

➢ To what extent is the importation of foreign procedures effective to the students?

➢ To what extent is the importation of foreign procedures effective to the teachers?

➢ Were you consulted prior to the implementation of policy of bilingual education?

➢ Do you think that bilingual education program is the best way for a Arabic-speaking student to learn English?

➢ Does bilingual education (a) ultimately help, (b) ultimately harm Arabic students?

➢ Do you think Arabic-speaking students should be taught basic subjects in their own language while they learn English, or should they be placed in all English-speaking classes? why?

➢ Do you think the emphasis should be to encourage students to enter English-only classes as quickly as possible?

➢ Do you think the emphasis should be to maintain the Arabic language and culture of the children?

➢ What are the objectives of bilingual education from your perspectives?

Snapshot of performance in mathematics, reading and science

Countries/economies with a mean performance/share of top performers above the OECD average
Countries/economies with a share of low achievers below the OECD average

Countries/economies with a mean performance/share of low achievers/share of top performers
not statistically significantly different from the OECD average

Countries/economies with a mean performance/share of top performers below the OECD average
Countries/economies with a share of low achievers above the OECD average

	Mathematics				Reading		Science	
	Mean score in PISA 2012	Share of low achievers in mathematics (Below Level 2)	Share of top performers in mathematics (Level 5 or 6)	Annualised change in score points	Mean score in PISA 2012	Annualised change in score points	Mean score in PISA 2012	Annualised change in score points
OECD average	494	23.0	12.6	-0.3	496	0.3	501	0.5
Shanghai-China	613	3.8	55.4	4.2	570	4.6	580	1.8
Singapore	573	8.3	40.0	3.8	542	5.4	551	3.3
Hong Kong-China	561	8.5	33.7	1.3	545	2.3	555	2.1
Chinese Taipei	560	12.8	37.2	1.7	523	4.5	523	-1.5
Korea	554	9.1	30.9	1.1	536	0.9	538	2.6
Macao-China	538	10.8	24.3	1.0	509	0.8	521	1.6
Japan	536	11.1	23.7	0.4	538	1.5	547	2.6
Liechtenstein	535	14.1	24.8	0.3	516	1.3	525	0.4
Switzerland	531	12.4	21.4	0.6	509	1.0	515	0.6
Netherlands	523	14.8	19.3	-1.6	511	-0.1	522	-0.5
Estonia	521	10.5	14.6	0.9	516	2.4	541	1.5
Finland	519	12.3	15.3	-2.8	524	-1.7	545	-3.0
Canada	518	13.8	16.4	-1.4	523	-0.9	525	-1.5
Poland	518	14.4	16.7	2.6	518	2.8	526	4.6
Belgium	515	19.0	19.5	-1.6	509	0.1	505	-0.9
Germany	514	17.7	17.5	1.4	508	1.8	524	1.4
Viet Nam	511	14.2	13.3	m	508	m	528	m
Austria	506	18.7	14.3	0.0	490	-0.2	506	-0.8
Australia	504	19.7	14.8	-2.2	512	-1.4	521	-0.9
Ireland	501	16.9	10.7	-0.6	523	-0.9	522	2.3
Slovenia	501	20.1	13.7	-0.6	481	-2.2	514	-0.8
Denmark	500	16.8	10.0	-1.8	496	0.1	498	0.4
New Zealand	500	22.6	15.0	-2.5	512	-1.1	516	-2.5
Czech Republic	499	21.0	12.9	-2.5	493	-0.5	508	-1.0
France	495	22.4	12.9	-1.5	505	0.0	499	0.6
United Kingdom	494	21.8	11.8	-0.3	499	0.7	514	-0.1
Iceland	493	21.5	11.2	-2.2	483	-1.3	478	-2.0
Latvia	491	19.9	8.0	0.5	489	1.9	502	2.0
Luxembourg	490	24.3	11.2	-0.3	488	0.7	491	0.9
Norway	489	22.3	9.4	-0.3	504	0.1	495	1.3
Portugal	487	24.9	10.6	2.8	488	1.6	489	2.5
Italy	485	24.7	9.9	2.7	490	0.5	494	3.0
Spain	484	23.6	8.0	0.1	488	-0.3	496	1.3
Russian Federation	482	24.0	7.8	1.1	475	1.1	486	1.0
Slovak Republic	482	27.5	11.0	-1.4	463	-0.1	471	-2.7
United States	481	25.8	8.8	0.3	498	-0.3	497	1.4
Lithuania	479	26.0	8.1	-1.4	477	1.1	496	1.3
Sweden	478	27.1	8.0	-3.3	483	-2.8	485	-3.1
Hungary	477	28.1	9.3	-1.3	488	1.0	494	-1.6
Croatia	471	29.9	7.0	0.6	485	1.2	491	-0.3
Israel	466	33.5	9.4	4.2	486	3.7	470	2.8
Greece	453	35.7	3.9	1.1	477	0.5	467	-1.1
Serbia	449	38.9	4.6	2.2	446	7.6	445	1.5
Turkey	448	42.0	5.9	3.2	475	4.1	463	6.4
Romania	445	40.8	3.2	4.9	438	1.1	439	3.4
Cyprus[LT]	440	42.0	3.7	m	449	m	438	m
Bulgaria	439	43.8	4.1	4.2	436	0.4	446	2.0
United Arab Emirates	434	46.3	3.5	m	442	m	448	m
Kazakhstan	432	45.2	0.9	9.0	393	0.8	425	8.1
Thailand	427	49.7	2.6	1.0	441	1.1	444	3.9

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TBLT in the Omani Classroom

Shatha Ahmed Hilal Al Khalili

The Britidh University in Dubai

Introduction

"Sharing is good, and with digital technology, sharing is easy" - Richard Stallman. Living in a world that changes constantly due to the dramatic developments in technology, a teacher; being part and parcel of the larger community, should consider modifying his/her teaching tools accordingly. One web-based recent tool is GoAnimate[1]. But, does it really foster sharing knowledge in the Omani classroom? In order to answer this question, and because task-based language teaching (TBLT) is, widely, accepted and practiced in the EFL Omani classroom, the researcher integrates GoAnimate with it. Therefore, the empirical study, in hand, aims at exploring the effects and challenges of integrating GoAnimate with TBLT in teaching an English writing lesson to a grade 11 Omani class. This qualitative study is organised into the following sections: Literature review, research questions, methodology, findings, discussion, conclusion, references and appendices.

Literature Review

Literature review is a fundamental section in any research as it provides a thorough review of the work done previously on general or specific aspects of the

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[1] GoAnimate is a web-based tool through which different animated videos and characters can be created online

studied topic (Berg and Lune, 2012). In this study, two pertaining general topics, which are task-based language teaching (TBLT) and multimodality, are looked into. When it comes to TBLT, specific topics like constructivism, cooperative learning, group dynamics and the affective filer hypothesis are reviewed because these topics form its basis. As for multimodality, it is crucial reviewing the current studies that are related to this approach because GoAnimate is one tool that serves under the umbrella of multimodality.

Task-Based Language Teaching (TBLT)

Van den Branden (2016) confirms that TBLT has become one of the most popular approaches to second and foreign language teaching worldwide. The following table simplifies the ideas of different researchers on TBLT, which are presented in Cook (2013) and Van den Branden (2016).

Task-Baed Language Teaching (TBLT)			
Definition	TBLT is based on students' use of authentic language in doing some meaningful tasks in the target language.		
Type of Approach	A student-centered language teaching approach		
Main Stages	Pre-Task	Task	Review
Teacher /Students Roles	TEACHER sets task	STUDENTS perform the task	STUDENTS review each other's work
Types of tasks (Prabhu, 1987)		Information-gap Activity	
		Reasoning-gap Activity	
		opinion-gap Activity	

The bases of TBLT are elaborated on in the following sections: Constructivism, cooperative learning, group dynamics and the affective filter hypothesis.

Constructivism

According to the National Research Council (2000) and Slavin (2014), constructivists believe that learning is the result of accommodation, assimilation and equilibration processes that take place in the human's mind. So, as Slavin (2014, p.234) explains, when learners confront new experiences, each learner uncovers and processes the information differently by "checking new information against old rules and revising rules when they no longer work". As a result, constructivism calls for student-centered approaches, in which pairing or grouping students plays a great role in providing them with the proper scaffolding support of one another. Additionally, students' "ownership of their knowledge is a key aspect of constructivist teaching" (Forawi, 2015). Therefore, to get learners to experience a meaningful, invaluable learning process and to make them gain long-term knowledge, pairs or groups should share their discoveries with other learners by reporting their work. This change in the learner's role has, spontaneously, led to the change in the teacher's role from that of an instructor to that of a guide and facilitator.

Cooperative Learning

Cooperative learning, which is a learner-centered approach, is the implementation of some teaching techniques that help students learn the subject, in hand, by putting them in small groups of individuals who support each other (Slavin, 2012). Cooperative learning is based on some specific ideas as Orlich et al. (2013) affirm. For instance, in this approach, small groups of three to four learners are required. Also, the interaction that takes place within the group facilitates students' learning. Moreover, a set of clear goals as well as specific roles of each member of the group is a key aspect that contributes to the success of the group as a whole. Recently, cooperative learning has become favourable in language classrooms. The studies of Cheng in 2014, Pan and Wu in 2013 and Tseng in 2014 declare that the learning

environment is improved when cooperative learning is practiced in the English classroom. Therefore, cooperative learning has become a leading approach in this area of study.

Group Dynamics

Kurt Lewin introduced the term group dynamics in 1947. As cited in Forsyth (2009), Cartwright and Zander (1968) define group dynamics as an investigation field that is devoted for the study of groups, their nature, their laws, their within interaction and their relationships with other individuals or groups. Additionally, Forsyth (2009, p.14) states that group dynamics refer to the processes through which people; whether groups or individuals, "act and react to changing circumstances". He, also, justifies that the interdependence between group members shapes the interactions that take place between them and influences the members' behaviour and attitudes towards each other. Furthermore, as different circumstances; be them optional or accidental, are behind those members grouping together, the change in one member will have an effect on the whole group either positively or negatively. In their studies, Poupore (2016) and Wentzel and Muenks (2016) conclude that positive group dynamics increase students' motivation and thus, their production. So, teachers should pay attention to students' interaction in their classes as it may reveal a lot about students' willingness to work cooperatively in their groups. Based on their observations, teachers should modify groups to foster students' motivation to the maximum.

The Affective Filter Hypothesis

Gass (2013) explains how Krashan's Affective Filter plays a key role in second language acquisition (SLA). He clarifies that when the filter is high, it hinders the effective processing of the comprehensible input by the Language Acquisition Device

(LAD) and this, in turn, prevents acquisition from taking place. On the other hand, when the filter is low, it facilitates the effective processing of the comprehensible input by LAD and this, consequently, fosters SLA. As a result, different variations in SLA exist among individuals due to the effects of the Affective Filter. Gass (2013) and Harley (2014) reveal factors such as, motivation, self-confidence, anxiety and attitude that contribute to the status of the Affective Filter and so, they affect students' performance. Therefore, different studies are conducted to explore the effects of those factors on students' language acquisition. For instance, the findings of Li, Gao and Zhang's study (2016), conducted in China, affirm that TED videos result in students' motivation and positive attitude towards the programme and thus, in their better performance as critical thinkers and creators. In contrast, the results of Fakeye and Ohia's study (2016) assert that writing anxiety leads to lower achievements in writing essays. So, teachers should reduce stress in the class to the minimum to obtain better writing results.

Multimodality

Oliver and Pritchard (2016, p.1611) state that multimodality includes the use of different modes such as, "textual, visual, aural [and] spatial" in classroom instruction. According to Lotherington and Ronda (2012), many teachers hesitate to adopt a multimodal approach to teaching because they are obliged to prepare students for standardized tests and therefore, they prefer working with paper. But, Oliver and Pritchard (2016), Skains (2017) and Vandommele et al. (2017) all agree on the positive influence of multimodality in the current EFL classroom. Furthermore, the findings of Lotherington and Ronda's (2012, p.114-116) two studies, in which multimodality is implemented, assure that it is fruitful to the extent that in one of those studies, the teachers admit "to astonishment at the accomplishment of children who were labeled

low academic performers". Moreover, in the same study, the students' work turns to be "interpretive, research-based and creative" and their learning is "collaborative" and "self-directed". Additionally, Berk (2012) highlights that the success of multimodality has a positive effect on the degree to which students' attention is grabbed. So, a multimodal approach is suitable for the high-tech students of today. Yet, it is important highlighting that like any other pedagogical tool, the proper implementation of different multimodalities, like GoAnimate, Moovly and PowToon, is a key aspect in turning them to effective ones.

Research Questions

1) What are the effects, if any, of integrating GoAnimate with task-based writing classes in the EFL Omani classrooms?

2) What are the challenges, if any, that face implementing GoAnimate in the EFL Omani classroom?

Methodology

The study, in hand, examines individuals; students, who live in or occupy a specific community; EFL Omani classroom, in order to explore a specific experience that they undergo; the integration of GoAnimate with a task-based writing class. As a result, an approach that is qualitative in nature best suits this type of study (Berg, 1998). The participants, instrument, and procedure of this study will be presented in the following sections.

Participants

The study is conducted in an average, grade 11, Omani EFL classroom located at a government school in Muscat. To begin with, the researcher attains the participants' written and oral informed consents. Bell and Waters (2014) assure that this is a key step in validating any research. (Appendix. A) demonstrates a sample of the teachers' informed consent while (Appendix. B) shows a sample of the students' informed consent. Next, convenience sampling, which is one method of non-probability sampling, is applied to select the participants; be them teachers or students. According to Gorard (2010) and Ritchie et al. (2013), in convenience sampling, the choice of the participants depends totally on their availability. So, in order to inspect the effects of integrating GoAnimate with a task-based writing lesson in the EFL Omani classroom on teachers' perceptions, 10 teachers are invited to observe and give feedback on the lesson. But, only 6 of them are able to attend due to their tight timetables. When it comes to students' perceptions on the use of GoAnimate in the EFL classroom, a large class of 37 students is selected for the sake of this investigation. Yet, 3 out of those students are absent which leaves the researcher with 34 students only. Therefore, the total number of participants is 40. This number should be sufficient to collect data and to find adequate answers to this qualitative study's questions.

Instrument

There are two main tools that are used to gather data in this qualitative research: focus group interviews and self-observational data. As for the focus group interviews, as suggested by its name, it is one type of interviews, in which the researcher interviews the participants in groups (Creswell, 2014). The researcher makes sure that these interviews attain minimal bias by conducting them in two phases. In stage one, the students are interviewed in their focus groups of 4 or 5 at the school's resources room. This should allow them to speak their minds because teachers are not around. In stage

two, the researcher invites teachers for Arabic coffee and dates during the English group's meeting period and conducts the focus group interview at the same time. Additionally, those interviews take place as soon as possible after the lesson because the immediate gathering of data should help the teachers and students in remembering the important details of the lesson. Also, the interviews are audiotaped to allow the researcher to transcribe them on some forms that are designed by the researcher herself (see Appendices. C-P). When it comes to the researcher, as she was there and then, her observations should not be neglected. Consequently, self-observational data is also gathered. Again, the researcher takes notes whenever possible during the lesson as well as directly after it to obtain "more accurate and complete data" as Gass and Mackey (2007, p. 62) justify (see Appendix. Q).

Procedure

The researcher designs a female GoAnimate character called 'Awash', whose role is to co-teach a narrative writing lesson along with the researcher herself. 'Awash' takes responsibility of introducing the lesson's aims, telling a lead-in story, setting the groups, distributing roles among group members, and giving instructions to students. This character is interactive as she addresses the researcher by her first name and asks her about the students' performance as well. Also, a GoAnimate video story is created and shown to students in the pre-task activity. Students' narrations will depend totally on their understanding of this story. Prezi is used to deliver the lesson because it is easier having all the GoAnimate videos gathered in one file[2]. Yet, the researcher will only focus in her analysis on the GoAnimate videos as this is the target of the study in hand. As 'Awash' is doing most of the teaching, the researcher's role is more as a guide

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[2] Please check the following link for the GoAnimate videos:
http://prezi.com/ysl5o4mi5tjv/?utm_campaign=share&utm_medium=copy

and facilitator who makes sure that students understand 'Awash' well. The class is taught in two continuous lessons; around 90 minutes. During the lessons, the researcher observers the teachers and students and takes notes, which is possible because 'Awash's' role is dominant. After the class, two sets of focus groups' interviews are performed. To begin with, the researcher interviews the students in focus groups of 4 or 5. Then, she interviews the English teachers who have attended the GoAnimate lesson. Audio recording of students' and teachers' focus group interviews is important in order for the researcher to have access to these recordings later on and to write notes. These notes along with the researcher's notes are a rich source of data for the researcher to analyse.

Findings

By colour-coding the gathered data, specific aspects that can be grouped according to specific themes stand out (Creswell, 2014). As a result, the analysis section, in this study, is built thematically to cover the most distinguished aspects from the collected data. The table below illustrates the colour-coding categorization that is used in this study for the different analysed aspects.

Colour-Coding Categorization Reference		
Category		**Colour**
Teacher's Role		
Cooperative Learning	Setting Group Work	
	Group Dynamics	
The Learning Environment		
Students' Learning		
Class Size		
Possible Challenges		

Teacher's Role

During the focus group interview, the teachers, highlight that GoAnimate helps in minimizing the teacher's talk time (TTT) when one of them says that GoAnimate "reduces the teacher's effort in speaking". Another teacher adds that GoAnimate "reduces the teacher's talking time and makes the students more attentive" (see Appendix. N). On the other hand, none of the teachers and almost none of the students see in GoAnimate a possible substitute for the human teacher in the EFL classroom. But, what is the teacher's role as perceived by the interviewed teachers and students? Well, teachers believe that the teacher's role should be one of a "guide" who "assists the students" and "helps clarifying things if needed" (see Appendix. P). As for students, they affirm that the "human teacher" is crucial because he/she "understands them and their feelings", "discusses" with them, "makes sure that they understand the lesson", "checks students' mistakes and checks the programme as well" (see Appendix. G).

Cooperative Learning

Setting Group Work

The interviews reveal that all teachers believe that GoAnimate helps in setting the groups effectively and quickly. Additionally, they find distribution of roles using GoAnimate "interesting" and "clear" (see Appendix. H). The researcher's self-observational notes, also, bring to light that by the time the GoAnimate character 'Awash' counts till 10, 6 groups of fours and 2 groups of fives are already formed (see Appendix. Q).

Group Dynamics

During the focus group interviews, two of the students declare that the most interesting part of the lesson is watching the videos "then discussing together" or "then writing the stories" (see Appendix. F). A teacher, also, states that GoAnimate "encourages the students to work in groups and help each other" (see Appendix. I). Furthermore, the process through which 'Awash' assigns the roles to group members is effective because students know exactly what they need to do in their groups; whether leading, recording, reporting, timing or facilitating others (see Appendix. Q).

The Learning Environment

Self-observational notes highlight that students seem happy and excited about presenting their writings. Also, students seem eager to predict the other groups' narrators. Laughter and giggles take place in the production part of the lesson (see Appendix. Q). When interviewed, the students, positively, describe the lesson as "fun", "interesting", "new", "different", "unusual", "wonderful", "nice", "stressless" and "creative" (see Appendix. C). Furthermore, different students confirm that their learning is "better" and "faster" and that they "have learnt a lot in this lesson without even noticing" (see Appendix. D). Additionally, different students' responses in the focus groups' interviews reveal that GoAnimate contributes positively to grabbing their attention. One of the students comments that GoAnimate "doesn't allow us to day dream". Another student explains that this is due to the fact that GoAnimate makes the lesson "interesting" and not "boring". So, it is different from the traditional lesson in which the teacher "just keeps talking" (see Appendices. C-E). Moreover, teachers confirm that GoAnimate "draws students' attention to all details and keeps them attentive" (see Appendix. K).

Students' Learning

In their responses to the interview questions, students assure that GoAnimate fosters understanding of the lesson, in hand, due to different reasons. First, it gives clear instructions that are easy to follow. Second, it simplifies the information and new vocabulary introduced in the lesson. Third, it engages more senses in the processing of the given information, which leads to gaining long-term learning (see Appendix. D). Teachers' opinions on the effect of GoAnimate in increasing understanding agree positively with those of the students as they state that GoAnimate makes clearer the lesson's content. Additionally, two of the teachers relate the quality understanding of students to the fact that students "are involved" (see Appendices. J & O). Additionally, according to the researcher's self-observational notes, all groups present their stories to the rest of the class and thus, they are able to achieve this goal successfully within the time allocated (see Appendix. Q).

Class size

According to the teachers' responses in focus groups' interviews and the researcher's self-observational notes (see Appendices. K & Q), GoAnimate works well in this large classroom of 34 students. Some teachers affirm that GoAnimate works even better with such large classes. They claim that GoAnimate is effective with large classes because it gets "students to work together", it "draws their attention to all details and keeps them attentive" and it "helps the teachers to organise their work". According to those teachers, it is clear that the class size has not hindered GoAnimate from "achieving the aims of the lesson".

Challenges

The teachers and researcher point out different challenges (see Appendices. L & Q) that may confront them when implementing GoAnimate. The most important challenge is that teachers "do not know how to design GoAnimate videos". Therefore, all teachers wish to get training on GoAnimate. Some other challenges include "lack of time" and that "it [GoAnimate] needs hard work and creative ideas". So, teachers admit that they may "do it twice a semester or three times". Another challenge is that "classrooms are not well-equipped to utilize GoAnimate". The last challenge, which is declared by teachers, is that "supervisors might see that we don't talk enough".

Discussion

Based on the research questions, the discussion of the study's findings is arranged into two sections: GoAnimate effects and GoAnimate challenges. The first section brings to light the effects of integrating GoAnimate with a task-based writing lesson in a secondary level EFL Omani class. On the other hand, the second section highlights the challenges that face this integration.

GoAnimate Effects

The findings of this study bring to light different aspects that are worth highlighting. To begin with, it is evident that GoAnimate, adequately, encourages the current role of teachers as guides and supports the vanishing of their traditional role as instructors by two means. They are reducing TTT and getting the students to become more involved in their own learning. One way of achieving effective involvement of students is by getting them to work in groups. Again, GoAnimate helps, beautifully, in meeting Orlich et al. (2013) and Slavin's (2012) specific ideas on the effective setting

of cooperative learning because the GoAnimate character succeeds in forming students' small groups efficiently. Also, it assigns specific roles to each group member effectively because it keeps giving instructions to students based on their roles in their groups. Furthermore, the data analysed reveal that GoAnimate leads to positive group dynamics, which totally agrees with Poupore (2016) and Wentzel and Muenks's (2016) studies' results on the importance of promoting positive group dynamics as this leads to increasing students' motivation and thus, their production. Therefore, the learning environment turns to a relaxing one in which students are highly motivated and engaged. Additionally, students learn "without even noticing" and this, in turn, implies that they are acquiring the language naturally. This, in itself, is of great value to language teachers. So, as the levels of motivation and interest are high and the levels of stress and anxiety are low, GoAnimate has led to similar positive results of Li, Gao and Zhang's (2016) study on TED videos. This, also, agrees with Gass (2013) and Harley (2014) ideas on the importance of considering the different factors; like motivation in this study, that contribute to the positive status of the affective filter. Furthermore, students realise that listening carefully to the GoAnimate character is fundamental to their understanding of the lesson. Otherwise, they will, most probably, miss some important information. Therefore, it can be said that the proper use of GoAnimate contributes, adequately, to grabbing students' attention and this agrees with Berk's (2012) study's results. Moreover, when it comes to students' understanding of the lesson, GoAnimate facilitates it in two ways. First, it helps students in understanding the given content by providing visuals that clarify new vocabulary. Second, it makes students more involved. Not to forget mentioning that the success of the lesson depends, to a great extent, on students' understanding of the tasks assigned by the GoAnimate character along with their effective cooperative work. Additionally, by presenting their

own work to the rest of the class, the students' learning experience turns to an enjoyable, meaningful and invaluable one. Therefore, it is clear that the use of GoAnimate in the EFL classroom aids the proper implementation of constructivists' ideas (Forawi, 2015). Finally, when it comes to class size, GoAnimate works well with large classes for several reasons. First, it gets the students to work, enthusiastically, in small groups. Second, it involves all students by assigning specific roles to them within their groups. Third, it saves time and thus, students have more time to share their work with the rest of the class.

All in all, it is clear from the findings of this study that all participants; be them the students, teachers and researcher, have positive perceptions towards integrating GoAnimate with task-based writing classes in the EFL Omani classroom. It is, also, evident that GoAnimate web-tool works, adequately, with task-based teaching in establishing successful cooperative learning that works effectively under the umbrella of constructivism. Therefore, the findings of the study, in hand, agree totally with the results of Oliver and Pritchard (2016), Skains (2017) and Vandommele et al. (2017) studies that highlight the positive role of multimodal tools in the EFL classroom. So, it can be said that GoAnimate can play a great role in the current EFL classroom if used properly.

GoAnimate Challenges

The findings of this study are, generally, in favour of using GoAnimate in the EFL Omani classroom, nevertheless, they imply some possible challenges that may affect this implementation negatively. To begin with, it is fundamental that teachers integrate GoAnimate appropriately to achieve their goals completely. Otherwise,

GoAnimate will lose its main value as a facilitator of students' learning. Moreover, some teachers may depend totally on GoAnimate and, thus, play their role as facilitators inadequately. Therefore, it is essential for teachers to understand that their role in the classroom is as crucial as ever and that this role is not to be replaced by GoAnimate. So, their support and affection are invaluable to students and a core aspect of the success of the EFL class. Furthermore, designing GoAnimate videos is time consuming. This makes it difficult for the Omani teachers; especially with their tight timetables, to find spare time to design those videos. This may result in those teachers giving up GoAnimate for the sake of preparing other materials that help preparing students for their standardised tests. As for those teachers who are willing to devote their time and effort in preparing GoAnimate videos, they may fall into the trap of the inappropriate designing or implementation of those videos in their classrooms. In order to overcome the previous challenges, teachers' training centres should play an effective role in designing programmes that cover the essential steps for designing GoAnimate animated characters and videos as well as the basic procedures for using GoAnimate effectively in the EFL Omani classroom. Another challenge that face teachers is a technical one. GoAnimate is a web-tool and therefore, connection to the Internet is needed in designing and presenting the GoAnimate videos. This narrows the number of rooms that can be used at school to two or three. Unfortunately, those rooms are usually busy and difficult to book. As a result, principles should allocate some of their schools' budgets, provided by the Ministry of Education, to fix secure Internet networks at their schools and to provide some portable projectors that teachers can use alternatively in their classrooms. Finally, with GoAnimate, teachers' worst nightmare can be traditional supervisors who are still attached to their traditional perceptions of teachers as instructors. Those supervisors should understand that from now on actions speak

louder than words in the Omani classroom. So, they should tolerate the fact that the teacher's role has changed from that of an instructor to that of a guide and that students' role has become dominant.

Conclusion

In conclusion, the findings of this study give adequate answers to its research questions. The integration of GoAnimate in the EFL Omani classroom, if applied correctly, increases students' motivation and, thus, fosters their learning. Additionally, the study highlights some of the challenges that face teachers in the implementation of GoAnimate in the Omani classrooms and suggests some possible solutions to overcome them. It is worth mentioning here that this study is done on a small-scale and therefore, the results of this study cannot be generalized unless further investigations are conducted. Therefore, researchers are encouraged to explore the effectiveness of integrating GoAnimate with other skills like reading, listening and speaking. Also, the same study should be applied in other schools in different parts of Oman because teachers' and students' exposure to technology varies according to their areas and thus, their perceptions on the use of GoAnimate may vary accordingly.

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Appendix. A

Date: **March, 12th 2017**

Teachers' Informed Consent Form *

The British University in Dubai offers a Master of Education (MEd) degree in different fields for interested students, teachers, and professionals in the United Arab Emirates. The master's programme is designed and developed in collaboration with the School of Education of the University of Birmingham, one of United Kingdom's leading schools of education. The offered MEd programmes are approved and accredited by the Ministry of Higher Education and Scientific Research in the UAE. As I am working on a research for my 'Second Language Teaching and Learning' module, your participation in this research is invaluable to me.

1. **Purpose of this Study:** The purpose of this study is to explore your perceptions, as teachers, of integrating 'Goanimate' video creator with task-based language teaching (TBLT) in teaching English to a grade 11, EFL Omani class.

2. **Statement of Confidentiality:** Your participation in this research will be handled with complete confidentiality and is used for the sake of writing a course research paper. In the event of a publication or presentation resulting from the research, no personally identifiable information will appear in any reports, articles or presentations. Anonymity will be maintained at all times.

3. **Authorization:** Participation in this study is completely voluntary. By signing this form I am attesting that I have read and understood the information above and I give my consent.

Participant Name: ___Nawal___

Participant Signature: ___Nawal___

Date: ___12th_March - 2017___

If you require any additional information, please don't hesitate to contact me at: 2014201171@student.buid.ac.ae.
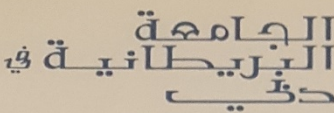
Yours sincerely,

Shatha Al Khalili
Masters of Education Student

* This form is a modified copy of Dr. Yasemin Yilidiz Informed Consent Form (The British University in Dubai)

Appendix B

Date: **March, 12th 2017**

Students' Informed Consent Form *

The British University in Dubai offers a Master of Education (MEd) degree in different fields for interested students, teachers, and professionals in the United Arab Emirates. The master's programme is designed and developed in collaboration with the School of Education of the University of Birmingham, one of United Kingdom's leading schools of education. The offered MEd programmes are approved and accredited by the Ministry of Higher Education and Scientific Research in the UAE. As I am working on a research for my 'Second Language Teaching and Learning' module, your participation in this research is invaluable to me.

1. **Purpose of this Study:** The purpose of this study is to explore your perceptions, as students, of integrating 'Goanimate' video creator in teaching English in your classroom.

2. **Statement of Confidentiality:** Your participation in this research will be handled with complete confidentiality and is used for the sake of writing a course research paper. In the event of a publication or presentation resulting from the research, no personally identifiable information will appear in any reports, articles or presentations. Anonymity will be maintained at all times.

3. **Authorization:** Participation in this study is completely voluntary. By signing this form I am attesting that I have read and understood the information above and I give my consent.

Participant Name: _Aisha_____

Participant Signature: _@isha_____

Date: _21 - 3 - 2017_____

If you require any additional information, please don't hesitate to contact me at: 2014201171@student.buid.ac.ae.

Yours sincerely,

Shatha Al Khalili
Masters of Education Student

* This form is a modified copy of Dr. Yasemin Yilidiz Informed Consent Form (The British University in Dubai)

Appendix C

Q1: Did you like the lesson? Why?

#	Response	#	Response
1	of course. It was funny and useful	18	yes, I liked it a lot because it was far away from the usual routine. I fealt that I was watching TV and not at school hah. It was stressless
2	yes, because we get a new lesson with different way and enjoy	19	yes, I liked the lesson and it was interesting and not boring like the other English lessons
3	yes, because we learn something new in it. The progrmme was very interesting and helpful for me.	20	yes, because it was different from the usual lessons
4	yes, it was a very interesting lesson and we have learnt some new things	21	yes, because it was different than what we are used to. It was one of a kind lesson
5	yes, it was quite interesting to use a new way to teach rather than the traditional way	22	yes, because it was fun
6	yes, I did.	23	yes, because it was different from other lessons and interesting as well
7	yes, it was something new and different from our daily routine	24	yes, it was interesting
8	yes, it was interesting and different from the rest.	25	yes, the way the teacher introduce the lesson was creative and interesting
9	yes, because it was something different; unusual	26	yes, because it's a different lesson and it was interesting
10	yes, it's a new method to receive information in an interesting and useful way	27	yes because I believe it attracts attention and doesn't allow us to day dream
11	yes, it was an interesting and wonderful lesson	28	yes, I discovered sometihng new, the programme. It wasn't a typical boring lesson
12	yes, it was a different but interesting lesson	29	yeah, I found it interesting cause it's a new thing. Special than normal boring lesson
13	yes, because it was different than usual	30	yes, it's a change from routine and a new interesting way to teaching
14	yes. It was very short not as our real English class. There, the teacher keeps talking	31	yes. I like it
15	yes, but I would like to watch future videos about countries... something more challenging!	32	yes because of the new idea of presenting the lesson
16	yes, it was a nice and light lesson. It was stressless	33	yes, it was interesting more than the lessons we are used to
17	yes, I liked the lesson a lot and I hope I do it again	34	groupwork because it's fun and the discussion taking place is better than the normal boring routine

* Each number represents a different student from the class

(Appendix. D)

Q2: Do you think that using 'Goanimate' helped you to understand the lesson? How?

#	Response	#	Response
1	yes, it make us more active with the teacher	18	yes, it helps a lot because it delivers the information in a very easy and simple way and quick too. Also, I have learnt a lot in this lesson without even noticing that.
2	yes, because the 'Goanimate' make the lesson fun and explain the lesson by simple way.	19	yes because the brain can understand better like this because what I saw matches what I have heard and what I have tried to do
3	yes, because the programme is organised and it have many things to interest the students	20	yes, because it is supported by videos and sometimes stories
4	yes because the video makes the lesson simple and short and this help some students to understand better the lesson	21	yes, because I think the information sticks in your head better when there are more activities and videos
5	yes, because it grabs more attention towards the speaker and her speech (Awaswh)	22	I would understand either using the programme or by the teacher herself
6	yes, because there are some hard words in English that student can't understand it. So, the programme makes the word easier.	23	maybe from using the stories and videos
7	yes, it was interesting so we focused on the lesson. Having a normal lesson is sometimes boring.	24	yes, by showing other ways to understand the lesson
8	yes, by watching the video, the events of the story were more understandable	25	yes when you see characters act out the lesson as a story it helps remembering it
9	yes like some of the students don't give attention to the teacher because she just keep talking so maybe a video will attract them	26	yes, because this programme is one of the things which help students to understand lessons quickly
10	yes, of course. By watching videos, information is learnt better and faster by all students	27	yes because videos stick in our heads better
11	yes, it's great having some videos that help students understand the lesson	28	yes ... it's better to see actions because you understand them
12	yes, because the videos help in understanding the lesson and becoming interested and not feeling bored	29	yes it could. It would be helpful for the teacher, it saves time and stucks more quickly in the mind
13	yes, it makes the inforamtions easier to understand	30	yes, they were talking fast so I didn't hear all the words. But, I think the stories and characters make us understand what's going on more
14	of course yes. Sometimes we feel boring but when we use the technology, it will help us to be more attention.	31	yes, it is. From the drama
15	yes, it helps a lot. It is better than many other methods used by other teachers because the topic is difficult	32	yes because it describes the lesson clearly and it is fun way which make the student be interesting on the lesson
16	yes, it makes the lesson little bit easy	33	no
17	of course because it is a new way for understanding the lesson	34	no because the teacher sometimes expalins things more to the students who didn't understand some parts

* Each number represents a different student from the class

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(Appendix. E)

Q3: Do you like using technology in the classroom? Why?

#		#	
1	yes, because the usual learning (book only) make us bored.	18	yes, because it helps in delivering information faster and better
2	sometime not always because some of the student don't like this thing	19	yes, I love that because it adds fun and attracts attention which makes me focus better
3	yes, sometimes not always because some of students don't ike this things	20	yes, nowadays, the society and students are modern and so the lessons should also be modern and not traditional. Otherwise, lessons will be boring. This programme attracts attention well
4	yes because it changes the mood of the lesson and this helps the student to understand the lesson better	21	yes, because I'm a visual person and watching videos makes it easier to understand and technology offers that
5	yes. Again, using a new and modern way of teaching is much better than the traditional way	22	yes, because it's interesting
6	yes, because it's fun, helpful and more easier for the students and the teacher.	23	sometimes because it helps us to understand informations
7	yes, it helps us to use different senses. We listen, watch, think … etc.	24	yes because we can enjoy the lesson and can get more information
8	yes, to change the routine	25	yes, I find it interesting and it makes everyone focus
9	yes. As I said something unusual	26	yes, because it's interesting and we get fun together
10	yes, because it changes the lesson's mood from the traditional, boring lesson in which hwe sleep to a more interesting one. Yet, not always.	27	yes because it makes understanding the lesson easier
11	yes because it makes the lesson interesting and it helps understanding and it is exciting	28	yes because there is always something interesting when it comes to technology
12	yes, it helps the students to like the subject and to be creative and to participate better	29	yes, especially for grammar lessons
13	I'm not sure if I'll answer this by yes or no. Technology maybe just a helper, not the main explainer	30	yes, I can understand and imagine correctly the lesson
14	sometimes	31	sometimes to change routine
15	yes, it's interested. But, again, it depends on the topics chosen	32	yes because it's a great way to make the student in love with the lesson or be more interested on it
16	sometimes. It depends on the lesson	33	yes it kept me focussed
17	I like it because it makes the lesson more easy and suitable and easy to understand it quickly	34	yes to change the routine

* Each number represents a different student from the class

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(Appendix. F)

Q4: What was the most interesting part of the lesson? Why?

#	Response	#	Response
1	the competition of time when 'Awash' told us to arrange the groups in 10 second	18	watching some videos
2	watching the videos because the videos help the student to understand the lesson	19	when watching the videos because it makes me more involved with the video and I understand better
3	watching the movies and the last part of the lesson.. Hah Thank you teacher	20	watching the presented videos
4	the whole lesson because the teacher is the one who made the lesson interesting along with the use of the programme	21	the videos because its fun
5	interacting in general with the teacher in general was quite interesting	22	when the story began because it was funny
6	when the story began because the presentation of the story was interesting	23	the videos because it was funny
7	watching the short film. Stories always get the attention from the listener.	24	the videos because it's interesting way to understand
8	watching the video and answering the related questions with my group. I enjoy these things!	25	the progamme
9	guessing what will happen in the story and team work	26	the most interesting part is watching videos then discussing together
10	presenting the information as a video is interesting and useful	27	working in groups
11	the stories. They were short and awsome because their topic is interesting too	28	watching the video because it was interesting and short
12	the videos presentation because it help understanding the lesson and make us more excited	29	watching video. It's the time to listen and relax
13	the stories, I think. It help the informations to stick in our minds	30	the stories, because it's fun and I can listen carefully without feeling bored
14	it was interesting when we heard about Awash story	31	
15	Gifts distribution and that the teacher is smiling	32	watching the video then writing the stories.
16	gifts distribution	33	listening to the story
17	the part that we sat as a group. It was the most interesting part.	34	working in groups and discussing in groups is better than the usual routine

* Each number represents a different student from the class

(Appendix. G)

Q5: Can 'Goanimate' replace the teacher in the English classroom? Why?

1	no	18	no, because she checks students' mistakes and checks the programme as well because technology sometimes makes mistakes
2	no because it is better to be a teacher because some of student don't understand	19	not really. Ms. Shatha in this lesson completed the role of the video as she made sure that we understand everything presented
3	no, because it is better to be a teacher because some of the students don't understand	20	sometimes because it explains everything by sound and pictures but it need the back up of the teacher sometimes
4	not in everything. Sometimes, the teacher is needed to explain unclear points and not the programme	21	no. I believe it can help the teacher but not replace her
5	No, it's most important for the students to find someone to talk and interact with personally, I believe	22	not really because technology can be boring sometimes and maybe we will have technical problems that may cancel the whole lesson
6	of course not. The programme only helps the teacher but not replacing her	23	no, Maybe it will help her, but I don't think it can replace her
7	it can help, but replacing the teacher is a bit hard.	24	no. I think that the teacher can deliver the information better than the programme to the student
8	maybe!	25	no, even though I think it's a great idea but it wont be as effective as a teacher. Teachers could use them as a form of help.
9	no, because sometimes the student cant understand something so who will tell the meaning	26	no because teacher helps students and makes sure that they understand the lesson
10	of course not. The teacher is the core aspect and no programme can replace him	27	No
11	no, because the teacher completes the role of this programme by checking students understanding and making sure that they understand	28	I'm not sure, because it has everything. It is like a real teacher in a screen
12	no, because the teacher's explanation and her comments on some things help students understand the lesson better	29	I don't think but it can help her to match her points. I would be thankful if teachers would use this way. Lessons will be more exciting and interesting
13	no, nothing can replace the human teacher	30	no because sometimes the teacher discusses with us
14	actually, not because students need a teacher who understand them and their feelings	31	no it can't because the teacher knows more than the programme
15	alternatively with the teacher. It reduces the pressure on the teacher	32	I don't think so. It have to be a teacher in the classroom. The 'Goanimate' is not enough
16	no, because she have to explain the lesson for us; that's her job	33	yes, it did everything the teacher does
17	sometimes, but not always because the teacher is the main person that could present and show the main idea	34	no because the teacher sometimes explains things differently to get a student to understand

* Each number represents a different student from the class

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(Appendix. H)

Q1 Which of these parts of the lesson were presented effectively using 'Goanimate'? Please justify your answer.

Section	Teacher	Yes/No	Justification
aims	1	Yes	Perfectly presented and set.
	2	Yes	Because students were able to list those aims.
	3	Yes	Clearly presented and this shows by asking the students aims.
	4	Yes	Clearly presented . It's a new technique to present the aims and it is very interesting.
	5	Yes	Watch a video.. Ummm. Write a story… tell a story. Very clear.
	6	Yes	You started by Goanimate telling the students what to do, then they said it themselves
warm-up (lead-in)	1	Yes	An interesting video - clear - using a funny character made it even more interesting
	2	Yes	The students were lead effectively to the story style of writing… they used their guessing techniques and observed the tense
	3	Yes	by using short video - it helped students in guessing and in identifying the tense used in stories
	4	Yes	it made the students get familiar with the aspects of the story in an interesting way.
	5	Yes	It made it easier for students to understand what she is a personal narration
	6	Yes	They got to learn better what's the meaning of narrative writing and the important elements of a story.

Section	Teacher	Yes/No	Justification
Setting groups	1	Yes	Shown clearly and applied well by the students.
	2	Yes	A very good technique for setting the groups.
	3	Yes	a good idea for students as this technique help students form their groups
	4	Yes	a good idea to form the groups. The students got the idea and worked fast to form their groups.
	5	Yes	For narrative mainly, I feel it always works. Students love to share ideas abd the outcome will be interesting.
	6	Yes	I like it when 'Awash' counted till 10 to give them time to organize their groups.
Managing groupwork	1	Yes	Well-done in an organised way using envelopes. The funny character was giving instructions while the teacher was going around and distributing the envelopes. That was time saver.
	3	Yes	I think I like the idea. Distributing the roles was very clear and interesting.
	4	Yes	I think I liked the idea of distributing the roles among the students.. Umm. Very clear and interesting
	5	Yes	It made it easier for each student to know clearly what she is supposed to do within her group
Pre-task activity (watching a video - A Nightmare!- and answering related	1	Yes	Well-chosen and fosters creative and imaginative thinking
	3	Yes	It's a good idea because as … said, it helps students getting a clear idea of what they are going to do in their groups.
	4	Yes	a good lead-in as it gave the students a clear idea of what they are grouped to write about.
	5	Yes	It was helpful guiding students to what to do.

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(Appendix. I)

Q2: Do you think that 'Goanimate' has made the class more interesting to students?

Teacher	Yes/No	Justification
1	Yes	A new way to experience.
2	Yes	because it involved students in the process of learning.
3	Yes	It encourages the students to work in groups and help each other.
4	Yes	It made it very interesting, changed the routine and lessened the teacher's talking time
5	Yes	it does. It gives instructions in a very clear way
6	Yes	they are interested and surprised

(Appendix. J)

Q3: Does 'Goanimate' help students understand the lesson?

Teacher	Yes/No	Justification
1	Yes	It makes it clear and easy to achieve its purposes
2	Yes	because they are involved.
3	Yes	using different methods like videos and pictures help students understand
4	Yes	it did.
5	Yes	it helps especially the videos
6	Yes	it makes the lesson more clear and easy to follow

(Appendix. K)

Q4: Do you think that 'Goanimate' is applicable with large classes like the one you have attended?

Teacher	Yes/No	Justification
1	Yes	yess. A class with a large number is the bestin achieving the aims of the lesson
2	Yes	it is more helpful with big numbers to ensure that they become involved
3	Yes	better with large classes to get students work together
4	Yes	it is suitable and helps the teachers to organise their work
5	Yes	it helps because it reduces teacher talk time (TTT)
6	Yes	it draws their attention to all details, keeps them attentive

Q5: Do you think that creating 'Goanimate' videos is a challenge for you as a teacher?

Teacher	Yes/No	Justification
1	Yes	It's a creative work done by you.
2	Yes	a challenge as we can do it twice a semester or 3 times because of lack of time
3	Yes	yes. Because we do not know how to design GoAnimate videos
4	Yes	it might be at first but I think it gets easier with practice. And supervisors might see that we don't talk enough
5	Yes	it might be. Our classrooms are not well-equipped to utilize GoAnimate
6	Yes	I think it needs hard work and creative ideas

(Appendix. M)

Q6: Would you like to learn how to create your own videos using 'Goanimate'?

Teacher	Yes/No	Justification
1	Yes	I hope so
2	Yes	to apply it to our classes.
3	Yes	it will help me more than me doing the talking thing all of the time
4	Yes	definitely.
5	Yes	yes of course
6	Yes	it's a good way to change the way of teaching and make it more interesting

(Appendix. N)

Teacher	Yes/No	Justification
1	Yes	of course a it reduces the teacher's effort in speaking
2	Yes	it is time saving for the teacher.
3	Yes	yes.
4	Yes	as it reduces the teacher's talking time and makes the students more attentive
5	Yes	yes
6	Yes	since all details, instructions... etc will be within the video

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(Appendix. O)

Q8: Does ' Goanimate' videos help clarifying some new vocabulary words?

Teacher	Yes/No	Justification
1	Yes	a good way to gain words and use them in real situations because they are clearly clarified through the show. Loved the pronunciation of words
2	Yes	we can use it for this purpose.
3	Yes	when the students listen to the video that can help students to learn new words
4	Yes	it does. Because watching always instills new vocabulary more
5	Yes	yes
6	Yes	by repeating the words, saying them frequently... the pronunciation is also clear

(Appendix. P)

Q9: Can 'Goanimate' replace the existence of the teacher in the classroom?

Teacher	Yes/No	Justification
1	No	I don't think so. The teacher will be a guide a least
2	No	I think that the teacher's existence is important
3	No	the teacher helps clarifying things if needed
4	No	I don't think so. The teacher assists the students.
5	No	I liked the programme but I think the teacher's role is still very important
6	No	it helps but there will be a need for the teacher to guide them (students)

(Appendix. Q)

Stage of Lesson	Notes
Setting Group Work	Lovely! On time. 6 groups: 2 + 2 groups: 5
Group Dynamics	Effective- clear roles work well
Students' Presentations	WOW! All presented - :) - eager to guess charcters- laughing and giggling
Class Size	was not a problem
Possible Challenges	time consuming in preparation of videos, some teachers commented after the lesson that students seemed quiet but their production was loud, what would supervisors think

An Examination of Factors that make International Large-Scale Assessments Effective: A Case Study of Lebanon

Sandra Baroudi

The British University in Dubai

Abstract

This paper describes and analyses the need of consistently administering international large-scale assessments (ILSA) at Lebanese schools to support educational system improvement. Three main aspects were found to help a vulnerable and complex school system to nurture an assessment culture for better data-driven decisions making. Students' socio economic status, quality of human resources and materials, and language of instruction were the three main factors that can have an impact on student performance during these tests in any given context. Qualitative data was collected and results found out three other influential factors that are influencing the Lebanese educational context. Recommendations and limitations are further discussed.

Introduction:

Lebanon, a small geographically country (10,452 square Km) lies within it a variety of economic sectors, some of which are vulnerable and in need of major reform. These sectors are suffering since the end of the civil war in 1990 that lead to several political, economic and societal consequences (Van Ommering, 2011). The education sector, for instance, is suffering due to the lack of the governmental economic structure reform and the ongoing instability inside Lebanon (Van Ommering, 2011). Moreover, the recent war in Syria (a neighbouring country) increased the deterioration of the educational quality inside the country. With more than 1,500,000 Syrian refugees who sought shelter in Lebanon during the past five years,

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around 750,000 Syrian refugee children attend Lebanese schools. Neither the educational institutional policies nor the resources were prepared to face this challenge. Policy makers and educational leaders are aware of the broad curriculum challenges, insufficient budget allocation to education, limited ICT resources, low salaries given to teachers, incomplete process of the national baccalaureate tests, and so on (The Daily Star, 2015). However, policy-makers do not have the appropriate detailed data needed to preserve the cultural balance inside schools, meet students and teachers' needs, and ensure quality education to all. On one hand, these leaders are not educated on the importance of the use of technology tools to support their decision-making process on the national assessments to enhance the teaching instruction and curriculum (Osta, 2007). On the other hand, they lack awareness and knowledge on the necessity and consistency in administering the ILSA and the impact these can have on the improvement of their schools. ILSA proved to support countries understand their policies, programs, and practices in education when comparing their results with better performed countries (American Educational Research Association, American Psychological Association and National Council on Measurement in Education, 1999; Engel, 2015). ILSA can do that because they collect contextual information from teachers, schools and students related to their background, attitudes, and beliefs about a tested domain (Thomson, 2010) and because they inform schools and parents about what students can or cannot do in math, science, and language (Thomson, 2010). Therefore, this research aims at using the latest data of TIMSS (Trends in International Mathematics and Science Study) in 2015 to show Lebanese policy makers the urgency of consistently administering ILSA to understand the factors of strengths and weaknesses affecting Lebanese educational situation. In addition, this research will shed the light on the need of reforming educational policies by learning from the best practices of other countries such as US and Europe. The literature below will discuss in details how countries can benefit from ILSA and learn from the best practices to enhance

schools performance. It will also highlight the Lebanese educational challenges and how they can be improved by learning from the lessons of other countries on ILSA.

Key words: Assessments, International Large- scale assessments, TIMSS, Lebanese educational context.

Aim of this study:

The aim of this study is to investigate the perspectives and understandings of Lebanese policy makers on the factors that influenced students' academic performance on TIMSS and how they made use of these results to improve the educational quality in the country. To this aim, in depth understanding will be sought in relation to these questions:

1- What are the common factors that most influence student achievement on tests?

2- How do Lebanese policy makers see similarity of these factors to their own context?

3- Are there any other factors that influence student achievement on tests that are related to the Lebanese context only?

4- How is Lebanon benefiting from the results of these tests to improve the education quality?

2. Literature review:

Assessments are tools for learning about curriculum, teachers' instruction, if students learnt what has been taught. They can diagnose students' problems or students who need to be in special programs. To do so, teachers are expected to be professionally developed and experienced on how to use them inside the classroom (Gipps, 1994). Classroom assessments as well as other standardised tests such as international and national assessments are beneficial for educational improvement when they are aligned with the curriculum (Orlich, Harder, Callahan, Trevisan & Brown, 2013). National assessments specifically give teachers

detailed information about their teaching methodology and how they can improve it. In Lebanon, similar to other countries, there is still a challenge on how to best use the data resulted from national and international large-scale assessments (ILSA) for schools improvement (Osta, 2007). In the US, for instance, a data management system was developed for this purpose and for monitoring student performance (Gipps, 1994). Therefore, the literature presented below will discuss three main concepts. First, it will define the international large- scale assessments and their purpose, then it will show the lessons learnt from these tests, and third it will present the challenges of the Lebanese educational sector and how it be improved by making benefit from ILSA results of the country in TIMSS.

2.1 International large- scale assessments (ILSA) definition and purpose*:*

ILSA are standards referenced tests to assess a student or groups of students' performance level according to the international standards (American Educational Research Association et al., 1999). They are effective measures of where students stand in a particular subject as a particular point of time as per national or international standards (Orlich et Al., 2013). They represent powerful policy tools to reform the educational system (Engel, 2015) and hold schools accountable for the education it provides (Orlich et Al., 2013). ILSA provide schools with a broad assessment of students' performance and capabilities by comparing with school, regional, and international percentiles. Although ILSA are highly depended on in developed countries, they are not properly used in the war conflict countries and developing countries such as Lebanon due to other priorities. The developed countries and specifically US, Europe, and Pacific Rims, are benefiting from ILSA results to improve the educational quality sector as per the international standards and ensure competitiveness (Lemke, Hoerandner, & McMahon, 2006; Reynolds, 2010; Engel, 2015). In Spain, for instance, PISA acts as a powerful tool for redefining curriculum standards and reforming policies (Engel, 2015). However, what works in Spain doesn't necessary work for others. That is why, countries participants must

choose the test that is mostly relevant and applicable to their context to reflect real student learning. Hence, it is important to understand the social, economic, political and other factors that can affect students learning and achievement on tests to be able to interpret the results accordingly and take good measures of improvement.

Countries can choose various types of ILSA to measure student achievement in relation to the content and skills, as long as these tests are relevant to the national standards and context. Among the PIRLS (Progress in International Reading Literacy Study), PISA (Program for International student assessment), and TIMSS (Trends in International Mathematics and Science Study) this study will focus only on the latter because it was the only ILSA administered more than once in Lebanon. TIMSS assesses the curriculum and knowledge of students in mathematics and science learned concepts for grades four and eight. It is funded by the U.S department of Education, the National science foundation, the World Bank, the United Nations Development project, and participating countries and it is administered every four years in between 38 and 52 voluntary participating countries (Bybee, 2007). Students participating in these tests are selected randomly.

Consistently implementing various types of ILSA will provide teachers with a comprehensive understanding about their curriculum and their teaching methodologies in comparison with other countries (Bybee, 2007). In addition, results of these tests will help teachers align their instruction to nurture students' problem solving skills and other 21st century skills, and inform policy makers on their policies gaps and how to improve them (Mandinach & Honey, 2008) but without falling into the trap of teaching to the test only (Lemke et Al., 2006). This is a real challenge that many educators face and find hard to overcome. Not only this, but also many more challenges and lessons will be discussed in the section below to assist with the understanding and development of a theoretical framework of the factors contributing to the success or failure of countries on these tests.
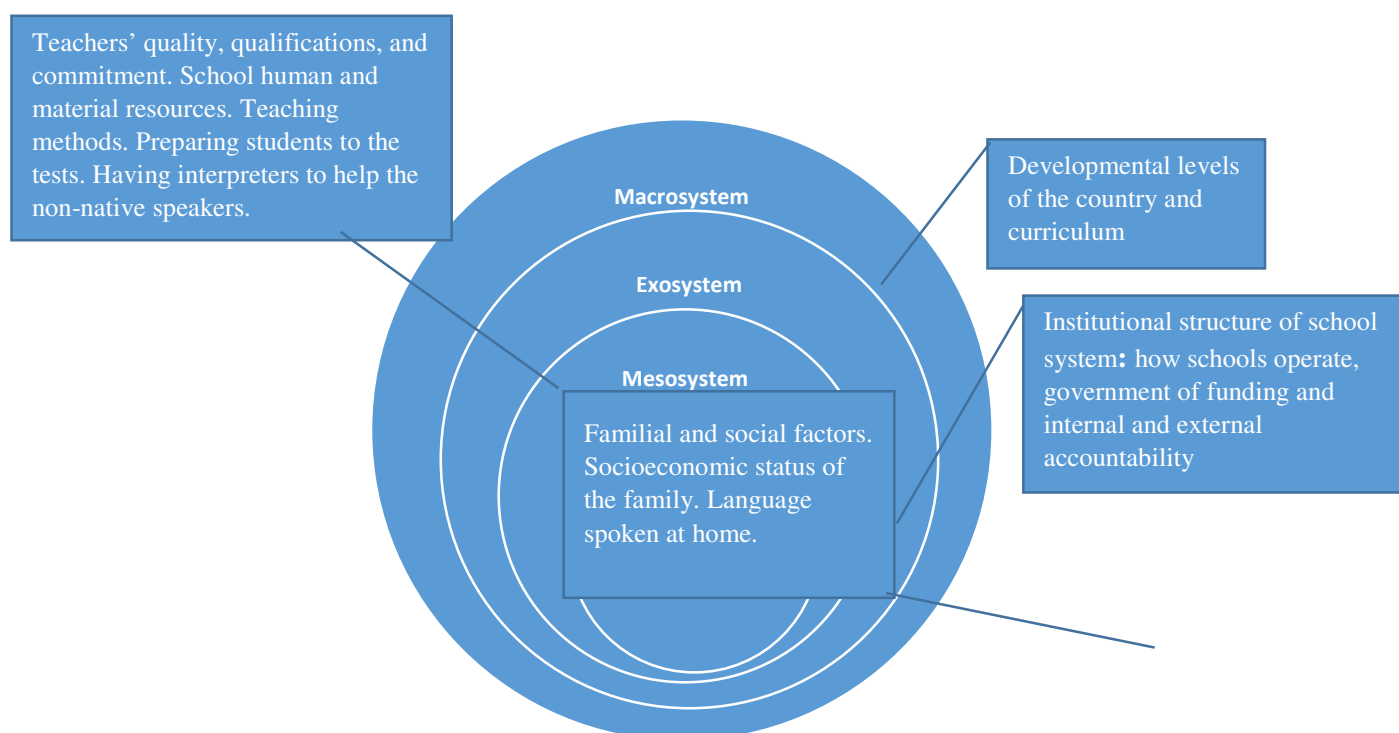
2.2 Lessons learnt from International assessments:

Countries learn from their own experiences as well as from others to thrive and develop. Specifically in education, countries aim to be among the top in providing the best quality of education that will prepare students to be successful in workforce market and drive the economy forward. Many factors are related to the success of the education sector while ILSA are one of many. It is a fact that these tests give a picture of student academic achievement but this latter is correlated with many factors. Using Brofenbrenner's socioecological framework (Bronfenbrenner, 1992) these factors are divided into four systems based on the manner in which they affect the student. Microsystems are the factors that affect the way a child physically grows in his social environment (Bronfenbrenner, 1992). In this case, they represent the familial and social factors and socioeconomic status of the family that proved to be directly related with student's performance in tests (Bybee, 2007; Tomul & Çelik, 2009). In another words, parents work status and occupation, their educational level, immigration background and language spoken at home are factors directly correlated with how student perform on a test (Tomul & Çelik, 2009; Woessmann, 2016). On the mesosystems, teachers' quality, qualifications, and commitment as well as school resources (Woessman, 2016) are seen as direct interactions of the microsystem of a child (home) with another environment (school) that will, as well, influence his/her performance on any type of tests. Moreover, and on the same level, better student achievement is related to the level of teaching methods (Woessman, 2016).

Traditional teaching styles improve overall skills, factual knowledge and solving of routines problems, but in a 21st century the modern teaching practices are more needed to improve reasoning skills, critical thinking, and contextual problem solving skills. Preparing students to the tests is also another factor that will reflect real students learning. Therefore, students must

be oriented to the style of questions and the method to answer multiple –choice questions as a short practice test before giving them the real one. Many schools revise the subjects with the students before the test if the test was aligned with particular curriculum, and in case of where the test wasn't given within the examinees native language, schools must employ interpreters to facilitate the testing process (American Educational Research Association et al., 1999). On the broader social, political and economic conditions (exosystems), the institutional structure of school system such as how schools operate, government of funding, internal and external accountability can play a big role on influencing student's academic achievement and therefore his/her performance on ILSA.

Finally, on the macrosystems the developmental levels of the countries (Tomul & Çelik, 2009), the political and economic stability, the curriculum (Woessman, 2016) are important factors on student and school performance. Figure (1) below will clearly show these levels and within

Teachers' quality, qualifications, and commitment. School human and material resources. Teaching methods. Preparing students to the tests. Having interpreters to help the non-native speakers.

Developmental levels of the country and curriculum

Macrosystem

Exosystem

Mesosystem

Familial and social factors. Socioeconomic status of the family. Language spoken at home.

Institutional structure of school system: how schools operate, government of funding and internal and external accountability

Fig 1: Levels of factors that affect students' achievements on tests based on Bronfenbrenner socioecological framework (Bronfenbrenner, 1992).

them the factors that influence student achievement on tests. Hence, to make the right decisions,

policy makers must be looking at all these factors and evaluate their direct relationship with student performance on tests. Policy makers should have the statistics related to the differences in students' population, the socio economic status of parents, and quality of human resources and materials before making any decision. Interpretations of tests results must analyze these statistics over years to understand the real learning of students and capabilities on these tests. Here comes the responsibility of countries to prepare and qualify people who administer and interpret the test taking into consideration the context information of students and convey the results clearly to stakeholders.

All these factors mentioned above determine how well a student will perform on a given test similar to ILSA. On the other hand, other factors proved not to be correlated with student's achievement on tests such as the expenditure per student and number of students per class (Woessmann, 2016). These two findings are very important for our study since Lebanon has very limited budget consisted per student and is struggling with extra size classroom. These two factors and more are further investigated to see whether they have that influence or not within the Lebanese context.

2.3 Challenges of Lebanon educational context:

While Lebanon used to be known as the school of the Middle East, its educational sector is in danger. Lebanese educational leaders and policy makers recognize the challenges and gaps presented in the Lebanese educational services: They admit that public schools are low quality schools, private schools are not included in the education processes or taken care of by Ministry of Education and Higher Education (MEHE), and teachers and classrooms conditions are in a very bad shape (The Daily Star, 2015). Moreover, public schools are struggling a lot since they are unprepared to respond to the increase of Syrian students in the classrooms, as there are more Syrian students in these classrooms than Lebanese ones. The national curriculum hasn't

been updated since the year 2000, it is not aligned with the 21st century skills, for instance it lacks the ICT resources necessary to develop students' skills in technology and lacks qualified teachers to train students on ICT (Sarouphim, 2009). The official national exams for grade 9 and 12 are also another challenge to Lebanon's education sector. They are not completely related to the curriculum and do not develop students' analytical thinking or creativity (The Daily Star, 2015; Osta, 2007). And due to teachers low job satisfaction and low salaries (Mattar, 2012) their recent demonstrations in 2014 resulted in unmarking the official end of year national exams for the Brevet (grade 9) and Baccalaureate (grade 12) which had adverse effects on students who worked all year in order to obtain these certificates. Teachers' dissatisfaction is not only due to reduced lower salaries but also due to the quality of the teachers that are being appointed, the quality of students' socio economic status, the physical working conditions of the school buildings, and the principal leadership style (Mattar, 2012).

Teachers teaching style such as traditional teacher- centred methodologies and lack of relating theory to practice are not developing students' critical thinking, problem solving, or creativity skills (Osta, 2007) that are needed to be demonstrated on ILSA. Needless to say that students with disabilities and gifted are still marginalised in Lebanese schools due to lack of programs or diagnostic standardised tests (Sarouphim, 2009). As a result to these challenges and gaps, the MEHE priorities are redefined to fill out a gap after another but meanwhile is missing on the improvement of the quality of education. As a proof, the Lebanese students' achievement is dramatically decreasing when compared to their peers in MENA countries as well as internationally (The World Bank Group, 2006). This section presented the macro and exo systems that were nurtured from the challenges and gaps of the education sector and that might have a big influence on Lebanese students' achievement. The section below will show the factors related to the meso and micro systems and to which extent policy makers in Lebanon should consider all four systems influence on students' capabilities before making any decision.

2.4 Meso and micro factors that influence student achievement in Lebanon

Students' academic achievement in Lebanon is steadily dropping comparing to their worldwide peers. In the international student achievement tests in math and sciences (TIMSS) in 2003, 2007, 2011, and 2015 for grade 8, students score was below the international average of 500 (TIMSS & PIRLS, 2015) . In math, Lebanese students scored 449 in both 2007 and 2011 and 442 in 2015 (TIMSS& PIRLS, 2015). Even in science, Lebanon's score is very dramatic. It scored 398 in the latest TIMSS science results in 2015. Many factors are related to this drop and non-improvement of results. This section will explain how the meso and micro systems in Lebanon created factors that had directly influenced the dramatic drop of Lebanese students' achievements on international tests.

In Lebanon, only one institution "ECRD" (Education Center for Research and Development) is assigned to carry out the TIMSS assessment in schools. The ECRD is sponsored and overseen by His Excellency the Minister of Educational and Higher Education. From an analysis made in 2006 about TIMSS 2003 results, it was found out that the major factors behind the poor achievements of Lebanese students in TIMSS were similar to the common worldwide factors identified earlier by Woessman (2016), Tomul, and Çelik (2009). In Lebanon, similar to the US and European countries, the socioeconomic status of the students, the educational level of the parents, and the language spoken at home were the main micro factors that had a huge impact on students' achievements (The World Bank Group, 2006). Advantaged families in Lebanon tend to speak at home foreign language (English or French) while disadvantaged ones speak only Arabic. Whereas the factors of the meso systems were mostly related to teachers qualification, language of instruction (Arabic or foreign), instructional practices, and availability of resources for instruction (The World Bank Group, 2006). In addition to these common factors shared with the US and Europe, other internal factors emerged considering the Lebanese educational context. These factors as per the World Bank Group report (2006) are

related to the schools' locations (schools who were located in urban areas performed better than the rural ones), teachers job satisfaction, students' absenteeism, instructional time, utilization of computers, teachers professional development, teachers pedagogical activities, principal experience, and finally the deficiency of sciences labs and equipment resources in many schools, specifically the public ones. These are reasonable and expected factors to see considering the challenges and gaps of the educational sector presented above. The critical political situation of this country makes it difficult for policy makers to agree on unified rules and regulations for the favor of the country and not to their own interests. Therefore, the role of interpreters of TIMSS results come at this point to make an extra effort in making meaning of the tests results to create an awareness and urgency for these leaders to take immediate action.

2.5 To which extent Lebanon can benefit from international assessments results:

To generate successful interpretations of results, interpreters must consider the society structure and measure achievement of all students from different background (Shohamy, 2001). Successful interpretations of results will support policy makers to issue policies and introduce new educational goals to serve the improvement of the teaching and learning (Shohamy, 2001) by holding schools accountable. Announcing results of tests publically is one way of holding government and schools accountable on controlling education (Lemke et al., 2006) whereas having similar achievement for poor and wealthy students on tests is another. In Lebanon, government is trying hard to keep control of education. For the past decade, the official national tests in Lebanon (brevet and baccalaureate) were evidence of action from the government to control the education and certify students or fail others (Osta, 2007). However, these tests as discussed above aren't necessarily reflecting real student learning and aren't a good measure for 21st century skills and capabilities but they still represent the single social order to parents

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in ensuring that schools and teachers are providing effective learning to their children (Shohamy, 2001).

Another use of international assessments is to limit the over- abundance of immigrants such as in the United States but it is not applicable in Lebanon where most immigrants are illegal Syrian or Palestinians refugees staying in Lebanon and attending Lebanese schools but unable to participate in any type of official tests because they don't have any legal papers. Moreover, technology- based tools and data systems, such as network infrastructure and online data, can be a good use for policy makers and educators to access data and analyse it to support instructional planning and respond to accountability if they are trained on how to read statistical data (Mandinach and Honey, 2008). In Lebanon, the lack of all technology based and network infrastructure resources in both private and public schools are not allowing educators and policy makers to benefit from online data and access applications for better school improvement (Nasser, 2008). On other hand, despite that the presence of ICT in schools was related with student achievement in the US (Mandinach & Honey, 2008), in Lebanon it was found out that there is no effect on student achievement in passing the baccalaureate exam (Nasser, 2008). If ICT existed, they were only used for instructional delivery. The mesosystems levels impacting student achievement seemed to have the biggest gaps in Lebanon. Filling these gaps, such as increasing teachers' salaries and strengthening human and material resources at schools, is fundamental towards increasing the academic achievement of students on tests.

The results of TIMSS over years as well as the national assessments tests both highlight the importance of an educational reform to the Lebanese policy makers to improve the educational quality and aim for a successful system. For a start, policy makers should act immediately to align the intended curricula with the taught curricula (Osta, 2007) and train old experienced teachers on the new teaching strategies that enhance students' motivation and engagement and develop their 21st century skills. Therefore, this study will investigate the understandings and

perceptions of Lebanese policy makers on the influential factors on student academic performance and whether there are other hidden factors.

3. Methodology:

This study is a case study to describe and analyze one single bounded unit that is in this case the educational sector in Lebanon (Merriam and Tisdell, 2016). Lebanese educational sector has many challenges and complexities, therefore the researcher chose this qualitative approach to make sense of the primary and secondary data and interpret the results in a meaningful way (Merriam & Tisdell, 2016) to understand policy makers perceptions and understandings towards the influential factors on students achievement on TIMSS. Hence, to seek comprehensive understanding of this social unit the researcher will investigate the influential factors that are mostly connected with the students' achievement on international assessments. Then the researcher will collect data from the single organization that administer the national examinations (official exams) as well as TIMSS in Lebanon (ECRD) to see if there are any other hidden factors and what are the actions taken for educational improvement.

3.1 Research Sample

Participants were purposefully selected from the single institution that administered TIMSS for the past years (ECRD). Participants were invited to participate in the study by a telephone call to their offices. Participants chose to answer the questions by emails instead of telephone or skype. When collecting in depth data, number of participants is not very important but it is suggested to range between 20 and 30 (Creswell, 2013). However, the researcher could not reach this number due to time limitation and because the researcher was not living in Lebanon during the data collection process. Three participants were interested in the study. They have cooperated among each other to provide the researcher with the answers needed. Hence, one email came back to the researcher that includes answers from all three participants.

3.2 Procedure

This study was conducted during the months of November and December 2016 as an assignment of the researcher courses for her PHD. Due to time limitation, the researcher wasn't able to pilot the questions or validate them. Because the researcher is not living in Lebanon, it wasn't feasible to make any face to face interviews with participants. The participants number was also very limited. The participants preferred emails communication on telephone calls. Therefore, the researcher sent by email the consent form (Appendix A) as well as the list of the open-ended questionnaire (Appendix B). Participants needed one hour to answer the questions. Participants did not sign the consent letter sent to them by email. Therefore, the researcher will refrain on mentioning their names or roles in the ECRD.

3.3 Data collection Instruments:

Online documents such as the World Bank Group report (2006), The Daily Star article (2015), and TIMSS conclusions and recommendations report (2011) provided the researcher with fixed descriptive objective information that offered an understanding about this topic and served in verifying the emerging hypothesis (Merriam & Tisdell, 2016). Therefore, the researcher did a fully extensive review of the World Bank Group report (2006) that analysed the TIMSS 2003 results for Lebanon, and the Daily Star (2015) article that discussed the challenges and gaps of the education sector presented by the MEHE, and the recommendations and conclusions of TIMSS 2011 results done by ECRD to be able to generate hypotheses and develop a theoretical framework of the influential factors in the US and Europe and compare them with the ones of Lebanon. Since the researcher is resident in another country and due to time limitation it wasn't feasible to make any face to face interviews. The participants did not admit telephone interviews or skype and they rather preferred email communication.

The online documents analysis served the researcher to create an open- ended questionnaire as a main instrument to collect the data. Emails were sent to participants to collect deep and

meaningful data. The open-ended questions are divided into six sections. Section A will collect information about the participant and the center (ECRD). Section B will seek information about the status of international assessments in Lebanon and TIMSS specifically. Section C will collect data regarding the students and schools that participated in TIMSS. Section D is about sharing the results with schools or stakeholders and making use out of them. Section E is collecting personal opinions about the factors influencing students' academic achievement. Section F to understand the lessons learnt and decisions or policies taken by Lebanese policy makers from the results of TIMSS over years.

3.4 Data Analysis

The researcher summarized the answers provided by participants into narrative texts to identify common themes, thoughts, and opinions. The researcher open coded the data to find categories or themes (i.e.: influential factors related to Lebanon – common factors- decision making). This process helped the researcher to make sense of the data. Then the researcher color coded the common themes, and arranged them in columns based on their frequencies. However, one open coded category (the influential factors in Lebanese context) was mainly focused on to see how it is understood by participants (Creswell, 2013). Then the researcher used the axial coding steps to determine the relation of different sub-categories that influence the main one (i.e.: The influential factors on students' achievement on TIMSS was the central category then the researcher found other sub-categories such as: ICT resources, teachers job dissatisfaction and teaching methodologies that are related to the central one and are influencing it). This analysis process was fundamental to understand the causes or conditions influencing this problem by connecting it with different sub-categories and come out with a meaningful story (Creswell, 2013).

4. Results:

The aim of this research is to investigate the perspectives and understandings of Lebanese policy makers on the factors that influenced students' academic performance on TIMSS and how they made use of these results to improve the educational quality in the country. To answer the four questions formulated for this study, the researcher collected data from the single organization that administered TIMSS in 2003, 2007, 2011, and 2015. Three participants worked together to provide answers to the open- ended questions. By summarizing and manually coding the answers, the researcher found out three main themes that are highly related with students' achievement on math and science in Lebanon. These themes as well as the sub-themes related to them are presented in table 1 below. In alignment with the literature review made above, these themes were seen among the most macro and meso system factors. Curriculum, teaching methodologies, and ICT resources were found to be the most influential factors on student achievement in Lebanon. Moreover, teacher's specialization and years of experience, language proficiency, and preparation for tests questions found out to have positive influence. Students taught by specialized teachers with more than 10 years of experience achieved better on TIMSS than teachers with less than 10 years of experience.

Math and science Curriculum	Weak and doesn't develop critical thinking or problem solving skills	Suspension of certain themes or concepts	Curriculum is focused on theory only without experiment and research work	
Teaching methodologies	Teachers lack experience on dealing with students questions	Lack of laboratory experiments or strategies to engage students	Lack of stimulating and challenging activities for gifted students	Lack of activities that relate curriculum with

			real life experiences
ICT Resources	Teachers are not integrating ICT resources with curriculum	Low interest of teachers to use ICT resources	Unqualified teachers to train students on using ICT resources

Table 1: Categories and sub-categories influencing students achievement on tests in Lebanon.

Other hidden contextual factors appeared to have high impact on students' achievements such as teachers' dissatisfaction in their career and gender of teachers. Teacher's dissatisfaction is an expected factor to have since it was identified earlier by Mattar (2012) as an influential factor in the Lebanese educational system, whereas teachers gender is a new finding to be highlighted in this study. Results showed that students taught by female teachers are achieving better than students taught by male teachers. While Female teachers showed to have greater workload and classroom stress from student behaviors, and lower classroom management self-efficacy comparing to male teachers (Klassen & Chiu, 2010), this seems not affecting students' achievement in Lebanon. We predict that Lebanese female teachers have a natural ability to nurture more than males and are able to comfort students during instability time. Moreover, results show a weak collaboration among teachers in discussing methodologies, trying new ideas, or even doing peer observations in classroom have an influence on students' performance. This is due to their low job satisfaction (Mattar, 2012) and can be also related to the ineffective leadership style of their principals. It was shown that when a leader is practicing effective leadership practices he or she will empower and motivate followers to be autonomous, collaborate, and share knowledge and experiences (Amoli & Youran, 2014; Pearson & Moomaw, 2005).

Participants in the ECRD were aware of the general and contextual factors that can have high impact on students' achievement on tests and are already taking actions in coordination with the MEHE. These actions are related to: (1) reconsidering the suspended objectives in the curriculum that are part of the intended curriculum of TIMSS, (2) making more studies and training on the effective use of ICT and how teachers can integrate them into curriculum, (3) conducting training workshops for teachers on how to construct test items based on objectives and how to evaluate them. These workshops will help teachers evaluate what students learned as per the intended curriculum and will train them on generating good questions on tests that require reasoning domain types of answers as per TIMSS framework. This is exactly what Osta (2007) recommended in her study for math curriculum alignment with examinations. In addition to that, results showed that there are differences in achievement of students from different background.

5. Discussion, limitations and implications

International large-scale assessments (ILSA) are a cost effective tool to serve policy makers create immediate policies and making educational reform for example changing teaching practices or introducing new ones (American Educational Research Association et Al., 1999). While Lebanon is failing in making use of its own official exams results in reforming the education (Osta, 2007), we argue that it will take time, efforts, and special skills for Lebanese policy makers to make useful interpretations of the results of TIMSS as a positive consequence to enhance teaching and learning inside schools. Therefore, the purpose of this research is to identify the international lessons learnt from ILSA and see how they differ from the Lebanese context. Similar to US and Europe (Tomul & Çelik, 2009; Woessmann, 2016) the most influential factors that are found in the Lebanese context were related to the curriculum, teaching methodologies and ICT resources. However, many others factors showed to have influence

within the Lebanese educational context and if improved the educational sector will definitely improve. These factors concerning teachers' specialization, years of experiences, teachers' job dissatisfaction, and lack of collaboration. Therefore, to make successful interpretations of students' achievement on TIMSS, policy makers must look first into these factors identified above and act immediately on improving them. To address all these factors, ECRD in collaboration with the MEHE and schools are recommended to redesign the math and science curriculum as per 21st century demands. Curriculum must be updated to fit the needs of students rather than be shifted to the tested topics only. Shortening the academic year had made a sever effect on the curriculum by making suspension of math and science themes. Therefore, policy makers must realise the effect of this decision and reconsider the suspension of these themes. Although the ECRD acknowledge these factors, little action is being taken. Moreover, rare cooperation is made with schools in this regard.

This research recommends teachers with little and long years of experiences to be trained immediately on modern teaching methodologies to fit new curriculum demands (Osta, 2007). Teachers need to be practiced on introducing activities that will engage students and teach them the value of science and math in their daily lives. ECRD is also recommended to train teachers on practicing TIMSS questions in their classroom by allocating time and aligning these activities with the curriculum. To increase the accountability level and engage all stakeholders in the educational development we recommend for ECRD to publically announce the results of TIMSS. This is a useful strategy that can be used to remind the government and stakeholders to take better control of education and pinpoint the factors of strengths and weaknesses affecting Lebanon's educational situation. Finally, Lebanon must consistently apply TIMSS to monitor students' achievement over time and see what policies need to immediately implement to prevent deteriorating quality of its educational system.

Time limitation might have hampered the data collection process. Future research are advised

to make face to face interviews or focus groups and collect more data from various participants.

Moreover, future studies are recommended to investigate how MEHE, ECRD, and schools are

working together for making the best use out of ILSA results. Principals and teachers views

could have been helpful for this type of study in understanding in depth how each of these

factors identified is influencing their students' achievement and what actions they are taking

independently. Finally, further research could investigate the reasons behind gender of teachers

influence on student performance and to which extent males can learn from their female peers

to better support student academic achievement.

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Appendix A

Consent form

Lessons learnt from international large- scale assessments results:
A case study of Lebanon

Dear Participant,

You are invited to participate in a research study about the lessons learnt from international assessments results and how Lebanon benefited from them to improve its struggling education sector. This study is being conducted by Sandra Baroudi, a Doctoral PHD student in Educational management and policies at The British University in Dubai. This study is one of the assignments required from the researcher to conduct for one of the PhD courses.

Background information:

The purpose of this research is to understand how a developing country facing many challenges and gaps in education can benefit from the lessons learnt of the other countries results in international assessments to improve its educational quality. Therefore, the study will attempt to answer the following questions: 1- What are the factors that most influence student achievement on tests? 2- How do Lebanese policy makers see similarity of these factors to their own context? 3- Are there any other factors that influence student achievement on tests that are related to the Lebanese context only? 4- How is Lebanon benefiting from the results of these tests to improve the education quality?

This research will be done by analyzing documents and interviewing the main organization CERD (Center for Educational Research and Development) that administered TIMSS in Lebanon. If given permission the researcher will interview principals and teachers in schools that participated in TIMSS 2015. The participants of this research were purposefully selected.

Procedures:

To gather the descriptive data you will be interviewed either by telephone or by email following a open-ended questions to reveal the contextual factors influencing students achievement on

tests and how is Lebanon benefiting from the results. Each participant will be interviewed only once, which will last approximately one hour. The interview will be audio recorded (in case by telephone). Follow up questions may be asked via e-mail or telephone.

Risks and Benefits of your participation in this study:

There are minimal risks associated with completing this interview. You might feel distressed when discussing the factors that affect student achievement and whether your institution is being able to take actions towards them or not. The interview will take approximately one hour and you will receive no compensation for participation in this research study.

Confidentiality:

If you agree that your name, your role, and the name of your institution to be mentioned, please tick the box below otherwise pseudonyms will be used for the participants and institutions name to keep confidentiality. Please also tick whether you agree that the researcher quote some of the answers if necessary. The recordings / emails and transcriptions will be destroyed at the completion of the study.

■   I agree that my name, my role and my institution or organization name will be mentioned in the study.

■   I agree that the researcher might directly quote some of my answers in the study.

■   I do not agree that my name, my role and my institution or organization name to be mentioned in the study.

■   I do not agree that the researcher directly quote any of my answers in the study.

Voluntary Nature of the Study:

The participation in this research will be voluntary and you may refuse to participate without any consequence. If you decide to participate, you are free not to answer any question or withdraw at any time.

Contacts and Questions:

The researcher conducting this study is Sandra Baroudi. You may ask any question you have at the moment. If you have any questions later on, you may contact Mrs. Baroudi on 971 50 283 6642 or at Sandra.kanaan@live.com.

You will be given a copy of this form to keep for your records.

Statement of consent

I have read the above information and I agree to participate in the study.

Date, signature and name of researcher   Date, signature, and name of participant

Appendix B: List of questions

Dear participant, after you have read and signed the consent letter, kindly answer the below questions to help the researcher understand from your own point of view how Lebanon is benefiting from the results of the international assessments such as TIMSS to improve educational quality in schools. These questions are divided into six sections. Section A: information about yourself and the center and Section B: questions related to international assessments and TIMSS specifically. Section C: information about students and school participating in TIMSS. Section D: is about how did you share the results with schools or stakeholders and how did you make use out of them. Section E: Your opinion about the factors influencing students' academic achievement. Section F: what are the lessons learnt and decisions or policies taken from the results of TIMSS over years?

List of Questions:

Section A: Introduction about yourself and the center

1- Can you kindly give a brief introduction about yourself?(name , your role in CRDP , since when did you join the center etc…)

2- To which extent the ministry is taking into consideration the findings and implications suggested in the researches done through your center ? pls give one example.

3- Do you engage teachers / schools in research ? if yes , please give one or two examples. If no , please say why ?

Section B: International assessments (TIMSS)

4- What is the status of the international assessments in Lebanon? (which tests are administered? are they administered every year? who is responsible for implementing them?)

5- Why did you choose TIMSS as a standardized tests to give to students not PISA or other tests?

6- Was the TIMSS administered in public or private schools or both ?

7- Please can you name some of these schools and their location?

8- In which language the test was given?

9- What solutions you provide to the students who have low proficiency in the language of the test?

10- What was the objective in administering this test?

11- What are the qualifications of the people who give the test to the students?

12- To which extent was TIMSS questions were aligned with the national curriculum?

Section C: Students and school participating in TIMSS

13- How did you select students who participated in the test?

14- What is the nationality of the students who did the test ?

15- Did you give practice tests to students to orient them to the style of questions before administering TIMSS? If yes who did this practice with the students? How long before the test?

16- Did the teacher revise with the students the subjects to let them be more prepared to the test? If not, please say why ?

17- What is the average of class size in these schools that participated in the test?

Section D: Sharing the results and making use out of them

18- How were you informed about the results of the test?

19- With whom the result were shared with?

20- Usually results for such tests dominate newspaper, why this isn't the case in Lebanon?

21- How did you convey the results to schools, stakeholders, or public?

22- Who analyzed the results and was the one analyzing them professionally prepared to do so?

23- To which extent you think TIMSS results reflected the real learning level of students?

Section E: Factors influencing students' academic achievement

24- In your opinion, what are the micro and macro factors that are affecting the low achievement of students on TIMSS?

25- Why do you think students did better in maths than science on TIMSS?

26- The Lebanese curriculum isn't updated since 2000, schools lack ICT resources and other human and material resources that will ensure that the 21st century skills are being taught to students. So how are you or the ministry planning to fill in this gap because if it won't be filled students' results on TIMSS or any other tests will still be low comparing to their global peers?

Section F: Lessons learnt and decisions or policies taken

27- What lessons did you learn from the results of TIMSS over years? And from the last one in 2015?

28- Did you take any action plan to address the weaknesses areas that TIMSS report identified towards students performance in math and science? If yes, please explain how and what procedures you took to implement this action? Did you implement it directly in schools or in the ministry?

29- Please explain in your opinion to which extent decisions makers are counting on international assessments results in forming policies?

30- By reflecting on TIMSS results what are in your opinion the policies or decisions that policy makers must urgently take to improve the education sector or services ?

31- Do you have any other information you would like to add in this regards?

Thank you for your time and participation

Sandra Baroudi

Changes in Grade 10 English Curriculum, Teachers' Perceptions of this Change and their Key Role in Curriculum Implementation

Soulafa Al Khatib

The British University in Dubai

Abstract

It is commonly known that curriculum is designed by specialists at a higher level while teachers only implement it. This qualitative exploratory research examined changes in grade 10 English curriculum in the United Arab Emirates (UAE), teachers' perceptions and experiences in curriculum change, their key role in implementing it, and the challenges they face. It investigated the gap between theory and practice in curriculum planning and implementation. Data collection method included lesson observation, post-observation discussion, face-to-face semi-structured interviews and document analysis. The results of the study indicated that isolation of teachers as stakeholders in curriculum planning affects curriculum successful implementation.

Introduction

Teachers as in any other profession need to constantly reflect on what they are doing to develop and improve their practices. Teachers need to use appropriate skills to adapt to the needs of the students they are teaching and the particular curriculum they are using.

The UAE like many other countries in the Arab region are moving quickly into modernization. Over the past 30 years, the UAE have moved to Western style educational approach, but still there are many gaps especially in methodological approach, curriculum implementation, instructional strategies and in particular in teaching English (Mograby 1999;

Taha-Thomure 2003). Researches done in 1999 resulted in criticism of the educational system in the UAE in particular teaching and learning strategies and inflexible curricula (Warne et. al 2006) which led the ministry of education (MOE) to develop their ambitious plan for reforming education 2020. Vision 2020 states "The focus will shift from teaching to learning, from teacher to the learner, from memorization to creativity, reflection, imagination and innovation. To attain this objective, continuous training for teachers and supervisors will be provided to change the traditional roles they play into more effective roles to promote, develop and instill the culture of innovation which is a societal ambition" (UAE Ministry of Education and Youth 2000, p. 87). The ministry of education has worked on changes in the curricula. One of these changes is grade 10 English curriculum.

This exploratory study has as a purpose to investigate the changes in grade 10 English curriculum, teachers' perceptions of the changes and their key role in the application and implementation of the new curriculum. The researcher worked on answering the following questions:

- What are teachers' perceptions of curriculum changes and are they aware of the changes done?

- What is teachers' understanding of curriculum in the UAE?

- How do they feel about the change and are they applying it properly?

- What challenges do they face in implementing the new curriculum?

"Curriculum planning can be seen as the systematic attempt by educationalists and teachers to specify and study planned intervention into the educational enterprise" (Numan 1988, p. 10). The main problem is the gap between theory and practice or application. The study will discuss the process taken by the ministry for changing the curriculum, the role of teachers in this process from teachers' perspectives and the gap between theory and practice.

Literature Review

What is curriculum?

In its broadest sense, curriculum is regarded as what should be done in a course of study. Sowell (2005) defines curriculum as what is taught as intended or unintended knowledge, skills or attitudes delivered directly in schools or other places. Tyler and Taba define it as a plan to achieve set goals, while Saylor defines it as a plan of setting learning opportunities to educate people. Jon Wiles and Joseph Bondi are more specific by considering curriculum as 4-step plan that include purpose, design, implementation and finally assessment (Ornstein & Hunkins 2009).

Illinois Center for School Improvement (2013, p.1) states that "Curriculum is defined as the proposed or planned content and sequence of studies, activities and experiences for student learning. Curriculum can be considered as the *what* and *why* of educational endeavours". Curriculum can be looked at as 3 main components: intended, implemented and attained (evaluated). The intended curriculum is the documents prepared by the ministry of education as to guide to what, how, why, how much and how often materials should be taught. The implemented curriculum is the actual classroom instructions. It is how teachers deliver the materials to be taught effectively, how long it takes them to cover what should be taught and what additional resources they use for delivery. Finally the attained curriculum tells about students' acquisition of what was taught from knowledge (Content), skills and values and how this is evaluated (Farah & Ridge 2009). This definition is the one the researcher will focus on later in the discussion of grade 10 English curriculum.

Curriculum Development in the UAE:

In 1953, Kuwaiti educational mission introduced formal education to the UAE. Later other countries like Qatar, Bahrain, Saudi Arabia and Egypt funded the opening of schools

that used curricula of the countries funding them. After the union, the UAE still didn't have an official curriculum until 1979 when the ministry of education launched the project of creating a national curriculum, but this curriculum didn't come to life till 1985. Since that time "curriculum" in the UAE is more referred to as the UAE textbooks. There wasn't any curriculum documents that outlined the curriculum goals, standards or content (Farah & Ridge 2009). Those were only seen recently after the launching of the UAE MOE vision 2020.

Textbooks are reviewed every five years. Recently, many books have changed and the ministry has been working on having more student-centred curriculum that promotes students' critical thinking abilities, innovation skills, life skills and communication skills especially in English language as well as preserving their national identity. This has been clearly reflected in the new curricula presented for students of grades 1, 4, 7, and 10 in Arabic, English, math and science in 2015-2016.

"Our nation will set and achieve increasingly ambitious educational targets. A progressive national curriculum will extend beyond rote learning to encompass critical thinking and practical abilities, equipping our youth with essential skills and knowledge for the modern world"- section 4.2 of the UAE National Charter 2021.

Curriculum Design and Development:

To meet the demands of the 21st century, curriculum in schools needs to change. Economy worldwide has changed from a manufacturing one to a knowledge –based one, so labour market has changed. To provide labours for countries with knowledge –based economy, school teaching must change so do curricula.

Before designing any curriculum, there are certain steps that need to be taken. First nation, society and economy needs must be considered because this curriculum will feed the

requirements of the labour market. Second, the view of the stakeholders, must be obtained. This is particularly important because many teachers feel frustrated by the curriculum because they have no knowledge about how it was set. They only apply it in their classes while they had no role in discussing what needs to be included in it, what learners actually need to learn or what system, procedure, content and resources must be considered. This usually leads to difficulties in applying it. Third, a clear framework must be designed. This is the pillar because it forms the standards, learning outcomes and key elements of curriculum. This is the main step to be done professionally to set basics for the implementation stage. Curriculum framework is done by group of subject specialists, policy makers and education consultants to ensure coherence in thematic approaches, relevance and development of subject knowledge and skills. Last is piloting and implementing the curriculum. First, there is a need to train people who will apply the curriculum before piloting an area of it and then evaluate after the implementation (Jones & Duckett 2006).

Ornstein and Hunkins (2009) specify 3 stages for curriculum planning: development, implementation and evaluation. They consider developing and designing the curriculum as a crucial and basic stage. "The idea is to show how curriculum is planned, implemented and evaluated, as well as what people, processes, and procedures are involved in constructing the curriculum" (Ornstein & Hunkins 2009, p.15).

MOE Planning and Development of English Curriculum:

How did the UAE develop the English curriculum? After reviewing the main document presented by the ministry of education as National Unified K-12 Learning Standards Framework 2014 and the request for proposal for the adaptation of International English Language Programs for grades 1-12 (2014) as well as grade 10 old and new English books, clear discrepancy was noticed.

To achieve the ambitious vision of 2021, the ministry of education developed a set of K-12 English standards. Setting the standards was the foundation step to meet the goals that were stated in the proposal for adapting and customizing the English language resources. The goals focused on cultural awareness, national identity, the quality of learning and qualifications that meet international and local expectations, enhance 21st century skills and support students to attain a minimum score of 5 on IELTS (Ministry of Education[2] 2014).

How did the standards develop?

A team of UAE English language experts with ministry staff worked on existing UAE English standards and K-12 English standards from different countries like Australia, UK, New Zealand and the Common Core State Standards of the USA, in addition to English specification for PISA international assessment to draw a new K-12 English standards for the UAE. They organized the content into 4 domains as listening, speaking, reading and writing. Then to ensure progression with each grade and across grades, they developed the strands which are the key topics within the 4 domains, and then the standards which are the broad grade specific target objectives and finally the students' learning outcomes for each strand at grade or grade –specific expected learning outcomes (Ministry of Education[1] 2014).

The ministry then set a request proposal for vendors to submit offers to adapt and customize the English curriculum. What was noticed is that the proposal document (2014) explained clearly that English language program has to be developed "...in line with the most recent up-to-date teaching strategies and approaches and in alignment with the Common European Framework of Languages" (Ministry of Education[2] 2014, p.4). Later they mentioned that the criteria for selection will be whether the resources matches UAE ministry standards for English Language which were mentioned earlier.

Here comes the discrepancy because UAE English standards are not the same as the Common European Framework of Languages (CEFL). When reading the standards, you can

notice many similarities but the structure of CEFL is easier than the UAE English standards. The later is more academic and more complex. CEFL is easier for teachers to understand while UAE English standards are more professional.

This is discussed for the following reasons:

- Even though standards provide clear guidance for curriculum development, they are useless if teachers do not understand them and translate them into practices in class instructions. Those standards should be seen in instructions, tasks and assessment.
- The new grade 10 English curriculum was designed based on CEFL which poses the question of teachers' knowledge of those standards and their role in translating them into instructions.
- Is the assessment provided by the ministry designed according to the standards set?

The ministry set a plan for implementation of change but didn't stick to it. The first change took place this year 2015-2016 for grades 1,4,7 and 10. This study will investigate material innovation of grade 10 new English curriculum compared to the previous one used based on the changes of standards previously discussed and teachers' understanding of the new curriculum and their perceptions of the change that happened.

Previous Studies:

Developing the curriculum is the first step cause there is a range of factors that affect its successful implementation and teachers are the key factor. A study done in the UAE by Tsoghik Grigoryan (2014) on the changes of grades 10 to 12 English textbooks revealed that teachers might be resistant to change because of lack of knowledge of what good strategies to use with the new curriculum and because of stress in handling new material they had no training or support about, in addition to the frustration of being excluded from the whole process.

Hardman and A-Rahman (2014) state that in a curriculum innovation teachers are the key players. That is why any change requires that teachers be fully aware of it and well supported and trained to achieve the intended curriculum. "Recognizing the key role that teachers will play in mediating implementation of the reform is vital to its success as perceptions and beliefs can influence and shape the meanings that teachers eventually attach to the new reforms and their acceptance and classroom implementation" (Hardman and A-Rahman 2014, p.262). Obaidal Hamid and Honan (2012) claim that curriculum innovations have limited impact on practices in classroom because of the curriculum designers failure to investigate teachers' actual practices in classes, their professional development needs, as well as their beliefs, understanding of the new curriculum and level of education, not to forget also the class size and the resources provided.

Whatever is the design of any new curriculum, researchers have discussed the importance of appropriate implementation because it depends basically on the degree of teachers' understanding of the curriculum policy and standards (Bantwini 2010; Smit 2005; Wang & Cheng 2008). Teachers design their classes and plan their instructional strategies based on their understanding of the curriculum, so any misperception of what the curriculum desires will have a tremendous impact on classroom learning (Shihiba 2011).

Other researches emphasize that teachers might fail in implementing curriculum changes when they are not provided by support needed to accept changes and adapt to them during the implementation phase Brain, Raid & Boyes 2006; O'Donnell 2005). Policy – makers and curriculum designers assume that teaching practices will follow the policy (Kirgogz 2008), while this actually is not the case cause lack of clear understanding of policy and standards will lead to false implementation of strategies that will not serve in attaining the learning objectives.

Methodology

The researcher has adopted a qualitative exploratory interpretive approach to probe into grade 10 English teachers' perceptions of curriculum change, how they adapted to the change and the actual application. The purpose of the study is to investigate the changes in grade 10 English curriculum and teachers' perceptions 0f this change, how they understand it, how they adapt to it and what challenges they face when curriculum changes.

In the attempt to answer the research questions stated earlier, the researcher began with a qualitative research stage to discover the views of the participants (Creswell 2014). The findings of this study can be used later to expand the research into a follow-up quantitative phase with a larger sample. The research used exploratory interpretive approach because it "allows the researcher to approach the inherent intricacies of social interaction, to honor complexity, and to respect it in its own right" (Glesne 2011, p.25). Data collection method depended on lesson observations, post observations discussion with teachers, face-to-face semi-structured interviews and documents analysis. Probing into the issue through different lenses allow for better understanding.

This methodological triangulation allows for checking of the reliability and validity of lesson observation data. The interview questions were open-ended to allow for freedom and less restrictions. To have in depth understanding of the important aspects of the curriculum like standards and context, different curriculum documents, materials and textbooks were reviewed. The data was collected over a period of one month which has caused some limitations for the findings.

Sampling and Location:

The study was conducted in a private school that follows the Ministry of Education curriculum in the Emirate of Dubai. The participants were a purposive sample of 5 grade 10

English teachers (2males and 3 females) who taught the previous grade 10 curriculum and are teaching the new one during the academic year 2015-2016 when data for this study was collected. All teachers are bachelor degree holders in teaching English language and literature. Each of the teachers had at least 5 years of teaching experience and some had more than 20 years. The participants were chosen through purposiveness and accessibility because of the limited time, the researcher had to work with teachers easily reached and there are no limitations in working with them. This might be a limitation to publish the findings.

Lesson Observations:

Each teacher was observed 2 times from the end of the class to avoid disturbance. The rationale behind observing the teachers 2 times is to minimize the researcher's indirect pouring of own beliefs on what is observed in class. Notes were taken during observations and a lesson observation form filled that focuses on teacher's knowledge of content and standards, instructional strategies, teaching and learning activities and teacher-student interaction.

Post-Observation Discussion:

After lesson observations, the researcher discussed with the teachers some important moments in the lesson. The focus was on incidents that revealed teachers' understanding of the new curriculum and their role in applying a student-centred approach and the communicative approach in teaching the language in their lesson, how students take part in the lesson as active learners and how teachers facilitated better participation.

Interviews:

Face-to-face semi-structured interviews were conducted to probe into teachers' understanding of the new curriculum and their perceptions and beliefs about the change. Cohen et. al (2007) restate Tuckman's (1972) description of interview that it allows to get into a person's head to check his/her knowledge and understanding of the topic discussed, his/her

preferences and his/her beliefs. This description makes it the best tool to be used in this study to reach teachers' perceptions. Interviews are usually described as being biased (Creswell 2014) because interviewer and interviewees might unconsciously influence data by imposing their own beliefs (Cohen et al. 2007). To ensure validity and reliability, the researcher recorded the exact words of the participants and asked them to reread their answers and sign on them.

Document Analysis:

The researcher reviewed curriculum documents that contributed to his/her in depth understanding of change such as English Language Standards set by the Ministry of Education in 2014, the Common European Framework of Reference for Languages(CEFRL or CEFL), the old grade 10 English series "On Location" and the new one "Gate Way to Success".

Findings:

When reading through the different curriculum documents the following was noticed:

1. The National Unified K-12 Language Standards Framework 2014 that was prepared by a group of UAE English language experts was drawn from previous UAE English standards and K-12 English standards of UK, New Zealand, Australia and the new Common Core State standards which is not what was used by the new English curriculum. The new curriculum depended on the CEFL (Common European Framework for Languages). The Common European Framework describes in a comprehensive and simple way what is expected from language learners to acquire in order to communicate using a certain language and the knowledge and skills they need to develop to effectively use the language. Table 1 shows examples of listening standards and objectives for grade 10 from the ministry document (2014). Table 2 shows examples of listening standards and objectives taken from CEFL. What is noticed is that the students learning outcomes in CEFL are simpler and use

comprehensive and user-friendly language that is easy for teachers and students to understand and makes it easier for teacher to communicate it to students to know what is expected from them to achieve. The "I can" statement used in CEFL help students do self-evaluation. The terminology of the ministry document standards is more complex and congested.

Table 1:

Domain	Strand	Standards	Student Learning Outcomes
(G10.1) Listening	(G10.1.1) Comprehension Skills	(G10.1.1.1) Listen to extracts of authentic material, lectures, presentations and dialogues of about ten exchanges in different accents, (e.g., British, American, Australian, and Canadian) on concrete and abstract topics delivered at normal speed; apply various strategies of listening and comprehension skills	(G10.1.1.1.1) Understand the main points and details of recounts, commentaries, and commercials on familiar and unfamiliar topics, evaluating the reliability of each resource; watch and discuss English language television and movies. (G10.1.1.1.2) Understand the main points and details of narratives, anecdotes, and short stories; follow the dialogue and discern speaker's moods, relationship, and intentions (G10.1.1.1.3) Understand the main points and details of descriptions of events, people or places; note details and logical progression (G10.1.1.1.4) Summarize points of agreement and disagreement, and evaluate a speaker's point of view, reasoning, and use of evidence, identifying any irrelevant exaggerated or distorted evidence; identify the tone, mood, and emotion conveyed in the oral communication

Source: Ministry of Education [1] (2014)

Table 2

	B1	B2
Listening	I can understand the main points of clear standard speech on familiar matters regularly encountered in work, school, leisure, etc.	I can understand extended speech and lectures and follow even complex lines of argument provided topic is reasonably familiar.
	I can understand the main point of many radio or TV programmes or current affairs or topics of personal or professional interest when the delivery is relatively slow and clear.	I can understand most TV news and current affairs programmes. I can understand the majority of films in standard dialect.

Source: council of Europe (2003).

2. The new curriculum was designed following clear process of setting standards and objectives which are the key elements in piloting and implementing it. The components of stakeholders consideration was not fully met because the designers considered the knowledge-based economy needs of the society and the opinion of the education experts while neglecting the opinion of teachers who are in the field and who will implement the new curriculum.

3. The previous curriculum was developed by the Curricula Development Center at the Ministry of Education. The curriculum was top down and allowed no active role for the teacher. It was built on 5 power standards as called which focused more on reading and writing skills and designed for the curriculum itself not drawn from other standards. It used the "Cognitive Academic Language Learning Approach" (CALLA) which encompasses listening and speaking skills to focus more on reading and writing (Bye and Chapman 2009). CALLA develops students' awareness of learning processes and learning strategies. It develops students' language through content-area approach. Students' metacognitive awareness allows them to use learning strategies that assist

them in retaining and comprehending language skills and content (Chamot 1999; Chamot & O'Malley 1987).

4. The new curriculum used CEFL standards. It works on the integration of the 4 skills and designed to lead students to succeed in their further study, daily life and work. The curriculum was designed based on a more communicate language teaching approach which means learning to communicate through language. It helps learner to focus on the language as well as the process of learning and links it to their actual world (Ellis 2008). It promotes communication through active learner-centred approach using whole class, group work or individual work. Learner-centred approach considers acquisition of communicative and linguistic skills needed in real world, less than the totality of language (Numan 1988). Assessment now is more aligned with the curriculum standards. Students are assessed on how they use their learning strategies and skills in different situations and how they apply their problem solving and critical thinking skills. This was lacking in the previous assessment which limited students' responses and didn't allow for detailed analysis of students' areas of weaknesses.

Findings based on classroom observation and teachers' post observation discussion and interviews highlighted the following:

1. Curriculum according to teachers' understanding is defined as goals and textbooks.

2. When investigating teachers' understanding of the theoretical principles and framework of the new curriculum, it was noticed that teachers had no knowledge of the curriculum standards and based on their answers and lesson observations, it was clear that this wasn't even reflected in their classes. Teachers did communicate lesson objectives to students but didn't enhance self-evaluation. They also didn't know what best strategies to use or what good teaching is, based on the new curriculum which added to their frustration.

3. Although the curriculum is designed to integrate the 4 language skills in a thematic approach, it was noticed that they were taught in isolation.

4. Teachers had positive feelings about the changes in the curriculum at the beginning but felt frustrated about the pressure they were exposed to, to finish the syllabus before final exams.

5. On average, students' interaction occupied around 30-35% of the period time and even though students were sitting in groups, minimum cooperative work was noticed. Teachers rarely summed up what was covered during the lesson to consolidate attained objective.

6. Teachers felt challenged by the new curriculum especially because they didn't receive training about the design and best implementation of it. To few of them, this has led to uncertainty about their abilities and frustration.

7. Teachers also complained about the challenge of having large classes with mixed abilities students and the lack of resources provided for better implementation and catering for different students' learning styles.

8. They also complained that as private schools following the ministry curriculum, they weren't treated like government schools which received training and all resources and support needed for the implementation of the new curriculum, as well as online resources and exam training for their students

Recommendations:

The findings raised many issues that need to be considered:

1. The new curriculum was designed following clear structure and framework but part of the second step specified by Jones and Duckett (2006), which stated the need to consider stakeholders view, was missing cause only experts views were taken into

consideration without consulting teachers through a survey or an online feedback process campaign that the ministry can launch.

2. Even though teachers had positive feelings about change, change needs to be managed taking into consideration teachers' involvement in the whole process of curriculum development and implementation because they are the key players in implementing innovation.

3. To reduce stress, frustration and resistance to change, appropriate training and support must be provided to teachers before and during piloting and implementation. Teachers need to be knowledgeable about the curriculum framework and all theoretical principles underpinning it.

4. Findings of this study can't be published. First, because of the small sample number used and second, it is a first phase that can be expanded to a quantitative research with a large sample of teachers from public schools, who had more access to support and training related to the new curriculum and then either confirm or contradict the findings of this research.

Conclusion

In a nutshell, the findings of this study support previous studies that confirm the key role of teachers in appropriate and successful implementation of curriculum innovation (Hardman and A-Rahman 2014; Bantwini 2010; Smit 2005; Wang & Cheng 2008) and the need to adopt a clear process in planning, designing and implementing any new curriculum. Teachers need to have their impact on planning and receive enough support that develops their knowledge of the theoretical framework of the new curriculum and best strategies needed for better implementation.

There is an urgent need that the ministry considers supporting private schools using MOE curriculum by providing them with the same training and resources they provide to the public schools and allows them to access the online resources and question banks which are restricted to public school teachers. Curriculum designers need also to consider the time frame for teachers' readiness to implement the new curriculum and sufficient time to try different strategies and adapt according to the reality in classroom and students' needs. To sum up, even if the findings match those of similar previous studies, a quantitative research that expand on the existing one should be done to confirm results.

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An Investigation of the Appropriateness of a Procedural Negotiated Syllabus for Adult Vocational Learners

Mohammad Assaf

The British University in Dubai

Abstract

This mixed-method study investigated the readiness of teachers and adult learners at a vocational centre in the UAE to implement a negotiated English syllabus. The study addresses two main questions. First, Are teachers and learners at the New Military Centre ready to implement a negotiated syllabus? Secondly, Does the negotiated syllabus implementation lead to improvement in learners' motivation? Results show the great potential of a negotiated syllabus in enhancing learners' motivation by making them part of the decision-makers' circle regarding the components of an intended English syllabus. On the other hand, learners, teachers and management systems face challenges that must first be overcome to succeed in implementing negotiated syllabi. The findings of this study support the value of involving learners in classroom decisions especially, which is expected to make them feel responsible for their learning. As a result, learners are likely to put more efforts in learning English.

Introduction

It is likely that negotiating classroom decisions, with regard to the components of an intended English syllabus, with learners may enhance their motivation to develop academically and

personally. Discussing this claim necessitates exploring the issue of empowering learners to be active participants in classroom decision-making (DM). Thus, it is essential to identify a syllabus that ensures learners' involvement in making decisions about what, when, why and how they are taught. It is equally significant to account for the learners' various needs as a reference point in designing that kind of syllabus.

The English department at the Vocational Education and Training Institute (VETI) – UAE, has tried different product-based syllabi. However, results have not met the benchmarks defined by the VETI. The VETI caters to those students who are disengaged from mainstream education through an alternative program of a vocational nature. It aims to meet the needs of the business market. The VETI follows the Australian competency-based framework implemented by the Australia's leading vocational education and training provider, Technical and Further Education (TAFE). Thus, the VETI places "an emphasis on what a person is able to *do* in the workplace, rather than what they *know*." (Hill, Hill & Perlitz 2011, p. 7).

This mixed-methods research paper investigates the readiness of teachers and learners to implement a negotiated syllabus (NS) at the New Military Centre (NMC) at the VETI. This research paper addresses two main questions. First, are teachers and learners at the New Military Centre ready to implement a negotiated syllabus? Secondly, does the negotiated syllabus implementation lead to improvement in learners' motivation? This study is the first of its kind in the UAE, so it is likely to be valuable for those interested in English syllabus design.

Statement of the Problem

The selected textbook (treated as a syllabus), is "VENTURES" which is cyclical since the same themes appear in the different series. Learners have nine periods (40 minutes each) of

English every week. The Key English Test (KET) is the benchmark to graduate from the VETI.

Learners are expected to be at the level of "A1" according to the European Common Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR). Despite the effort exerted in teaching English since the establishment of the VETI in 2007, learners show no quantifiable improvement as demonstrated by final exam results, KET scores or teachers' remarks. The limited English level of learners affects their chance to advance in their studies and work. This issue, therefore, challenges English teachers to take a stance on how to design a syllabus that can motivate demotivated and disengaged adult learners to enable them to pass the KET.

Purpose of the Study

The study aims to provide the English teachers at the NMC with a real opportunity to explore the possibilities and effectiveness of implementing an NS. It is hoped that they will embark on a discussion to engage other teachers and syllabus designers at the VETI to design a plan to implement an NS if it is found to be appropriate and effective. These changes, we hope, will bolster the English language acquisition skills of future VETI learners.

Literature Review

To answer the research questions, a review of the relevant literature in the following areas is critical: nature and principles of adult education, motivation, types of syllabi, and principles of an NS.

Adult Education

An adult is defined according to his / her role in the society and his/ her understanding of responsibility towards learning (Knowles 1980, p. 24). This definition matches with the

definition given to adult education by Darkenwald and Merriam (1982, p. 9) as "a process whereby persons whose major social roles are characteristic of adult status undertake systematic and sustained learning activities for the purpose of bringing about changes in knowledge, attitudes, values, and skills".

Although Knowles' definition is meant to be inclusive for any adult, many UAE's adults do not share all of its features. Due to the high economic standards of many adults in the UAE, their understanding of responsibility differs from adults in western and developing countries. However, adult learners at the NMC consider themselves responsible citizens since they leave their families and spend weeks and sometimes months away from their homes for training purposes. Studying in a boarding centre entails being responsible for some daily routines that are usually done by drivers, maids, siblings, etc.

Adult Learning Theories

Elias and Merriam (2005) compare seven adult education philosophies: Liberal, progressive, behaviourist, humanist, radical/critical, analytic, and postmodern. It is unclear if the 250 teaching and administrative staff at the VETI hold a common philosophy due to the staff's different nationalities and educational backgrounds. This situation is beneficial because it enriches the staff's experience through creating an environment which encourages sharing and the negotiation of ideas. A mixture of radical, progressive and humanistic philosophy exists, but a humanistic/constructive view is dominant. This view supposes that a highly motivated and self-directed learner assumes responsibility and self-development whereas teachers are seen more as facilitators in a co-learning process (see Appendix A for a description of three educational philosophies).

The theory of andragogy highlights the belief that adults are quite different from school children. Knowles (1980, p. 27) states that "the primary and immediate mission of every adult educator is to help individuals satisfy their needs and achieve their goals". Thus, a successful teacher has the skills to identify and meet learners' needs, as identified by authorities in adult education like Jarvis (2010), and Rogers and Horrocks (2010). The principles and conditions of adult learning and teaching proposed by Knowles (1980) have been proposed and recommended by TAFE (see Appendix B). Furthermore, TAFE and other universities in Australia employ an updated version of principles:

1- Adults want to be respected, and safe (physically and psychologically).

2- Adults can and will use all of their senses to learn.

3- Adults learn more effectively when they can apply new information to their existing perception or experiences.

4- Adults need to be able to practice newly acquired skills and implement new knowledge.

5- Adults best remember the first and last things in a learning session.

6- In training, adults need feedback on their progress to verify their own success.

7- Adults need to be actively involved in the learning process. (Hill, Hill & Perlitz 2011, p. 93).

This study considers the seventh principle to be a turning point in helping teachers and learners to implement an NS because it empowers learners to make decisions about intended syllabi.

Satisfying Learners' Needs

As a motivator, needs satisfaction is highly stressed by writers. According to Sullo (2009, p.

38), human beings try to achieve the following established basic needs:

- To survive and be safe

  and secure

- To connect and belong

  ☐   To gain power

  and autonomy ☐

  To play, enjoy and have

  fun.

Sullo (2009) asserts that "when students find schools and learning to be a need satisfying experience, they will put working hard and learning in their internal world and will be the academically motivated students we would like them to be"(p. 48). Therefore, it is important for the NMC to activate the principles above to satisfy the needs of its learners. On the other hand, Maslow's theory of self-actualisation stresses that even if all the primary or physiological needs are satisfied "we may often (if not always) expect that a new discontent and restlessness will soon develop unless the individual is doing what he is fitted for … What a man can be, he must be" (Stephens 2000, p. 261). Consequently, learners generally become involved in what they do well, hence they "like to do it again, and put in more effort" (Littlejohn 2001, p. 6).

Characteristics of Demotivated Learners

McCall (2003, p. 113) indicates a number of characteristics of disengaged learners which can be used to describe the learners at the NMC: behavioural dysfunction, need for academic remediation, social dysfunction, family conflict and chronic absenteeism. In addition, learners at the NMC lack the skill of self-regulation which refers to "self-generated thoughts, feelings, and behaviours that are oriented to attaining goals" (Zimmerman 2002, p. 65). Since self-regulated learners "monitor their behaviour in terms of their goals and self-reflect on their

increasing effectiveness ... [it is expected that] [t]his enhances their self-satisfaction and motivation to continue to improve their methods of learning" (p. 66). To enable learners at the NMC, teachers need to prepare them to learn by themselves. Zimmeran (2002) emphasises the importance of teaching students the self-regulation process by providing chances for learners to choose from, for example, tasks to do, assignments and assessment of their work. Teaching these skills is the essence of an NC because it supports the importance of training learners to be responsible for their learning because of self- regulation.

The Impact of a Negotiated Syllabus on Learners

Ma and Gao (2010) studied the effect of an NS on promoting students' autonomy in Dalian University of Technology-China. They found out that "negotiation of purposes, content, ways of working and evaluation [enable] students [to] become highly motivated and wholeheartedly involved and take on greater responsibility for their own learning" (p. 901). Further, Tuan (2011, p. 13) studied whether "task negotiation could accommodate students' learning needs and increase their learning effectiveness". He came to the conclusion that task negotiation enhances learners' motivation, involvement, and achievement.

Other evidence comes from the action research study by Dalby (2010) who investigated the impact of a process syllabus on increasing: self-perceived student level, student use of learning strategies, and students' course satisfaction?" (p. 10). The study showed that most students "agreed that negotiating was a motivating, positive experience, and a good use of time" (p. 12).

Types of Syllabi

Candlin's definition seems to be appropriate for this study as he views a syllabus as "a social construction produced interdependently by teachers and learners… [It is] concerned with the

specification and planning of what is to be learned" (cited in Brumfit 1984, p. 30). Closely

related to this, is the "Promising Syllabus" which "fundamentally recognises that people will

learn better and more deeply when they have a stronger sense of control over their own

education rather than feeling manipulated by someone else's demands" (Bain 2006, cited in

Lang 2006, p. 114). These views of the nature of a syllabus are expected to encourage

learners to negotiate intended syllabi. In this way, learners are likely motivated to be

responsible for their learning by being engaged in the process of voicing their concerns and

opinions regarding their academic needs and preferences.

The literature on syllabus design draws a broad distinction between two contrasting types:

either product-based or process-based. Nunan (1988), Wilkins (1976) and White (1988)

categorise syllabi into two types: product/synthetic/type "A" vs. process/analytic/type "B"

respectively. Wette (2011) distinguishes between product and process syllabi. A product

syllabus is developed externally, and teachers have to follow it while a process is one that

"results from explicit negotiations with learners about their needs and wishes" (p. 137).

What is a Negotiated Syllabus?

In the context of learning, negotiation refers to "the discussion between all members of the

classroom to decide how learning and teaching are to be organised" (Breen & Littlejohn

2000, p. 1). Negotiated syllabi are also called "process syllabi" which consider the questions:

"who does what with whom, or what subject matter, with what resources, when, how, and for

what learning purpose (s)" (Breen 1984, p. 56). In other words, the process model "rests on

the concepts of learner needs, interests and development processes" (Richards & Renandya

2002, p. 73)

Breen and Littlejohn (2000) identify three forms of negotiation: personal, interactive and procedural. Personal negotiation occurs when we use a complex mental process to understand what we read or hear and to be understood. On the other hand, interactive negotiation occurs when people express their understanding or when they fail to get the point of a particular conversational interaction. The "primary focus of procedural negotiation is less upon meaning than upon reaching agreement" (Breen & Littlejohn 2000, p. 9). They highlight that "the primary purpose of procedural negotiation is managing teaching and learning as a group experience" (p. 8). The outcomes of a procedural negotiation explain the nature of a process syllabus which is the cornerstone of any NS or curriculum.

The Rationale for Negotiation

The concept of negotiation is evident in the emergence of four strands: humanistic and communicative language teaching, learning strategy research, learner autonomy and syllabus negotiation (Tudor 1996). More specifically, these strands emphasise the centrality of learners in the "language-learning process and the learner's affective, cognitive, and linguistic needs should all play a role in determining the content and implementation of whatever syllabus type is decided upon." (Clarke 1991, p. 16). Similarly, Nunan (1988, p. 20) asserts "humanistic education…reflects the notion that education should be concerned with the development of autonomy in the learner". Nunan's assertion shows that the VETI has the capability of implementing an NS since many teachers at the VETI believe in the effectiveness of humanistic education.

Conditions for a Negotiated Syllabus

Breen and Littlejohn (2000) list seven situations where an NS is possible: teachers and learners have different backgrounds, course duration is short, a need to find common ground among diverse learners, a needs analysis is not likely, no main textbook, learners' past experiences is a reference point, and an open-ended and exploratory course. Although these

situations are important, the readiness of learners, teachers and the management system to implement an NS are decisive factors. What do learners and teachers need to be prepared to be part of a negotiated cycle? Is the management system ready to empower teachers and syllabus designers to make critical decisions concerning syllabus design? Are syllabus designers well qualified to make the necessary changes to implement an NS? Positive answers to these questions seem to outweigh the importance of the seven listed situations.

Negotiated Classroom Decisions

The range of decisions subject to negotiation is "any and all decisions that need to be made in the ongoing creation of the language curriculum of a particular class or group of learners" (Breen & Littlejohn 2000, p. 30). Teachers and learners work together to reach an agreement on four aspects of the curriculum: purpose(s), content, methods, and evaluation. According to Breen and Littlejohn (2000, p. 31), seeking an agreement on these four aspects can be achieved through negotiating the following questions: Why are we learning the language?, What should be the focus of our work?, How should the learning work be carried out?, and How well has the learning proceeded? (See Appendix C for the range of decisions open to negotiation).

Meanwhile, asking and answering the four questions has to be seen as part of a cycle that facilitates future decisions. The negotiation cycle indicates three steps that describe its sequence (see Appendix D). At step 1, teachers and learners negotiate the four questions and jointly make decisions. At step 2, decisions are acted upon, and a number of actions take place which form the practical experience of the learners. At step 3, the outcomes of the actions are evaluated by teachers and learners as can be seen in Appendix E.

Involving learners in classroom DM has to be gradual. Breen and Littlejohn (2000, p. 286)

illustrate what they call the "curriculum pyramid", which includes six levels as shown in

Figure

1.
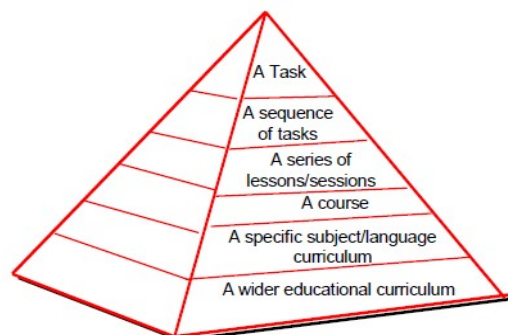
Figure 1. The curriculum pyramid: levels of focus

These levels include immediate, moment-by-moment decisions (tasks), what to teach

(syllabus) and what and how learners will learn (language curriculum). Appendix F offers

concise definitions and examples of each level in the curriculum pyramid.

To sum up, the negotiation cycle, which illustrates the four areas subject to negotiation and

the curriculum pyramid, which shows the seven progressive levels to which the cycle can

be applied, offer us a framework for a process syllabus. Figure 2 summarises the structure

of a process syllabus
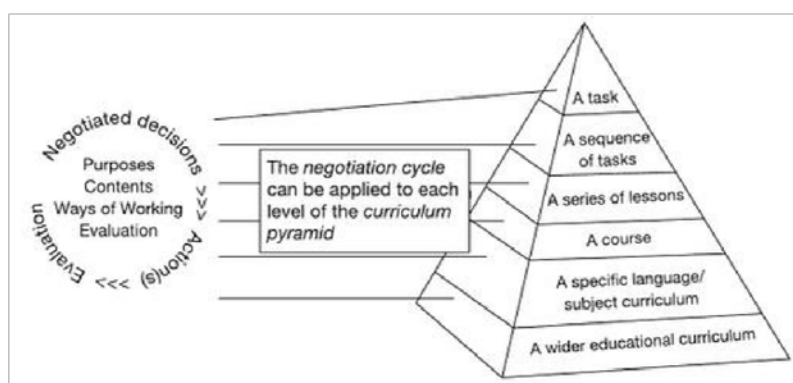
Figure 2. A process syllabus (Breen & Littlejohn 2000, p. 287)

Arguments for Procedural Negotiation

The case for implementing a procedural negotiated syllabus is supported by a considerable number of references and studies. For instance, Breen and Littlejohn (2000, pp. 19-29) identify six advantages of an NS:

1. It is a means for responsible membership of the classroom community.

2. It can construct and reflect learning as an emancipatory process.

3. It can activate the social and cultural resources of the classroom group.

4. It enables learners to exercise their active agency in learning.

5. It can enrich the classroom as a resource for language learning.

6. It can inform and extend the teacher's pedagogic strategies.

Additionally, Nation and Macalister (2010, p. 156) emphasise other advantages of an NS. It responds to learners' needs, enhances motivation, creates meaning-focused activities, and develops learners' awareness of language-learning activities. Furthermore, Ansari and Babaii (2002, p. 2) highlight the importance of negotiation because it is difficult to find a textbook that responds to all of the differing needs of learners.

Factors for Successful Implementation of an NS

Like all other types of syllabi, the negotiated syllabus has its own limitations. White (1988, pp. 101-102) considers a process syllabus as a utopian proposal, causing problems for those who want to implement it in the world of everyday affairs. He suggests considering the following constraints:

- A lack of formal evaluation in practice;

- Demands a high level of competent teachers;

- Inadequate provisions for relating the syllabus to its context;

- Redefinition of power and authority in the classroom would be culturally inappropriate in some societies;

- The need for a supply of materials and learning resources if a single textbook is not used, and ☐ Emphasis on process and procedures rather than on outcome may result in an aimless journey.

Long and Crookes (1992, p. 40-41) list four drawbacks of an NS: language form is not addressed, lack of a theoretical reference or research in SLA, arbitrary selection of tasks without prior needs identification, and absence of clear criteria for grading and sequencing tasks. Additionally, Nation and Macalister (2010, p. 156) talk about two types of disadvantages. The first results from a lack of knowledge or experience with this type of syllabi. The second is that implementing a fully negotiated syllabus requires teachers that are highly skilled in syllabus design and producing resources. They mention the following disadvantages as examples of the two types: learners' reluctance to negotiate, learners' ignorance of the range of options they could choose from, teachers' fear of loss of power and status, and difficulty in reaching an agreement with ill-behaved learners.

The qualitative thematic analysis of the participant teachers' interviews will determine whether the factors above affect the implementation of an NS positively or negatively. It is predictable that the type of learners at the NMC will impact any decision regarding the implementation of an NS.

Methodology

Research Design

Given the purpose of the study, which is to explore the possibility of implementing an NS at the NMC, the use of a qualitative–quantitative descriptive single-case study method is the most appropriate methodology because describing teachers' views "involves the collection of extensive narrative data [qualitative] in order to gain insights into phenomena of interest" (Gay1996, p. 11). Equally, I need to collect "numerical data in order to explain the learners' responses" (p. 11). In short, a mixed-method approach strengthens confidence in the results and their reliability and validity because "it is unlikely that a single prescriptive guide can ever capture the myriad combinations and facets of possible mixed-method design, analysis, quality considerations and write-up" (Green, Kreider & Mayer 2005, p. 276).

Identification of Participants

By using a table of random numbers, fifty male learners (25%) were selected as a sample to represent 200 learners at the NMC. The average age of the sample is 19 years. The majority of learners (90%) are beginners with six years of school study at state schools. Around 50 % were without formal education for three years before joining the Institute. Since all of them want to work for the army, they will use English to communicate with English speaking visitors. In addition, I interviewed the three male English teachers: Ali, Ahmad and Khaled (pseudo names) who teach English for all learners at the NMC. They were recruited from different countries to enrich the cultural experience of learners. They are from Egypt (MA in TESOL), Iraq (MA candidate in TESOL) and South Africa (BA in English). Two of them have been teaching English for more than twety years while the third one has ten years of experience.

Data Collection

The data were collected at the NMC where learners were studying. An interview and a survey questionnaire were employed to collect teachers and students' views on implementing an NS. A brief description of how the researcher collected the data is discussed in the next sections.

Teachers Interview

The three teachers attended a 90-minute session to be familiar with an NS (definition, model, outcomes and challenges). Prior to asking the focus group (Ali, Ahmad & Khaled) to answer the question, three teachers of English from another department at VETI were asked to answer a set of open-ended questions for piloting purposes. They suggested some changes to make the questions clear and to aid in answering the main questions of the paper. The list of questions is shown in Table 1.

Table1. Teachers' Interview Questions

#	Group	Question
I.	Conditions For NS (CNS)	1. Are the conditions at NMC appropriate for implementing an NS? Explain.
II.	Advantages & Disadvantages of an NS (A & DNS)	2. What are the potential advantages of an NS?
		3. What are the potential disadvantages of implementing an NS?
III.	Opinions & Recommendations (O&R)	4. Would you suggest that other teachers implement an NS in other subjects? Why?
		5. Recommendations

The focus group asked for a copy of the interview questions to discuss them before the real interview. They were happy with the questions and they did not have comments on them. Then, I interviewed them as one group to minimise my influence to "produce more legitimate claims to the validity or credibility of data" (Hobson & Townsend 2010, p. 234). They took part in a 60–minute semi-structured interview by answering open–ended questions to provide

"opportunities for interviewees to talk about what is crucial to them, in their own words" (Hobson & Townsend 2010, p. 231).

Learners' Questionnaire

The questionnaire was adapted from Nunan (1988, pp. 322-25) and derived from the literature review of the proposed process model of an NS (see Appendix G). It aimed to explore learners' opinions about learning English and towards implementing an NS. After piloting the questionnaire with three learners, I made the necessary changes. The questionnaire contains a combination of Likert-type scale and true/false questions. Specifically, five areas of research questions are addressed: (1) reasons for learning English; (2) methodological preferences; (3) learning thinking skills; (4) learners' involvement; and (5) motivation and negotiation. The learners were assured of the anonymity and the confidentiality of their responses by completing a consent form (see Appendix H). Additionally, they were encouraged to provide accurate accounts to avoid one of the limitations of questionnaires, namely "its reliance on self–report measures, and subsequently, on the integrity, interest and motivation of the respondents" (Hartas 2010, p. 268).

Data Analysis

After data collection, the qualitative and quantitative data were analysed separately. To analyse the data, common themes and factors "thematic analysis" were looked for. Concerning the collected data from teachers' interviews, I applied the unfocused transcription approach rather than indexical or focused approach. My concern was to represent the meaning of what I heard rather than to "create an index of the points at which key occurrences happened within data [indexical transcription] …or to pay attention to the details of that meaning was created" (Gibson 2010, p. 297).

The focus of the questionnaire was on collecting descriptive data through quantitative data to get a clear picture of the learners' perceptions. Therefore, descriptive statistics were used to represent and discuss the learners' responses, and the results of the questionnaire were depicted as tables and charts.

Results and Discussion

In this section, a discussion of the findings that synthesises and triangulates information from all data sources will be presented. First, the learners' responses to the survey questionnaire are statistically described. Secondly, a thematic analysis based on qualitative data to determine whether an NS was appropriate or not for NMC is presented.

Learners' Responses

To explore the learners' attitudes and opinions about learning English, fifty questionnaires were distributed to learners, of which, a total of forty (80%) were completed and returned. Learners' responses to the questionnaire are provided below.

Part 1: Reasons for learning English

Fifty percent of the learners did not mention any reason for learning English. In other words, they did not want to learn English because they think they can get a job with the army without knowing English. Confusing and contains a double negative, consider revising.) Of course, there are other possible reasons, mainly negative attitudes towards learning English because of issues related to school environment, teachers, syllabus, etc. The rest of the responses fall into four categories: enjoyment (20%), communication (12.5%), employment (5%) and social needs (12.5%) as shown in Figure 3.
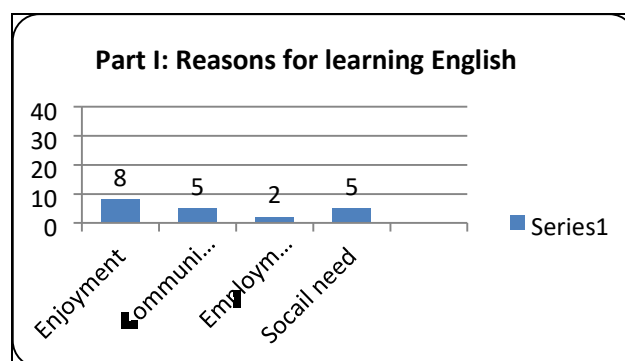
Figure 3.   Question 1: Why do you learn\want to learn English?

The responses indicate that learners do not place any value in learning English for academic purposes. Teachers need to identify the learners' needs and interests as illustrated by Knowles (1980, p. 27) who

states that "the primary and immediate mission of every adult educator [one educates adults] is to help individuals satisfy their needs". Thus, syllabus designers at the VETI need to include the learners' four areas of interest in the syllabus.

Part II: Methodological Preferences

Figure 4 shows that learners prefer learning individually to being in one large group. Eighteen learners favour learning in a small group while twenty-six learners strongly disagree to work in pairs. In addition, the thirty-five learners who were neutral (N) in their replies said that their neutral replies were due to their belief that all learning\ teaching patterns yield the same results.
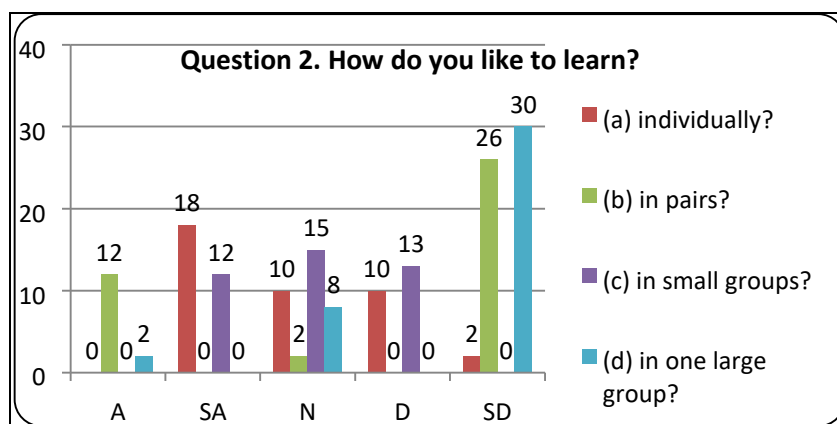
Figure 4. How do you like to learn?

It is likely that learners fear being unsuccessful when they work in pairs or groups. They think that working alone may help them to achieve a sense of "self-actualization" as affirmed by Maslow.

Part III: Content

All of the learners feel a need to learn thinking skills as shown in Figure (5).
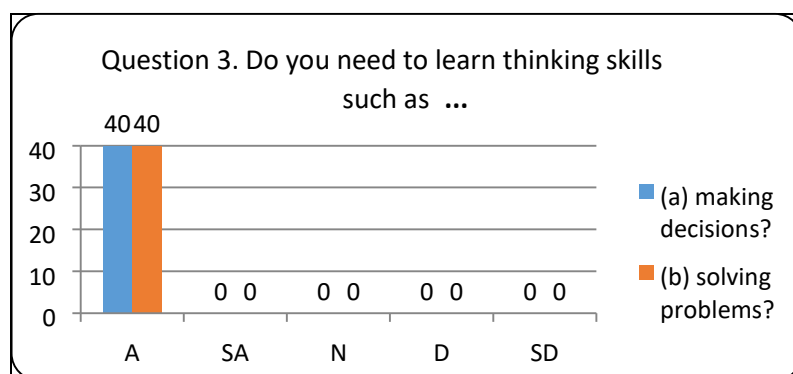
Figure 5. Do you need to learn thinking skills such as DM and PS ?

All learners are interested in learning how to solve problems and to make sound decisions. Mastering these skills is of primary significance for them since they experience social and academic problems. In addition, this interest is helpful for teachers to involve learners in DM about their learning.

Part IV: Negotiated decisions

Figure 6 shows that 100% of learners agree to be involved in DM about methods of teaching. The same percentage of learners thinks that they need to take part in their assessment. Thirtyseven learners are keen on defining the purposes of learning English at the NMC. Some disagreement exists regarding their involvement in DM about the content of the syllabus. Twenty-five (62.5%) learners agree to play a role in selecting the content while eight are neutral

and seven oppose giv ing learners any role in selecting the themes of the syllabus.
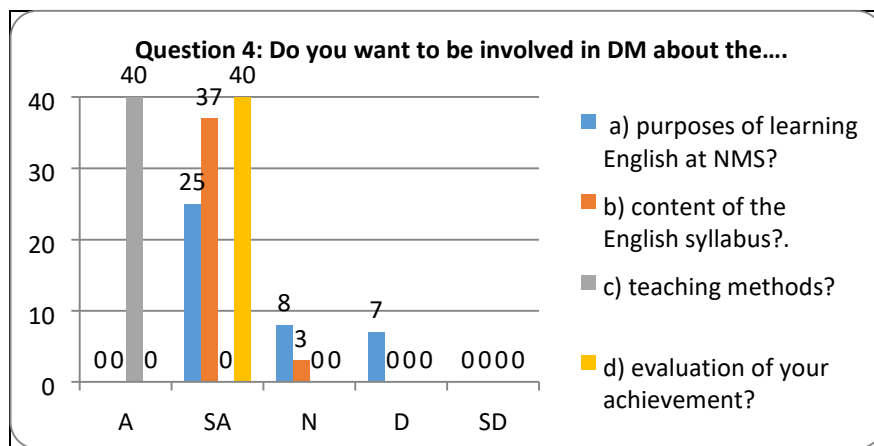
Figure 6. Do you want to be involved in DM about learning English?

Learners are keen on having a role in DM about their learning since they see themselves as independent entities. This interest in having a say in their education matches Nunan's (1988) belief that humanistic education should help learners develop their autonomy.

Part V: Open questions (Questions 5 & 6)
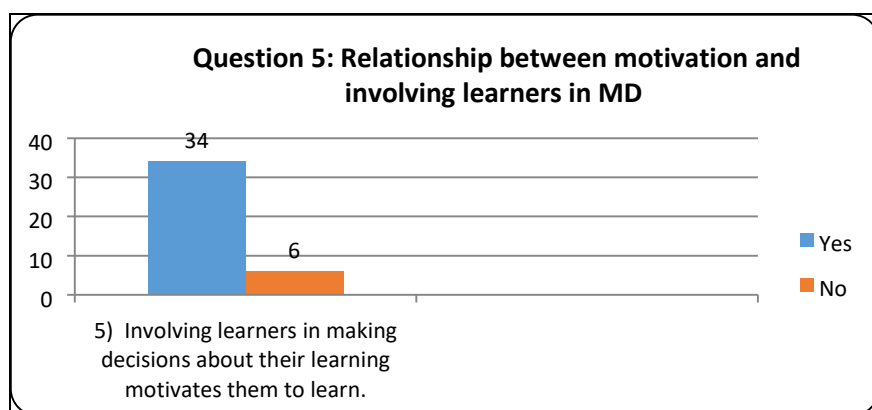
Figure 7. Relationship Between Motivation and Learner Involv ement in MD

Thirty-four learners (85%) agree that making decisions about their learning motivates them to learn English while 15% stated they do not share this opinion without giving any justifications. Those who said "yes" gave a set of common justifications. Being part of the

decision-making process makes them feel that they are respected and esteemed. In addition, they think that they can voice their concerns, interests and dreams. Finally, they will be motivated to learn what they choose rather than things imposed on them. These justifications accord a study by Ma and Gao (2010), which shows that negotiation of purposes, contents, ways of working and evaluation enhances learners' motivation.

In answering question six, 25 learners believe that an NS is suitable for the NMC (Figure 8). They think that adults need to be responsible for their learning. Furthermore, they will get rid of written tasks and exams which they dislike. Also, they will choose what suits their needs as adults who only want to be trained to get a job, for example, weapons, military principles, internet and communication. Five learners think that they can reduce the time of teaching because they are good at arguing for the sake of argument. It is worth noting not to think of negotiation as a bargaining process by teachers and learners; on the contrary, it entails cooperation and teamwork spirit to reach an agreement.
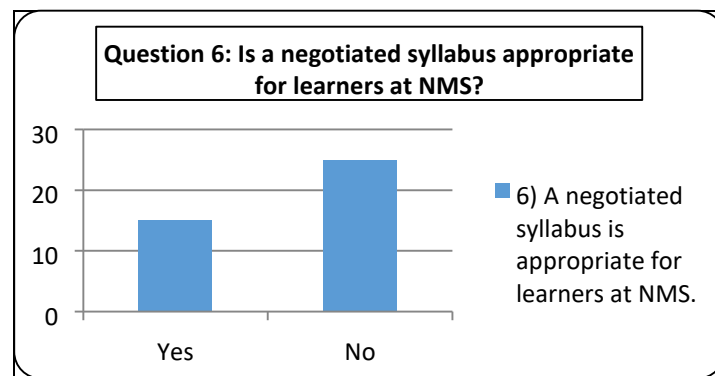
Figure 8. Appropriateness of NS for NMC

Conversely, 15 learners think that only teachers are qualified to choose what suits learners. Furthermore, since the majority of learners are low achievers, they will tend to choose very simple tasks which will not develop their language. Moreover, it is likely that it will be difficult to reach an agreement because learners have different and negative opinions about learning.

These responses show that learners are aware of the conditions for implementing an NS. They highlight the importance of motivation by involving learners in their learning. They believe that learners have a central role in helping teachers implement new ideas. Also, it is important for learners to be responsible for their learning by being part of the learning process. As adults, they need to control their learning rather than "feel manipulated by someone else's demands" (Bain 2006).

Qualitative Thematic Analysis of Teachers' Interviews

Question: 1. Are the conditions at the NMC appropriate for implementing an NS?

According to Mr Khaled, the conditions are to some extent appropriate because of demotivated and careless learners, low level of English, top-down management system, and

overloaded teachers. Conversely, Mr Ali and Mr Ahmad think that conditions are suitable because of qualified teachers, rich resources, the different backgrounds of teachers and learners, and absence of needs analysis. They think that since learners are adults, they do not favour to learn things imposed on them. Thus, negotiating the components of an intended syllabus with learners is a must. On the other hand, they think it would be problematic to implement an NS due to lack of adequate training in thinking skills for teachers and learners, absence of a negotiation culture, different teaching methods, and lack of communication between teachers and syllabus designers.

Obviously, the NMC is not the ideal environment to implement an NS, although most of the conditions defined by Breen and Littlejohn (2000) exist. Demotivated learners, heavy teaching loads and hierarchical management system are barriers. On the other hand, it is recommended to try an NS gradually with advanced learners as highlighted in a study by Shamami (2010) who concluded that an NS is not effective with intermediate students.

Questions: 2&3. What are the most potential advantages and disadvantages of NS?

The teachers distinguish between advantages for teachers and learners. Teachers will have a good opportunity to develop their teaching and research practices by studying different syllabi to justify their choice of an NS. Negotiating with learners requires strong communication skills which can create a friendly environment in the classroom. Another advantage is promoting learning and practising productive thinking skills: DM and problem solving (PS). Finally, avoiding the drawbacks of using just a single textbook by considering other available resources is expected since no single textbook can meet the needs of all learners due to individual differences among learners.

On the other hand, a number of possible drawbacks of an NS were outlined. A high percentage of learners may not cooperate with the teachers. Some of them may be reluctant to negotiate their learning with teachers because they are careless. A second issue relates to extra work required by teachers and administrative staff to acquaint themselves with this new syllabus. It is likely they prefer using current textbooks to be involved with reluctant learners in a long journey of negotiation. Mr Ahmad points out that only a few remarkable teachers can implement such an "ideal syllabus." On the other hand, Mr Ali believes that it is difficult to reach an agreement with curriculum and assessment units because they believe in standardised tests and ready-made syllabi to ensure fair assessment for all learners in different departments. Mr Khaled expects to face behavioural problems if learners are given more freedom to negotiate their learning, "learners will dominate us" he said.

The teachers' responses reflect the main advantages mentioned by Breen and Littlejohn (2000); Ansari and Babaii (2002); Dalby (2010); Nation and Macalister (2010); Ma and Gao (2010) and Tuan (2011). Examples include: motivating learners, enhancing academic achievement, reflecting learning as an emancipatory process, and enabling learners to be responsible for their learning. Similarly, the highlighted disadvantages match with what is

mentioned in the literature review especially by White (1988) and Nation and Macalister (2010).

Question 4. Would you suggest that other teachers implement NS into other subjects? Why?

The teachers gave a conditional agreement to implement an NS. Mr Ali agrees to try it with high-level learners who are interested in learning English and can communicate in English. He also asks for "semi-negotiated syllabus" where learners and teachers make decisions about content and teaching methods. Mr Khaled calls for "part-negotiated syllabus" with intermediate and high-level learners regarding the content where learners choose from a set of themes. On the other hand, Mr Ahmad suggests "semi-structured negotiated syllabus" where learners make decisions about evaluation and content by choosing from a set of alternatives. They are against implementing a complete NS as suggested by Breen and Littlejhon (2000) because some conditions are not suitable, especially the level of learners and the top-down management system.

The teachers' conditioned agreement to implement an NS harmonises with concerns by writers like White (1988), Clarke (1991), and Long and Crooker (1992). Nevertheless, it has two significant advantages: motivating learners and enhancing their sense of ownership. Ensuring that learners possess these two characteristics may solve many academic and social problems for these learners and the NMC.

Question 5: Recommendations

The interviewed teachers recommend the following suggestions:

- Conducting action research to evaluate the best approach to implement an NS,
- PD sessions on designing an NS for all subjects,
- Training learners in PS, DM and negotiation,
- Piloting with one class by each teacher,
- Gradual implementation of an NS,
- Implementing an NS first by the Arabic and Islamic teachers to overcome the language barrier, and
- Spreading a culture of negotiation at VETI.

Implementing the suggested recommendations can help in overcoming many of the constraints of an NS. Providing teachers and learners with appropriate training in critical thinking skills and communication skills, especially negotiation is critical to a successful implementation of an NS.

Conclusion

The theoretical literature review, learners' questionnaire and teachers' interview have shown that a negotiated syllabus serves many purposes and may have a positive impact on learners' motivation, academic achievement, critical thinking skills and personal development. Yet, implementing a negotiated syllabus at the NMC will be a difficult task mainly because of demotivated learners, overloaded teachers and the top-down management system. Nevertheless, these challenges should not prevent qualified, dedicated and creative teachers from being involved in implementing an NS. Gradualism and professionalism in the implementation process are keys to success.

The findings have implications for teachers and syllabus designers in the realm of TEFL in particular and adult vocational education in general. Teachers can help less motivated adult learners make decisions about their learning. Textbook writers, especially in the context of VETI, have to consider the needs of adult learners who are disengaged from school. A need for the inclusion of, and emphasis on, learning and teaching critical thinking skills is a necessity.

Since this current study is limited to four teachers and one military training centre, it has some limitations. Firstly, it is difficult to generalise the results since the size of the sample is relatively small: Fifty learners and three teachers. Secondly, none of the other core subject teachers took part in the study to validate the feasibility of implementation of an NS in other courses. Lastly, the research has only focused on the military learners. However, it is necessary to investigate the potential of implementing an NS in other vocational departments to find out the possibility of generalising the findings of this study. There is a need for more comprehensive research on the

impact and effectiveness of an NS on improving the four language skills and learners'

motivation. This research needs to demonstrate whether the NS approach can be successfully

applied by other teachers and students in other schools.

Impact on motivation to learn the English language

Negotiated assessment

It is my belief that many teachers can implement an NS effectively if they comprehend its

basic features and have the motivation and encouragement to be guides on the side rather than

sages on the stage. I have no doubt that an NS could yield more fruitful results, especially if it

is institutionalised.

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Appendixes

Appendix A: Summary of three theories of adult learning (Wang 2010, pp. 34-35)

Table 1. A summary of three adult education philosophies identified by Elias & Merriam (2005)

Dominate educational philosophy of adult educator	Pragmatist/ progressive	Humanist/ Constructionist	Radicalist/ Critical/ Reconstructionist
Simplistic Summary	Learning by solving practical problems	Self-directed learning	Education can bring about Social change
Approx. Era of first conception	16th Century re-vitalized in 1900	Classical-china Rome, Greece, 1950-Western	18th Century
Proponents	Dewey, Pierce Spenser, Linder-man. Blakely, Whitehead	Maslow, Rogers, Knowles, Though	Marx, Kozol, Retch, lllich, Freire, Adams
Learners' role	Learner's needs, interests and experiences are the key elements to learning active role	Highly motivated and self-directed assumes responsibility and self-development	Equality with teacher in learning Process, personal autonomy
Educators'' role	Facilitator seeking understanding resources base	Coach, mentor in colearning process	Challenger, change-catalyst coordinator
Teaching approaches	Pragmatic learner centred, learning spaces, problem-solving , experimental method, cooperative learning	Experiential personal development	Social activism
Educators' capabilities	Flexibility, individualism discovery, resource access, making it happen	Motivation and coaching, selfunderstanding selfefficacy	Freedom, releasing control, problemsolving, critical thinking, empowering

Educators' challenges/ difficulties	Democracy, diversity, coordinating all environments defining role of teacher.	Operating within and outside of institutional constraints, always in transition, operation, including societal goals.	Letting go, no boundaries, futuristic, getting involved taking action acknowledging pluralistic nature of most cultures

Appendix B: Principles and conditions of adult learning and teaching proposed by Knowles (1980) (pp. 57-58)

Conditions of Learning		Principles of Teaching
The learners feel a need to learn.	1	The teacher exposes students to new possibilities for self-fulfillment.
	2	The teacher helps each student clarify his own aspirations for improved behaviour.
	3	The teacher helps each student diagnose the gap between his aspiration and his present level of performance.
	4	The teacher helps the students identify the life problems they experience because of the gaps in their personal equipment.
The learning environment is characterized by physical comfort, mutual trust and respect, mutual helpfulness, freedom of expression, and acceptance of differences.	5	The teacher provides physical conditions that are comfortable and conducive to interaction.
	6	The teacher accepts each student as a person of worth and respects his feelings and ideas.
	7	The teacher seeks to build relationships of mutual trust and helpfulness among the students by encouraging cooperative activities and refraining from competitiveness and being judgemental.
	8	The teacher exposes his own feelings and contributes his resources as a colearner in the spirit of mutual inquiry.
The learners perceive the goals of a learning experience to be their goals. (tautology?)	9	The teacher involves the students in a mutual pro cess of formulating learning objectives in which the needs of the students, of the institution, of the teacher, of the subject matter, and of the society are taken into account.
The learners accept a share of the responsibility for planning and operating a learning experience, and therefore have a feeling of commitment toward it.	10	The teacher shares his thinking about options available in the designing of learning experiences and the selection of materials and methods and involves the students in deciding among these options jointly.
The learners participate actively in the learning process.	11	The teacher helps the students to organise themselves (project groups, learning-teaching teams, independent study, etc.) to share responsibility in the process of mutual inquiry.

The learning process is related to and makes use of the experience of the learners.	12	The teacher helps the student exploit their own experiences as resources for learning through the use of such techniques as discussion, role-playing, case method, etc.
	13	The teacher gears the presentation of his own resources to the levels of experience of his particular students.
	14	The teacher helps the students to apply new learning to their experience, and thus to make the learning more meaningful and integrated.
The learners have a sense of progress toward their goals.	15	The teacher involves the students in developing mutually acceptable criteria and methods for measuring progress toward the learning objectives.
	16	The teacher helps the students develop and apply procedures for self-evaluation according to these criteria.

Appendix C: The range of decisions opens to negotiation (Breen & Littlejohn 2000, p. 31)

The significance of negotiation

Table 1. 1 The range of decisions opens to negotiation

Purposes: Why are we learning the language?

What immediate and long-term learning need(s) should be focused upon? What should we aim to know and be able to do? What very specific aims might we have? etc.

Content: What should be the focus of our work?

What aspects of the language? What topics, themes, or specific uses of the language? What skills, strategies or competencies when using or learning the language? What puzzle(s), problem(s) or focus for investigation should be addressed? etc.

Ways of working: How should the learning work be carried out?

With what resources? What types of texts or materials would be most appropriate? How long should it take? How will the allotted time be organised? What working procedure or set of instructions should be followed? Who will work with whom? (the teacher with the class, a group or an individual?: the students in groups, in pairs or alone?). What can best be done in class and what best outside class? What support or guidance may be needed, what form should it take, and who should provide it?

Evaluation: How Well has the learning proceeded?

What should be the outcomes from the work? Have the purposes been achieved? Of the intended outcomes, what has not been learned and what has been learned in addition to these? How should outcomes be assessed and against which criteria? What will happen with the assessment? etc.

Appendix D: The negotiation cycle indicates three steps or phases describing the sequence of the negotiation cycle (Breen & Littlejohn 2000, p. 284)

STEP 1

NEGOTIATED DECISIONS

PURPOSES	CONTENTS	WAYS OF WORKING	EVALUATION
Why?	*What?*	*How?*	*How well?*
The aims of classroom work.	The focus of classroom work, e.g. language areas, topics, skills, learning strategies.	What resources will be used? When and how long will something be done? Who will work with who? How much guidance will be available?	What should be the outcomes? How will they be assessed? What will happen with the assessment?

STEP 2

ACTION(S)

Undertaken on the basis of the negotiated decisions at Step 1
e.g. tasks chosen and completed, plans made, evaluation
procedures worked out

STEP 3

EVALUATION

• of learning outcomes – achievements and difficulties
• of the process itself in relation to outcomes - appropriateness of purposes, contents, ways of working, evaluation and action taken at Step 2.

Appendix E: Example areas for the evaluation step in the negotiation cycle (Breen & Littlejohn 2000, p. 285)

Focus of evaluation	Example areas
What What has been achieved? What has not been achieved? What has been difficult? What should be the next points of focus?	Knowledge of language forms (such as grammar, spelling, pronunciation, intonation) and language use (such as language functions, appropriacy, discourse structures, genre); vocabulary; abilities in speaking, reading, writing, listening; communication strategies; study and reference skills; cultural awareness
How How was the process carried out? Was it appropriate effective/useful? How might it be improved?	Who does what when: task types used; classroom participation; effectiveness of group work ; modes of evaluating learning; timetabling; how feedback is given; how and what guidance is given; allocation of time; homework; sequence of tasks; right and responsibilities of classroom participant; the decision-making process itself.

F: Examples of decision areas at each level of the curriculum pyramid (Breen & Littlejohn 2000, p. 288)

Levels in the 'curriculum pyramid'	Decision areas for the negotiation cycle
1. The task	Who is to work with whom? In pairs, groups, or alone? For how long? What is to be judged as successful? How shall the task be corrected/monitored? Who shall correct/monitor it? What guidance/support will be available?
2. A sequence of tasks	Which tasks will be done? In what order? Which tasks (if any) will be omitted? Should tasks be adapted in any way?
3. A series of lessons/sessions	In what order will tasks, activities and topics be covered? Should certain tasks/activities/topics be omitted? Do any materials need to be adapted or supplemented?
4. A course	What additional tasks/contents/abilities will the course address? What instances of revision should be included? Which is the most appropriate set of materials for the specified purpose of the course?
5. A specific subject/language curriculum	What content areas should be the course focus on? What areas of language knowledge? What specific content should be included? What topics? What abilities in reading, writing, listening or speaking should be developed?
6. A wider educational curriculum	What wider educational aims (such as the development of autonomy, critical thinking, and so on) should be addressed? What links should be made between other curriculum areas (such as science, nature, geography, and so on)?

G: Learners' Survey Questionnaire (Part I – Part III are adapted from Nunan 1988, pp. 322-325)

PART 1: Reasons for learning English

Question 1: Why do you want to learn English?

_____

_____

INSTRUCTIONS: For Part II to Part IV: Please rate how strongly you agree or disagree with each of the following statements by placing a check mark (☐) in the appropriate box. Agree (A), Strongly Agree (SA), Neither agree nor disagree (N), Disagree (D), Strongly disagree (SD)

Area	Indicator (item)	A	SA	N	D	SD
PART II: Methodological Preferences (MP)	Question 1: How do you like learning?					
	(a) individually?	0	18	10	10	2
	(b) in pairs?	12	0	2	0	26
	(c) in small groups?	0	12	15	13	0
	(d) in one large group?	2	0	8	0	30
	Question 2: How would you like to spend the time in the classroom?					
	(a) Doing some kind of activity based on your personal experience, work experience, or interests?	10	16	14	0	0
PART III: Content (C)	Question 3: Do you need to learn thinking skills such as					
	(a) decision- making (DM)?	40	0	0	0	0
	(b) problem-solving (PS)?	40	0	0	0	0
PART IV: Negotiated decisions (ND)	Question 4: Do you want to be involved in DM about the….					
	a) purposes of learning English at NMC?	0	25	8	7	0
	b) content of the English syllabus?	0	37	3	0	0
	c) teaching methods?	40	0	0	0	0
	d) evaluation of your achievement?	0	40	0	0	0

PART V: Please answer the following questions. Give reasons.

Question	Yes	No	Reasons
5) Involving learners in DM about their learning motivates them to learn.	34	6	
6) A negotiated syllabus is appropriate for learners at NMC.	15	25	

Thank you for your cooperation and wish you all success.

CONSENT FORM: SURVEYS AND QUESTIONNAIRES

I,   of

Hereby consent to be a subject of a human research study to be undertaken

By Mohammad Ahmad Assaf

I have read the 'Statement for Participants' relevant to the research study and I understand that the purpose of the research is to explore the possibilities and the effectiveness of implementing a NS at NMC. This research paper addresses two main questions. First, are teachers and learners at the New Military Centre ready to implement a negotiated syllabus? Secondly, does the negotiated syllabus implementation lead to improvement in learners' motivation?. The ultimate goal is to help the teachers and syllabus designers at VETI to bolster the English language acquisition skills of future VETI learners.

I acknowledge that:

1.   Upon receipt, my questionnaire will be coded and my name and address kept separately from it.

2.   Any information that I provide will not be made public in any form that could reveal my identity to an outside party i.e. that I will remain fully anonymous.

3.   I understand that findings will be used for research purposes and may be reported in journals.

4.   Individual results will not be released to any person except at my request and on my authorisation.

5.   I am free to withdraw my consent at any time during the study in which event my participation in the research study will immediately cease and any information obtained from me will not be used.

Signature:

Date: /   /2013

Using Technology in Enhancing Instructional Pedagogies, and Developing Learning Level.

Nehal Hamed Mohamed Ebrahim Rabie
The British University in Dubai

Abstract

"The real asset of any advanced nation is its people, especially the educated ones, and the prosperity and success of the people are measured by the standard of their education." Sheikh Zayed bin Sultan Al Nahyan.

This research proposal is investigating the impact of technology on the teachers' instructional pedagogies inside classrooms. That is because, it was noticeable through many previous literature that, the use of educational technology became directly touching on the effectiveness of the learning process. Some researcher were able to prove that using technology in education increases the students' abilities in constructing their own knowledge, and enhancing their skills. As well, others proved that it distracts the students, and its disadvantages were more showing than advantages. To be fair, students cannot be only held responsibility for that, as teachers' professional development plays a big role in guiding the students' learning. Since it became essential for any educational program to compete internationally, and using technology enables that , so using technology became essential too in the education sector. That means as well, that assessment process for students should be ethical and equal. As assessment criteria should include assessing the skills ability for using educational technology.

Applying constructivism in instructional pedagogies helps in engaging students to take effective role in the double-faced relationship learning process, as both teachers and learners are partners in the lifelong learning process. It does not only enhance students' academic

level, but it is also helpful for developing teachers' skills. In this research, the teacher himself is acting as a learner. The need for continuous ongoing teachers' training workshops, coping with continuously popping up technological requirements, different educational levels, and prior knowledge for teachers; push teachers to act as a long life learners, who engage in continuous learning with their students as well. This research proposal is taking place in United Arab Emirates, in one of Abu Dhabi national schools particularly. The main aim for this research proposal is to stand on the reasons behind UAE's falling behind with 23 points in TIMSS report 2105. Measuring both variables to check the ability of technology in affecting the effectiveness of learning process in real cases, is the only clear answer to decide on the real reasons. A quantitative research method will be used, and analysed data through SPSS will act as a solid evidence for the real causes of UAE problem.

Terminologies
Pedagogies, Abu Dhabi Educational Council (ADEC), Survey, repertoire, authenticity of the task, life-like context, lifelong learning, constructivism, web-environments, metacognitive thinking, social constructivism, activity theory, subject matter competence (PCK), zone of proximal development, based course content (flexible technology), web-based environment, situated learning theory, political will, traditional and technological education, TIMSS.

Introduction

     a. **Problem statement**

Todd Oppenheimer stated in his journal article published in 2003, that depending only on technology is not the right way to achieve development in learning inside our classrooms. He mentioned in the same article that technology affect negatively the students' ability to reason, listen, and think critically. Meaning that, using technology in accessing knowledge, leads to

lacking the required skills for collaborative learning and interacting with the society, especially classroom cooperative environment (Oppenheimer - 2003).

The problem presented in this research proposal is to figure out the reasons behind either development, or falling behind for any educational system, especially UAE. Is it a problem in teachers' professional development inside the classrooms?, is it a students' problem?, is it the acceptance of community partners; such as parents?. All those sub variables need to be measured in order to come out with an appropriate suggestion, to restore UAE's academic classification back according to TIMSS report 2015.

b. Rationale for the study

The rational for this study raised after an individual notice that UAE had fell back 23 points behind top countries who still master educational programs (Singapore, Hong Kong, Korea, Japan, and China), according to the Trends in International Mathematics and Science Study (TIMSS) report 2015. This gap attracted my attention to investigate about the reason that leads to that drop, after UAE had been able to compete with top countries and has an international classification worldwide. Especially that UAE political and educational authorities are totally engaged in continuous development for raising the educational standards introduced to their students. They are never late for any initiation that may lead to educational development, and are totally ready to enhance new researcher and workshops for providing training to educators, and teachers to reach the highest level of professional development.

c. Significance of the study

The outcome of the study is to investigate whether using technology in classrooms is a reason to develop the learning process' outcomes, or is it the reason behind UAE falling back in

TIMSS report. Not only that, but also investigating on the teachers' role inside the classroom. As well as, teachers' ability in implementing other educational theories, that enhance the learning process such as; social constructivism, activity theory, situated learning theory, subject-based competence. In addition to the students' learning development, teachers also will enhance their learning through adding to their knowledge, as it is a long- life learning community, where teachers and students share the collaborative learning. Outcomes are not only for the proving effectiveness of the educational process, but also for suggestions to close the gap of the 23 points' difference between United Arab Emirates, and other countries.

d. Research Questions and/or Hypotheses

In this research proposal, there are two variables affecting each others, one of them is independent and the other one is dependant. Using technology is the independent variable which is affecting the effectiveness of the educational process -dependant variable-.

The dependent variable is a multi-dimensional variable, as it has some sub-variables that got directly affected by the independent variable, and they are as follows:

- Teachers' professional development.

- Students' learning needs.

- Students' mastering for self-regulating, and self-assessing skills, for guiding their own learning.

- Parents' acceptance and cooperation.

The hypothesis in this research proposal is to spot the light on the relationship between dependant and independent variables. Otherwise, it is a null hypothesis, and there will be no relationship between the previously mentioned variables. The research question here is:

- Is there a relationship between using technology inside classrooms while introducing knowledge to students, and increasing the effectiveness of the learning process?.

- A sub-research question emerges here to not only prove the relationship, but to show to what extend is it?

Thus, hypothesis in this research proposal are as follows:

H1: There is a positive hypothesis, which is the relationship between using technology in classroom, and effectiveness of learning.

H2: There is a null hypothesis, which is no relationship between using technology in classroom, and effectiveness of learning.

F. Theoretical underpinning
Theories and key concepts

- **Subject-based theory**

The main theory in this research proposal is constructivism. Constructivism theory was firstly mentioned by *Vygostsky* and other researchers and educators; such as: *Jerome Bruner*, *Howard Gardner*, and *Nelson Goodman*, after *Jean Piaget*'s death in 1980's. The idea of constructivism emerged because of a limitation in the previous two theories that emerged before constructivism. Neither cognitive theory- that is mainly based on reasoning only-, nor behaviourism theory - that is mainly based on providing passive students with information-, were suitable for introducing effective learning. There should be a consideration for social aspect, so a teacher can fulfil all learners' needs. Constructivism is providing learners' with autonomy, in which they can interact in their own learning. Not only that, but also they add to their learning by tailoring their learning needs, through self-regulation, and self-assessment skills. (D Kiraly - 2014, pp. 15-16)**.**

- **Social constructivism**

It is not a different theory. It is only a kind of clarification for the original constructivism theory that was first mentioned by Vygotsky and his followers. Vygotsky added the social aspect to the original theory, in order to provide more opportunity for considering the social factor, while dealing with different students (Journal of Literacy Research, 1998, 1 June).

- **Activity theory**

It emerged to engage students in a continuous learning process, in which learning by doing is the main concept behind this theory. This theory is suitable for introducing skills, more than theoretical knowledge. The activity theory was firstly introduced to educators and theorists in the late 1970's and early 1980's by Sir Leontiev's. Example for implementing this theory with technology, can be showing them how to use computers to dig deep for more knowledge. (K Kuutti, 1996, P.25) (V Kaptelinin, BA Nardi - 2006, p.3)

- **Subject matter competence**

This is also has a different academic terminology, which is Pedagogical Content Knowledge (PCK). This concept is mentioning the importance for a teacher to know everything about the subject he/she is teaching. This enhances the instructional pedagogies inside the classroom, and engage students more in the learning process. That is because the teacher is aware of every single detail in his taught subject, so he/she can simplify any difficult information and introduce it easily, in a way that suits the students' multiple intelligences. It also may mean that a well knowledgable teacher will be able to consider all the multiple intelligences in his/her class, whether he/she was introducing a simple or a difficult information. Implementing this key concept will lead to a fruitful discussion inside the classroom (J Gess-Newsome, NG Lederman - 2001, pp. 3-4)

- **Zone of proximal development (ZPD)**

"The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1978, P. 86).

That is how *Vygotsky* defined the zone of proximal development to educators and theorists. It is simply the skills that the person acquire theoretically, then acquire through doing by the assistance of a knowledgable one; such as a teacher, and finally, the skills that a person can master doing on his own. This period of time is very important to be considered by the teacher side, as it helps in planning the instructional activities (*L Vygotsky, 1987, p.1*).

- **Situated learning theory**

In this theory it is stated that, better learning occurs in the intersection with introducing theoretical knowledge, learning by doing, learning by interaction with other. In this theory we can see that cooperative learning is the main core of the theory. It was firstly mentioned by Jean Lave and Etienne Wenger, in the early 1990's, and follows the work of Vygotsky and his followers. (FAJ Korthagen, 2010, pp. 98–106).

- **Flexible technology**

It is a general term that consider introducing knowledge to students through online resources. There are two types of flexible technology (AWT Bates - 2005, p.2)

- First one is called **technology-based distance education**. This type introduces knowledge to students that register to study online. That is because either the students can not attend the lecture physically, due to the long distance he has to cut, or because the students is a full time employee, and can not make it for attending the lecture by himself. In both cases students used to register online, and attend their lectures in a cooperative learning sessions through some applications that facilitates that; such as web cam, Skype. During those

online sessions, students learn through discussions in a group, where the instructor explain the material, and discusses with the students the points that need to be clarified.

-   Second type is called **technology-enhanced classroom teaching.** This type is well known in nowadays classes, in most of the countries. In that type, the teacher uses online resources inside the classroom, while he is teaching to the students. This case has more advantages than the first type. It enables the students to acquire and master the collaborative learning skills. Constructivism is easily to be implemented here, as the teacher will have a big opportunity to engage students moe in the learning process. In addition to, makes use of their differences, by distributing the students in groups that enables them to exchange their different experiences among them. This will not only enhance the learning process, but will enhance the students themselves on the personal level.

• **Based course content**

It is the process of designing the course content, in order to suit the general learning objectives, and students' learning needs as well. The idea has no relation with the length of the course material or the difficulty of the content, the idea has big relation with a teacher who has PCK, and aware of each detail in his teaching course. This process required a knowledgable teacher to to be able to tailor his course content effectively, in order to match also the different learning styes for different students. PCK enables the teacher to explain smoothly, and effectively the course material. It has also a big relation with the assessment criteria that the teacher will follow, to measure the effectiveness of his instructional pedagogies, and measure the acquired knowledge and skills for students. The following is a simple criteria that any teacher can follow in order to design his course content easily:

1. What are my students' intelligences, and previous experiences, as well as prior knowledge?

2. What are the skills, and knowledge that I want my students to master?

3. What are the assessment criteria for measuring the required learning objective?

Web-based environment

According to Peulsen, a web-based environment is the online resources that any learner can access it. It has other academic terminologies; such as, computer-based communication, Internet-based education, online education (Paulsen, 2003). This environment allows a good opportunity to the learner to access different sources of knowledge on his own. The idea of behaviourism theory, and Cognitive theory, in which the teacher is the only source of knowledge, and the student is a passive recipient has faded away. The constructivism theory is the most suitable one to be implemented in that case. As students will be free to access whatever data they wish, that is why it is important for a teacher to have a PCK, in order to be able to guide his students' learning. Moreover, it is also important for a teacher to provide his students with a self-assessment, and self-regulation skills, in order to be able to guide their own learning (Brusilovsky, 1999).

G. Literature Review

The previous section introduced the most relevant key concepts and theories, related to the displayed topic, for clarifying the main concepts that this research proposal relies on. The following section will include briefly some of the previous literature, where some researchers agreed and others do not, on the effectiveness of technology on the learning level.

The idea of measuring the effectiveness of technology on the learning process inside the classroom, was not new. It was measured several times in the previous literature since the appearance of technology in 1990's [Ng, Eugenia M. W. - 2012, Michael J Spector, M. David Merrill, Jan Elen - 2013, Dennis W. Sunal, Emmett Wright, Cheryl Sundberg - 2008, Schreiner, Christopher S. - 2009, Carroll, 1997, Ferris 2015, Zhu et al. 2012, Von Schlicten 2015, Mueller and Oppenheimer- 2014, Rosen et al. - (2012- 2013), Lunenberg, 1998]. Carroll was one of those, who had different point of view. Carroll (1997) stated that technology is not yet changing our instructional pedagogies. We still in many contexts depend on the traditional ways in introducing knowledge to our students. Rosen, Mueller, and Oppenheimer ; who followed Carroll and believed in the negative impact of technology on the learning effectiveness inside classrooms proved that, using technology distracts some students, and separate them from collaborative classroom environment (Mueller and Oppenheimer 2014) (Rosen et al. 2012).

On the other side, Lunenberg stated that although only 10% of the schools are equipped with technological tools, to help students to acquire better learning, but he personally believed in increasing the percentage of using technological tools inside classrooms. As well as, designing instructional pedagogies that are based on constructivism theory, provide the main factor in having an effective cooperative learning environment (Lunenberg, 1998).

A relationship between using mobile technology, and increasing the learning effectiveness inside classrooms, was proved by (Ferris 2015). While (Zhu et al. 2012) was able to provide literature and prove that students' engagement increased after using technology. Moreover, (Von Schlicten 2015) was able to show that students master guiding their own learning, after using technology.

Late researchers, who agreed on the technology effectiveness, linked using technology with constructivism. On mentioning constructivism ,we can not discard other theories; such as activity theory, situated theory, and social constructivism for acquiring better learning, and skills. Implementing all those theories, makes a harmony in managing the classroom, for providing better learning that suits students' multiple intelligences.Based on that, we conclude that constructivism, along with other theories, are the cornerstone of using technology effectively in developing the learning level.

UAE TIMSS Analysis

For figuring out the missing factors that leads to UAE problem- according to TIMSS report 2015-, here are the steps that were considered, before implementation using technology in real classrooms in UAE:

- Political will was required in the first place to encourage decision makers to think about shifting from traditional education to technological one. Political will is not only important in designing plans and agreements, but also for providing plans for the financial issues. It is also important in providing a collaborative environment internationally; such as exchanging students initiations, and memorandum of understanding between different countries, on the educational level. The cooperative initiations, and encouraging environment allows for exchanging experiences among different students, from different contexts, on both academic and personal sides.

- Not only the political will, but also the economic will also. Both required the educational shift, in order to have a well educated students, who can compete internationally. UAE's global plans were designed in both economic, and educational sectors through economic vision and plans 2030, educational visions and plans 2025, Budgets were provided, and

educators policy makers started designing the shifting plans from traditional to technological education.

- There were a lot of efforts exerted from the policy makers' side, in order to engage technology in educational curricula. As well as, equip the teachers with the required skills to face such big shift in their instructional pedagogies. Such shift was intimidating and threatening for teachers. The new required instructional pedagogies must follow the constructivism theory, where the teacher is only a mentor who facilitates learning, instead of being the main source of knowledge, as they used to be before. Teachers were not facing only the big shift in their pedagogical plans, but they were facing mainly the problem of developing their technological skills as well, in order to be able to cope with such changes, and be able to master their students' learning process. They had to go through various workshops and attend several hours of professional development, to start the development process for their teaching skills [Knowles (1982, 1980), Knox (1977), Hall and Hord (1987), Hall and Loucks (1979), and Hord, Rutherford, and Hall (1987)]. This transition period was not such an easy for both UAE teachers and policy makers as well. It took a lot of effort to consider some aspects; such as:

- **Fear of change:** The fear of facing the failure, if the new plans did not fulfil the required outcomes.

- **Climate:** To think about how to prepare the appropriate environment to get the best impact of using technology in the educational sector.

- **Support:** To provide teachers with the appropriate support from the whole community, especially parents, who may refuse their children's new learning styles.

- **Training in basics:** To provide a high level training, in order to equip teachers to master technological skills.

- **Motivation:** To motivate teachers, as well as students to achieve better learning through using technology.

• Technological tools are various and unlimited, but as it has many advantages, it has also many disadvantages, that requires teachers, and educators to pay attention too for the decision-making process. So using technological education here is a very serious decision, as it is very important to stress on the points that not all the acquired knowledge is useful. It is important to have a knowledgable teacher to be able to control students' choices for information resources. As using constructivism in the form of allowing students to access any online resources has some disadvantages; such as:

- Students may not work properly in groups.

- Students may cause a lot of mischief, while group discussions.

- Not all technology resources are useful, as some of them are useless.

- A teacher needs to make sure that all the students inside the classroom are following, and not gaming through the technology devices.

• Students's assessment should be matching all multiple intelligences, and should include all students, despite their academic level. Teachers' should be able to design different assessment criteria for assessing different types of students. That is what was introduced to educators and teachers in professional development workshops that was presented by ADEC. Assessment should not only include students, but also teachers instructional pedagogies, to make sure that they are mastering the professional development factors.

That allows a continuous opportunity for development, for both teachers, and students. Moreover, assessing the level of parents, and other community partners' cooperation in accepting the idea of using technology in classrooms.

- Different contexts are important to be considered when discussing learning through technology. Engage a meta-cognitive thinking in web-environment inside classroom, has a good impact on learning process. However, not all parents do accept their children to learn through using mobile learning, results in showing different results in different emirates.

After discussing the main factors that were considered before implementing the idea of using technology in a real classrooms in UAE; it can be concluded that all the previously mentioned ides, key theories, and key concepts enhances the importance of balancing between advantages and disadvantages while using constructivism in designing our instructional pedagogies. This will allow a lot for social interaction among students, and will lead to have a cooperative learning environment among the whole community. At the same time, it will facilitates the decision making of choosing the appropriate technological tools that suits students' multiple intelligences, inside classrooms. Community partners also has a big role, we can mention parents and community partners who needs to cooperate by accepting the idea of using technological tools, whether technology-based distance education, or technology-enhanced classroom inside classroom. Parents have a very big role in assisting the teachers in having good impact of technology on their children's education. That is because parents also can apply constructivism basics at home, by allowing their children to dig deep for more learning and skills, but with a kind of observation.

Also for measuring the impact of using technology, we need to make sure that the subvariables in this research proposal is covered as follows:

- **Teachers' professional development:** a teacher should be able to have a PCK, and master all the single details in the subject he is teaching. The teachers as well, should be a able to facilitates learning to multiple intelligences students.

- **Students' learning needs:** A teacher should be able to consider multiple intelligences in the same classroom. As an example, if there are visual , and auditory learners, so a teachers, technological tools can be projector to provide visuals for visual students; and a tape to consider auditory students.

- **Students' mastering for self-regulating, and self-assessing skills:** Students need to master self-regulation skills to be able to redirect their own learning, and decide on what is missing in their learning journey. In addition to, mastering self-assessment skills, will enable students to assess their own learning. Those two skills will allow students continuous developing for their academic level. As well as, provide them a sense of responsibility towards the information resources that they access.

- **Parents' acceptance and cooperation:** Parents are big and important portion of the community populations. If parents refuse to cooperate, so all the classwork efforts will go in vain. Parents can provide a kind of observation at home, while their children are studying. That will enhance students' sense of responsibility, and will teach them how to act as good citizens. That is because they will have a good and role model for a complete picture of a whole community partners, who are trying to cooperate for their community development.

H. Research Methods
a. Study design

This research proposal is an analytical study, which will adapt a quantitative methodology. In specific a survey with some of the teachers who are teaching different specilizations,

headmaster, supervisors who are working directly with students inside real classrooms. The main reason of the survey is to see the teachers, and other stakeholders point of views regarding implementing the idea of introducing technology to the students with multiple intelligences, and different age group. Not only that, but also the impact on students' learning. As well as, the level of teachers' subject matter competence, and their ability to tailor professional development workshops, that are required to equip teachers and wellqualify them in order to be able to meet the new requirements of their work load. The survey's questions are designed to shed the lights on the reason behind UAE's falling behind in TIMSS report 2015. Moreover the participants' point of views in implementing the constructivism and building up on reflective, and self-assessment skills. Such skills will allow for more autonomy for students, and will help them to direct their own learning, in the most suitable way that matches their learning needs, and learning style.

b. Study setting

This research will be distributed in a school in AbuDhabi. The main reason for choosing this school, is that it is near, and I can access it easily. In this case the opportunity of meeting different teachers, headmaster, supervisors will be very easy, and accessible. Another reason for choosing this school, which is using some technological tools in introducing different levels of knowledge to different students.

c. Population and sampling

Sample of population in this research proposal is form a specific school in Abu Dhabi. Sampling in this research is following a non-probability sampling, purposive one. As the main aim of using this type of sampling, is to go for in-depth discussion, and understanding for the idea of introducing knowledge to students using technological tools. The survey

research method will be piloted , in order to know if the questions are understandable or not, so they can be adjustable.

d. Data Collection

This research proposal is measuring the impact of independent variable; which is technology, on a dependent variable; which is learning, with all its sub variables; - Teachers' professional development.

- Students' learning needs.

- Students' mastering for self-regulating, and self-assessing skills, for guiding their own learning.

- Parents' acceptance and cooperation.

The impact of independent variable on the dependent variable, will be measured using a survey instrument. The survey's scale will be including a group of teachers- around 200- , teaching different courses, inside one of Abu Dhabi's schools.

Validity and reliability is very important elements to be considered in the field of research in general, and in the field of education in particular. That is because to get a valid and reliable outcomes, your method, and analysed data should be re-doable by other researchers. Issue became more difficult if the research is a longitudinal one, or a research based on observation. In that case it is not so easy to other researcher to come up with the same method. In this research proposal the condition of validity and reliability for both research data and analysed outcomes is fulfilled, as this research proposal is based on a survey, which can be repeated back by other researchers. Data collected may be the same or may differ, according to the sampling that the other researchers decided to go for.

e. Data Collection and Analysis Plan

Data collection will be determined through SPSS software, as the data is a numerical and required a deep understanding for the responses.The SPSS will help me in:

- Manage data: To organise different data collected from the survey. As well as, collect a numerical evidence (0.7 >) that enhance the participants points of views.

- Manage ideas: To organise different point of views for different participants in the same context (how many strongly agree, agree, moderate, disagree, strongly disagree). That enables to have more deep understanding for the responses, and its impact in strengthening or weakening the assumption hypothesis.

- Visualising data: To help the interviewer to display the data resulted from the participants' responses, in the form of graphs, and other visuals. That helps more in clarifying the picture to the reader and works also wither in strengthening or weakening the assumption hypothesis.

f. Ethical Consideration

Ethical consideration for this research proposal is required before starting in distributing survey as a quantitative research method. The ethical agreement that should be handled to the participants should include a clear declaration that no teachers' names, schools' names, addresses, positions, or subjects taught will be announced. All the sample in the population will be coded, in order to prevent any kind of embarrassment, or create any type of problems to participants. This will allow for more freedom to the participants to express their opinions, and discuss any issue without facing any kind of problems. Although some participants may

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be sure that they will totally be safe and secured by not revealing any kind of information about them, but they refuse to meet the research method requirements by taking a survey, or an interview. Finally, even if participants refused to cooperate with the researcher by providing him with the required data, and even if they signed the ethical agreement, it is their choice to participate or not.

I. Strengths and weaknesses in your proposal

Few previous studies had introduced the impact of technology and using technological tools while introducing knowledge to students inside classrooms. Previous research was a kind of debate between researchers who agreed, and others who do not agree about impact of technology on learning process. The shift between the role of teacher in behaviourism and constructivism theories was the main observation for educators and researchers in previous research. Strengthen in this research proposal is caring for the educational process, in a context where the technological tools can replace the role of the teacher. Teachers neither became the main source of knowledge as previously they were during implementing the behaviourism theory.

The strength is focusing on:-

- Teachers became facilitators who mentor learning process, where technology can replace their role, so we can see in some cases that there are some students who acquire their knowledge through online channels, without exerting any effort in going to school.

- This research proposal is pointing to the importance of tailoring a specific professional development programs, in order to allow teachers to play their role effectively.

- Last strength, but not least, the survey and the targeted sample is from the same school. This is considered a strength from my point of view, as the recommendations will be more beneficial to a specific school, which will lead to better innovation.

Weaknesses:

- Same point is considered a weakness in this research proposal; which is the limitation of sample of population. The focus is in only one school in AbuDhabi. Although the survey is targeting different teachers from different specializations, but still this cannot be considered a generalisation. That is because there is a strong obligation that may prevent some teachers from expressing their opinions frankly, that is because they fear that their opinion would be known to the administration. That may lead simply for their dismissal.

Limitations

- Although it is clear in the ethical approval that their names, subjects taught would never been revealed, and they will be coded instead, but still some of them may not have the enough courage or trust to go for that step. In my own point of view, more longitudinal research is required, in different education contexts, and with larger sample of population. This will enable for more generalisation regarding the data gathered, and make the picture more clear regarding using technological tools inside classrooms, for helping students to acquire better learning.

- **J. Research Plan**

Week 1 Read about the topic **Week 2** Arrange ideas and start writing	
Week 3 Distribute survey to participants.	
Week 4 Submit the research proposal.	

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Appendices:
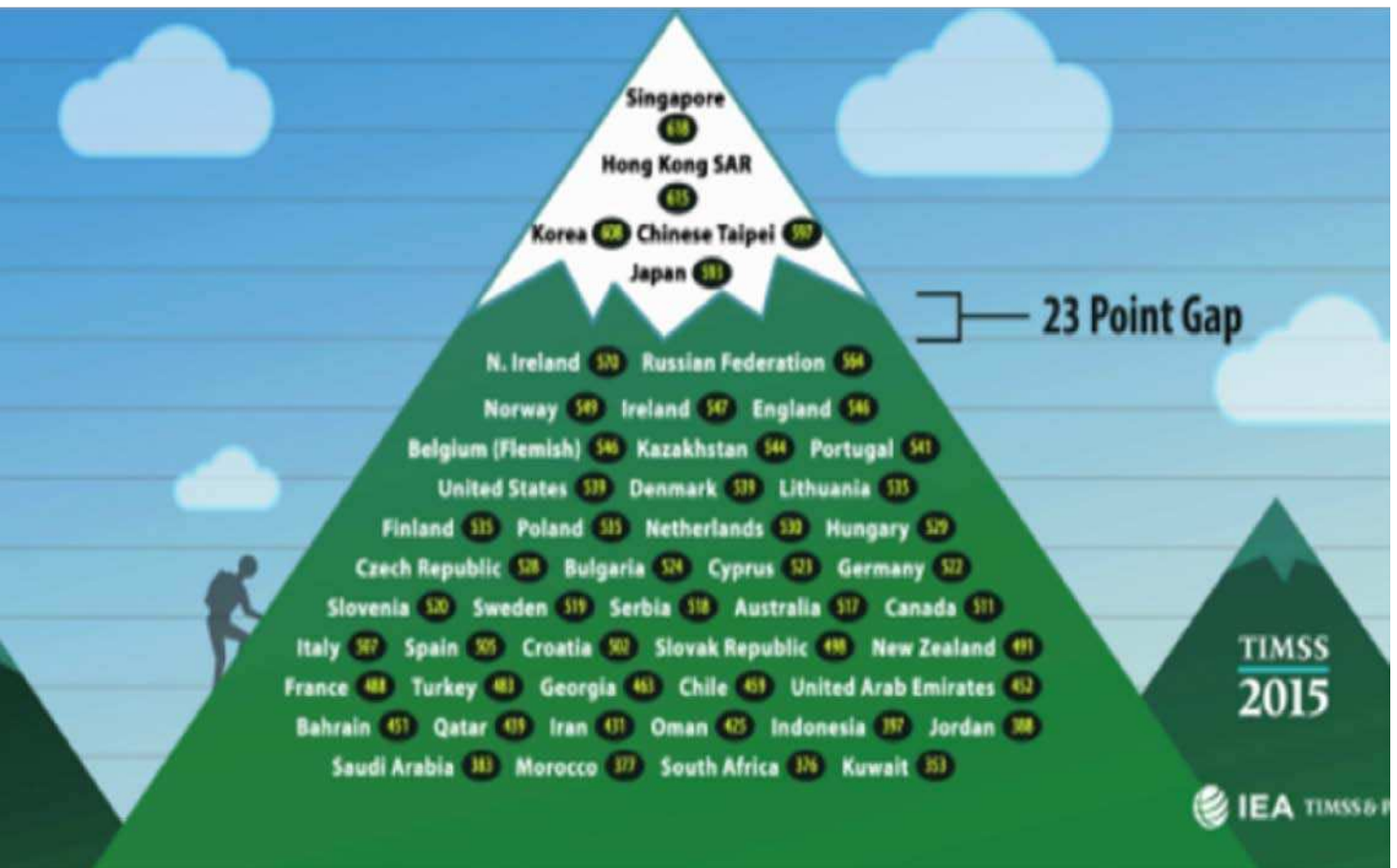
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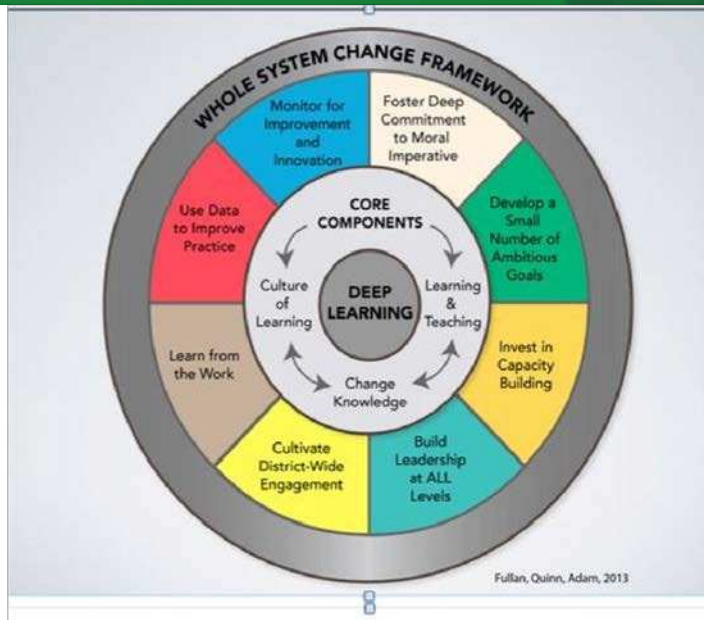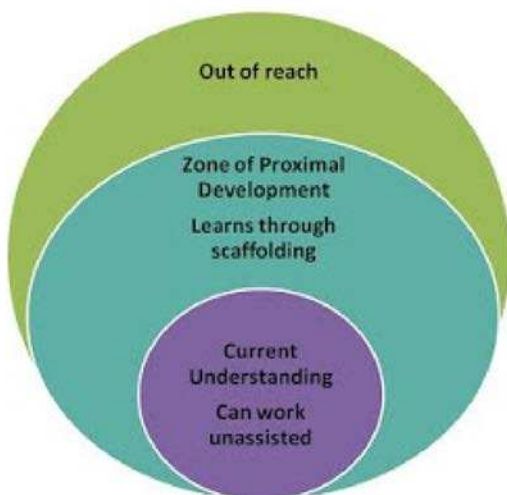
Students' Career Readiness: A Grounded Theory Study with Employers and Employees in United Arab Emirates

Shereen Mahmoud
College of Graduate Studies
United Arab Emirates University (UAEU)

Abstract

This qualitative study intended to explore the required knowledge, skills and attitudes that are important for students to be ready for career from the perspectives of employed people or employers who have different positions and experiences in public and private sectors to propose a career readiness model and policy specific to the United Arab Emirates. A grounded theory approach was used. The informants were 65 from different discipline and level of education and work experience. The researcher used the collected data to develop a readiness cycle model. In addition, different types of assessment were suggested. Moreover, suggestions were proposed for developing a policy that ensure the readiness of students after graduating from K-12 education to work.

Background

Readiness for college and career is a current hot topic in the education field all over the world. College and career readiness means that the graduating high school students must be sufficiently prepared to enter post-secondary education, training or employment, without the need for remediation, in order to take their places as independent adults and informed citizens (Conly, 2012).

In the United Arab Emirates, the issue is more important due to the scarcity of the national work force. Abu Dhabi government aims to ensure the availability of a stable supply of high quality labor to staff the economy, and especially to encourage full employment among Nationals (Abu Dhabi e-government gateway, 2009). To achieve that United Arab Emirates government allocated 12 % of total budget for education in public schools. This means that the country spends billions of Dirhams yearly to improve education. New reforms, buildings, equipment, teachers and others are deployed to achieve the vision of the country to be an example of knowledge society.

However, Abu Dhabi Education Council ADEC announced in 2012 that only 12% of students were ready to enter university after leaving the general secondary school (Bayomi, 2012). All the reforms contributed in increasing the percentage to 14% and 17% in 2014 and 2015 respectively (Bayomi, 2015). So, still more than 80% of the students in need for more fundamental study before being qualified to postsecondary education or career. This means more money is needed for preparing those students to be qualified to college. Putting in consideration that many studies clarified that skills needed to be successful in college are the same skills that are needed to be successful in the workplace (ACT, 2006; George, 2011). This indicates that the

students are not prepared for postsecondary education or for career. So, even those students who choose to work directly after school they will face many difficulties because of the lack of the required knowledge, skills and attitudes.

Moreover, the importance of the school role to prepare students to college and career emanates from the early and prolonged prospected influence of schools in students' life. Children are entering school in age of four and leave it at age of eighteen in general. They are spending six to eight hours for at least 170 days yearly. So, students spend approximately 40% of their life in schools. Dougherty claimed that it is empirically evident that students will have difficulty to catch up in the middle and high school if they were not prepared well from the beginning. Thus, not only secondary schools should be accountable for the students' readiness for postsecondary education or for career but also schools in all levels. Starting early in preparing children for the post schooling life is very important because learning need time and it is a cumulative process (Dougherty, n.d).

Furthermore, the importance of readiness for postsecondary education and career is one of the most significant goals for schooling. Weber (2015) stated that the challenge is not simply to enable students to complete high school and get them in postsecondary education but it to prepare them to succeed. I believe that this also can be applied for career because the problem is not to employ the graduated students but also to prepare them to succeed in their career.

Allocating a policy means that ADEC is emphasizing this important issue which will lead all education effort to condense toward accomplish it. Nevertheless, reviewing ADEC public policy manual elucidated that there is lack of attention toward allocating a policy to

hold school accountable for preparing students to the life after schooling. This shortage might hinder the country from achieving its vision.

Many literatures were published about the topic. These literatures defined college and career readiness and clarified different skills, knowledge and attitudes that are required to success in career or college. In addition, there are different proposal about how to apply programs that contribute in preparing the students and how to evaluate students' college and career readiness. For example, the ACT national career readiness certificate assessments tested the ability to reading for Information, applied Mathematics, locating information, applied technology, business writing, listening for understanding, teamwork, workplace observation, fit, performance and talent to measure the readiness for career (ACT, n.d.).

The center for parent information and resources stated that the students need to have knowledge and skills in English and math, social, emotional, and academic competencies; and knowledge of the diverse range of postsecondary options available to them. Moreover, Lombardi, Conley, Mary, and Downs (2013) proposed five cognitive strategies for career readiness which are problem formulation, research, interpretation, communication and precision and accuracy.

Conley (2015) clarified that supporting college and career readiness entails defining college and career readiness, align the standards and curriculum, identify and track progress indicators, teach students soft skills and change educators' mindset. Ryhan (2014) stated that preparing students for workplace entails curricula that emphases on the gaining of digital skills and competencies by applying skills to real-life situations. Inasmuch the topic

is very important for achieving the United Arab Emirates vision, it was not investigated thoroughly in its context.

The purpose

This qualitative study aimed to explore the required knowledge, skills and attitudes that are important for students to be ready for career from the perspectives of employed people or employers who have different positions in public and private sectors to propose a career readiness model and policy specific to the United Arab Emirates.

The study aims to delineate the required knowledge, skills and attitudes from experienced people perspectives to avoid the ready-made templates and to build a theory around process required to prepare students to career with the required indicators to measure the readiness of students to work in different sectors in the United Arab Emirates.

The questions

1. What do students need to be ready for the career after secondary school?

2. How students' career readiness can be measured?

The Method

A grounded theory approach was chosen because of the lack of the knowledge regarding the specific process that can lead the students in the United Arab Emirates to leave the

school with adequate qualifications that prepare them to work without the need of remedial programs.

The primary form of data collection in this qualitative approach design is interviewing participants, developing initial theory, interviewing more participants and test the theory and refine the theory to include new ideas until reaching saturation. (Creswell, 2013)

To collect data about the required indicators for career readiness, open ended question was used and sent via what's up program to participants who were chosen purposefully because of their different positions and disciplines. The question was "what are the qualification that the students after high school need to be ready for career?"

This strategy was used to avoid leading informants to choose the indicators from a ready list of qualifications. The idea was to know what the required skills from their experience. Giving people a list to choose or statements might affect their answers, while letting them answer freely will lead to compose a list emanates from the practical and real experience in the work environment in the United Arab Emirate. Then after coding the text and theorizing and clarify the issue, another question was used about how students can be evaluated to be sure that they have these indicators. This is usual practice in grounded theory where the researchers iteratively collect more data to be sure about the emerging theory (Creswell, 2013; Bernard and Ryan, 2010).

The participants

One of purposeful sampling methods where used to gather information from key informants who can benefit the purpose of the study. This sampling called theoretical sampling which is the process of sampling individuals that can contribute in building a theory (Creswell, 2013; Bernard and Ryan, 2010). In the first phase the researcher chose homogenous sampling then to confirm the theory she chose heterogeneous sample. Thus, the whole sample consisted of 65 participants contributed to the list of qualifications. Those participants are employers, managers, professional trainers, professional development coordinators, teachers, students, principals, administrative staff, social workers, nurses, engineers and others. Those participants have different academic levels: high school, bachelor, master and PhD.

Data Analysis

To get refinement list of qualification, the text was defragmented to classify the qualifications into major categories. This was done by using constant comparative method.

According to Bernard and Ryan (2010) this type of coding called focused coding.
The first list of qualifications included 52 items (Appendix A). By rereading the qualifications, they were classified by focused coding into three phases in the in the readiness cycle.

The answers of the second interview question about how to evaluate students'

qualifications was coded into three categories: testing, interviewing and practical application.

The results

The analysis of all qualifications that informants mentioned lead to the readiness cycle. This cycle includes three phases which are basic phases, continuous development phases and contributing to the success of the group. Each phase affect the previous and the next phase through two channels: emotional intelligence and communication skills. Figure 1. It is called the readiness cycle because it includes all the required knowledge, skills and attitudes that guarantee the sustainable ability to students who graduated and employed to be always ready and coping with all dynamic changes that he/ she might encounter in work.

Basic phase

According to the informants' responses, to be employed, the students will need knowledge and skills about the core business where they will work beside basic knowledge that they have gained through schooling like math and languages. In addition, they need positive attitudes toward their career. These positive attitudes will make them dedicated and feel responsible to achieve their work requirement. However, the skills and positive attitudes are not enough in challenging and dynamic work environment. Employees will face from the first day at work the reality that all the knowledge and skills they have gained are not enough. Thus, they need to be emotionally intelligent to be able to manage their selves toward facing all the challenge and tackling the problem. Emotional intelligence acts as a channel that help the self to solve its problem.
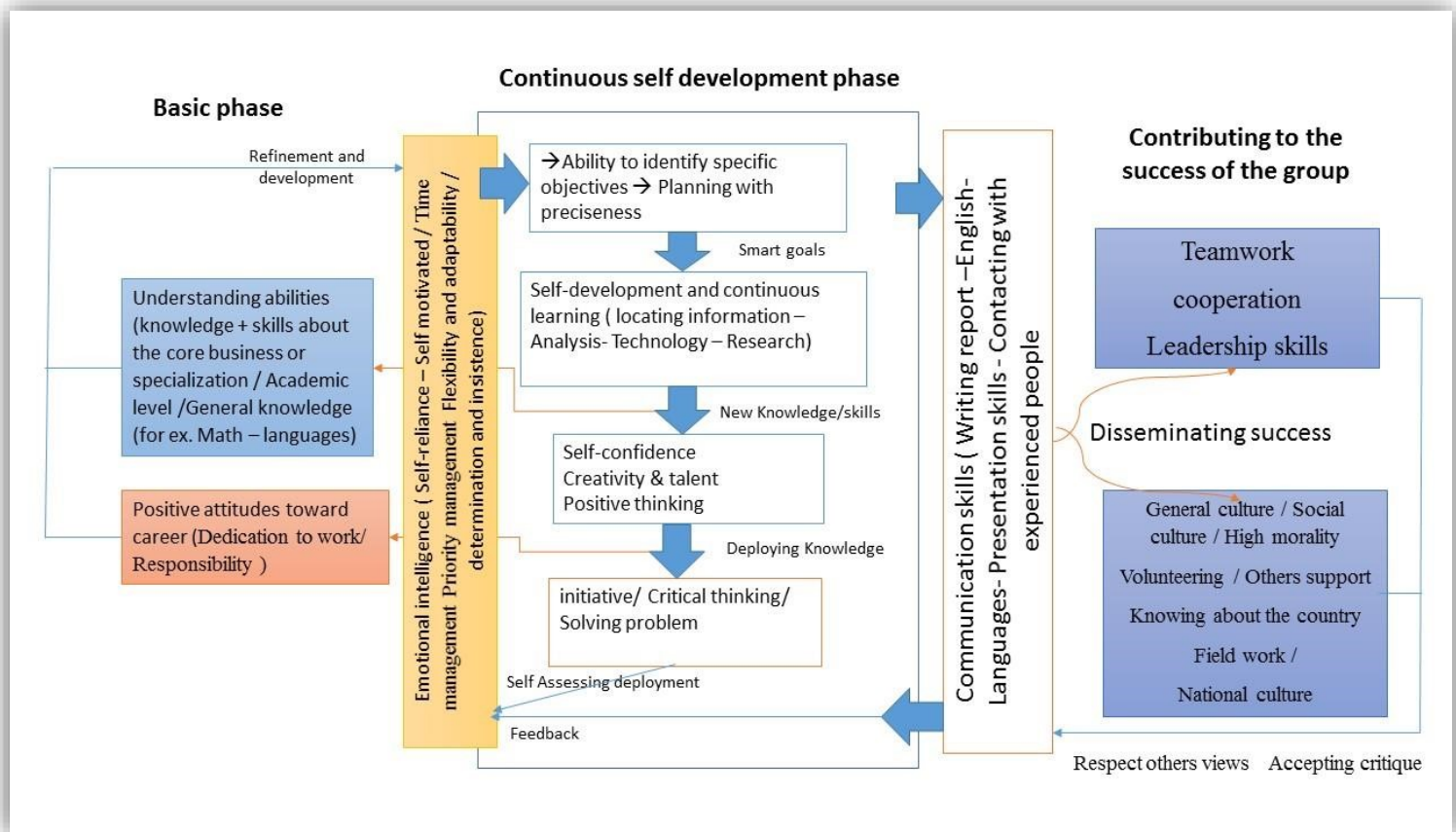
Figure 1 . The readiness   cycle .

Continuous self-development phase

With the former the students who become employed will not despair and give up because of

failing but they will inter the continuous self-development phase. Nevertheless, entering and

moving through this phase also requires many knowledge, skills and attitudes. First, they need to

be able to put smart objectives and preciseness plans. They need to be able to continue learning

through using different channels. For example, they need to have the basic research skills which

means that they know how to locate information and analyze them. Using technology in learning

is other important skills that enables self-learners to access knowledge in any time and in a

reasonable cost. These new gains will refine and develop the abilities and skills in the basic

phase.

In addition, gaining new knowledge and skills will contribute to increase self-confidence which also will encourage creativity and positive thinking. This also might contribute in refining and increasing the sense of responsibility and dedication toward the job. Critical thinking is required to harness all the knowledge and skills to solve problems and being initiative.

> Nobody can work alone, so each employee needs a channel that enables them to contribute with others to achieve success for all. This cannot be done without having effective communication skills. Analyzing informants' responses clarified the communication skills like writing reports, presenting, mastering more than one language are very important to the degree that it appears in the most responses.

Contributing to the success of the group

The third phase is about sharing the knowledge and skills with others to sustain success. With the staff, teamwork and leadership skills are required to maximize the gains. Moreover, to serve the society the employees need to know information about the field, country and the culture. They need to collaborate with other members in this community to exchange services with high morality and ethics that guarantee that all efforts are for the best of the whole society. The collaborating in the level of team or the level of community will provide the employees via the effective communication skills that they have with a feedback which will contribute in igniting the readiness cycle again.

Evaluating the readiness to career

Analyzing informants' responses clarified three categories of evaluation strategies.

Testing is the first one. Testing includes usual testing for subjects like math, English, Arabic etc. In addition, the informants talked about other type of testing like IQ tests, Emotional intelligence tests, attitude test and personality test. One of the informants claimed that personality test help students to choose their future career.

On the other hand, some informants found that using tests is not enough to evaluate qualifications that related to personality and communication skills. Those found interviews a better strategy because by face to face interview many abilities will be discovered like communication skills and self-confidence in addition to the required knowledge.

A third group of informants found that interviews are not enough to discover the real qualifications and the best way is to measure the qualifications practically by providing opportunities for training in real careers and then evaluate them based on their real performance at that career.

Discussion

The readiness cycle was theorized through the responses of the informants to delineate the qualifications required for graduated students to succeed in their future career. This included all the required knowledge, skills and attitudes need to be developed through school. The only exception is the knowledge and skills for the business which can developed through college or post-secondary training sessions and I believe that continuous self-development phase can also

contribute to tackle any gap in this area. However, even these skills might be based on basic knowledge gained in schools.

According to Piaget's four stage cognitive development. The last stage which is the formal operations emerges at about age 11 or 12 (Ormord, 2011). Ormord also clarified that students at age 12 also express all characteristic of mastering the language, moral reasoning prosocial behaviors and sense to the self. This clarify that students pass all required developmental stages in schools which elucidates to what extent the period that children spend in schools is a rich period that need to be well harnessed by educators? This criticality increases with the results of empirical research that stated the difficulty of catching up the missed knowledge and skills increase after grade eight (Dougherty, n.d). Thus, school should be responsible and hold accountable for enabling children and provide them with all the opportunities to develop all personal, cognitive, language, moral and social skills.

It was clear from the responses the essentiality of the communication skills, Languages including English, mastering using technology, academic level and self-development and continuous learning. This is coming in line with the literature reviewed (ACT, n.d; The center for parent information and resources, n.d., Lombardi, Conley, Mary, and Downs,2013; Ryhan,2014).

While it is very obvious that K-12 education is focusing on acquiring languages and knowledge in different subjects like math and science, the acquiring of digital skills and applying them to solve real life situations have not been emphasized to the same levels that other subjects reach.

Evaluation must start early from the primary school and continue until graduation from high schools. Evaluating can have different interesting forms. Testing, interviewing and practical evaluation are three forms that where suggested by respondents. Other form that appeared in the university level is E-Portfolio Assessment Management System (EAMS) which is used to assess students work by using digital media. This strategy was investigated by Tubaishat (2015) from the perspectives of the students in Zayed University in United Arab Emirates. The results of his study clarified that this method of assessment increased the trust of the students to find a job because it allows them to show their real jobs for employers that reflect their experience and competencies.

Testing for knowledge is widely used in all level of schooling. However, other types of testing like emotional intelligence testing, personality testing and attitude testing are rarely used in education system. These instruments, if they were brought from rigorous sources and adapted to be suitable for the United Arab Emirates context, can be a very useful tool to enable students to understand their selves and with constant guidance they can develop different skills that prepare them to their future career.

Interviewing is another tool that rarely faced students in schools while it might be the first evaluation tool they will encounter to be employed. Thus, it is important to be used as an evaluation tools for students in different education level especially in preparatory and secondary schools. In the interview, social and communication skills will be practiced and evaluated in addition to other skills.

Designing employment programs at schools can be a very useful experience to students. Under the guidance of educators and continuous feedback students can develop the required qualifications to be ready for work. At the end of the program each student can get a performance appraisal report with clarification for the strengths, the areas for improvement and suggestions to how they can improve these areas.

In qualitative research and to guarantee the validity of the data collected, we usually use triangulations which means collecting data from different sources. Using these three tools can be considered like the strategy of triangulation to be sure of the validity and representativeness of the data collected. So, the focus will not be only on the achievement in the core subjects but on the whole students.

From the previous I suggest issuing a policy called students career readiness policy to establish an emphasis on the importance of school roles to prepare students for career and hold school accountable for all qualification required in readiness cycle. The following are some suggestions around school prospected responsibilities:

- Provide a rich environment that give opportunities to children to growth from all aspects.
- Be sure that students attained the required basic knowledge, skills and attitudes that required by their age via using different types of testing in addition to interviewing and observations.
- In addition to the previous, preparatory schools are encouraged to design a practical program about life skills including planning for future, communication skills, positive attitudes toward leaning and working, administrative skills, using technology, teamwork and time management skills.

- Evaluating students in life skills program by using observation, interviews, and practical project that are executed in school under supervision to avoid cheating or taking the projects to library to finish it.

- Secondary schools are encouraged to design comprehensive employment program under guidance of professional instructor where students can practice all the knowledge and skills to achieve tasks and take systematic feedback to enhance their performance.

- Other scenario is to collaborate with institutions in private and government sectors to design a shared project to train students to work in real institutions under the supervision of professional instructors.

To conclude, the study was limited by the time of the semester, however the social media enabled the researcher to collect data from respondents who have different positions and education levels and from different emirates. The hypothesized readiness cycle was inducted from the participants' responses and it was used to suggest different evaluation strategies to ensure that students who graduated from high schools are ready for career and life. In addition, the researcher suggested that issuing a policy for career readiness is very important to achieve the government vision. Moreover, some practices were suggested in a hope that these practices might contribute in enhancing students' readiness to career and the life after schools.

Further studies are required to test the hypothesized readiness cycle. Thus, the researcher suggested conducting a survey that investigate the perspectives of wider sample of policy makers, educators, parents, students, job seekers, employees and employers about

the hypothesized readiness cycle. In addition, it is important to investigate the mechanisms

and curricula that are need to be used in delivering the required career readiness knowledge,

skills and attitudes by K-12 education system for all students.

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Appendix A

Table 1 Knowledge, skills and attitudes mentioned by the informants in details

Indicators	Knowledge	Skills	Attitudes	Frequency	Order Frequency

Indicators	Knowledge	Skills	Attitude	Frequency	Order Frequencys
1. Communication skills	*	*		30	2 ,1,5,3,1,3,5,2,3,3,1,5,5,4 ,3,1,1,1,5,1,3,2,5,1,1,1,3,2,2,2
2. Languages	*	*		22	3 ,2,1,4,3,3,4,3,1,4,7,2,1,2,3,1,2,2,4,3,1,1
3. Technology	*	*		21	4 ,1,2,6,2,1,2,4,2,5,2,2,2,3,1,2,3,3,3,1,3
4. Academic level	*	*		18	5 ,4,1,1,1,1,1,1,3,4,5,4,1,2,1,4,4,3
5. English	*	*		12	1,2,3,1,2,5,8,3,1,4,4,4
6. Self-development and learning			*	11	2,3,1,3,7,3,2,1,5,2,1
7. Ability to identify specific objectives		*		10	1,1,1,2,2,2,1,1,1,5
8. Ambitious			*	10	3,3,3,1,9,1,4,5,2
9. Time management		*		9	3,5,3,5,7,1,1,1,2
10. Dedication to work			*	8	6,2,6,1,2,5,3,5
11. Creativity & talent			*	8	3,4,7,4,6,13,2,2
12. High morality			*	7	1,2,1,1,2,1,3
13. teamwork				6	4,2,6,2,3,4
14. Knowledge about the core business or specialization	*			5	2,3,3,2,1
15. Self-confidence			*	5	1,1,1,1,2
16. Responsible			*	5	4,2,1,3,5
17. Research		*		5	1,1,2,1,5
18. determination and insistence			*	5	2,3,3,2,5
19. Presentation skills		*		5	2,3,11,1,1
20. Flexibility and adaptability		*		5	3,4,2,4,3
21. General culture				4	2,3,2,5
22. initiative			*	4	6,5,7,4
23. Emotional intelligence		*		4	2.5,4,1
24. Self-reliance			*	4	1413

Indicators	Knowledge	Skills	Attitude	Frequency	Order Frequencys
25. Analysis	*		4	1,4,4,4	
26. Planning	*		4	1332	
27. cooperation		*	4	2,5,10	
28. Leadership skills	*		4	1,3,2,3	

29. locating information   *   3   4,2,5
30. Writing report   *   3   2,1,4
31. Critical thinking   *   3   2,1,4
32. Positive thinking   *   3   6,1,4
33. Respect others views   *   2   2,2
34. Soft skills   *   2   3,2
35. Volunteering   *   2   4,1
36. Others support   2   2,3
37. Accepting critique   *   2   8,5
38. National culture   *   2   4,2
39. Social culture   *   1   1
40. Priority management   *   1   4
41. Initiating relations   *   1   1
42. Hard skills   *   1   4
43. Motivation   *   1   1
44. Math   *   1   3
45. Knowing about the *   1 3 country
46. Self – management   *   1   2

47. Solve problem   *   1   3
48. Preciseness   *   1   3
49. Field work   *   1   3
50. Managing resource   *   1   4
51. Contacting with   * 1 2 experienced people
52. Understanding desire   *   1   3

Extended Abstracts

Evaluating Science Teaching Practices through Action Research

Sura Sabri
The British University in Dubai

Purpose

The aim of this research study is to highlight the importance of using action research to evaluate science-teaching practices by involving teachers themselves, as they will be responsible for their own professional development. One research question driving this study is "To what extent can action research improve high school science teachers' educational practices?"

Design/Methodology/Approach

The main research approach followed in this study is qualitative. The research type is a case study, in order to establish an in-depth understanding of the effectiveness of the use of action research in improving teachers' knowledge and educational practices. This inductive investigation uses data from document analysis and semi-structured interviews, collected in two weeks' time. The main purpose of data collection is to establish a detailed description regarding the effect of action research on teaching practices for secondary science teachers in a private school in Abu Dhabi.

The tools used for this research are the recommended data collection tools for case studies, including semi-structured interviews, open-ended questions and document analysis (Merriam, 2009). Triangulation is achieved through collecting data from three different teachers using semi-structured interviews and document analysis. The open-ended questions were sent earlier for seven teachers to allow written responses as a third source of data that is used in thematic analysis. Based

on teachers' responses, three were selected for the semi-structured interview and they were asked to share their artifacts that show the improvements after implementing the action research.

The theoretical or subject scope of the study

Science teachers and self-regulation

Self-regulation is a process that is utilized by all learners in order to improve their achievements. Zimmerman, (2002; 2013) defined self-regulation as autonomic actions and behaviors performed to achieve desired targets. He identified three main phases for this process: self-control or observation, self-reflection or judgment and finally, the forethought phase, in which learners set goals and action plans for development.
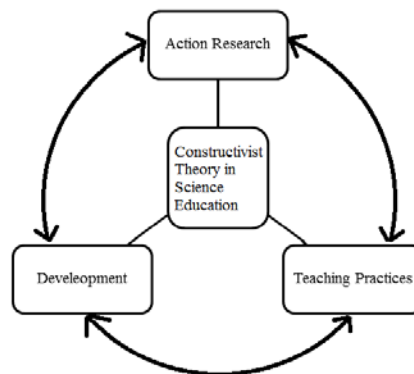
Figure 10 Educational Theories Related
to the Research

The Role of Action Research

Swanson, (2005) suggested the theory-research-development-practice cycle adopted in Figure 1, to demonstrate the correlation between the constructivist theory in science education, action research, and development and the actual teaching practice, highlighting how each of them can be considered a starting point in this cycle. Using action research, educators use their practices as a

starting point and undertake research to prove a theory or contribute to the further development of the field of education. As a type of research, action research is a systematic method in which a researcher develops a question regarding one of the teaching practices. Then, the researcher designs a procedure and selects suitable instrumentations for collecting data from students, parents or other professional staff. After that, the researcher analyzes the data and comes to conclusions that answer the question asked at the beginning, and support the development of teaching practices.

Findings

The current research study's conclusion confirms the importance of action research in closing the gap between the constructivist theory in science education and the actual classroom practices in schools. The teachers contributing to this study confirmed that they have developed the teaching techniques required to address students' needs and develop their scientific skills, after they undertook an action research. When individual teachers undertake action research to answer a specific question, and change their teaching practices, then publish their findings or communicate them to the educational field, they will contribute to the development of teaching practices.

An important aspect that can be established from this research study is regarding the fact that teachers withdrew from undertaking action research due to their workload, and not being held accountable for consistently performing action research to develop their practices, and accordingly, their students' performance. Policymakers and administrators should consider teachers' workload and permit sufficient time for the implementation of action research. In addition, new polices should be implemented to add action research to other characteristics and requirement of the teaching profession, based on the consistent implementation of action research as a part of the teaching experience.

Research Limitations / Implications

This research study was based on teachers' input and their attitude towards implementing action research, further studies can investigate the administrators' point of view and the possibility of reducing teaching loads to enforce action research policies. More studies can compare the performance of students in two different cases; if teachers undergo action research, or if teachers only address the problems without applying action research.

Practical Implications

The active involvement in action research would have several implications on Science educational practices, including the validation of the teaching profession, as it is becoming an essential requirement for teacher licensing. Additionally, the valuable improvement of individual teaching practices, as they will be based on informed research. Furthermore, the application of action research will be a source of constructive feedback for curriculum developers and school administrations to make changes in educational policies and procedures according to the teachers' practical action research results.

Originality / Value

Educational reform involves the development of several dimensions that would influence students' learning experience, including curriculum, instructions and assessment practices. Teachers have a key role in leading this reform and guaranteeing successful results (Enger, & Yager, 2009). However, this requires commitment and enthusiasm from teachers to be self-regulated, inquire about their current practices, and continuously develop their teaching strategies to attain high expectations towards their students' achievement.

In a study to describe teachers' situation of professional development in the UAE, Forawi, (2015) clarified that in order to achieve educational reform in the UAE, it is required to guarantee teachers'

initial qualification, besides managing the continuous professional development that is concerned with keeping teachers' skills and knowledge aligned with recent educational development. In his model "UAE science Teachers Professional Growth" Forawi, (2015) suggested that teachers should contribute in a research-based professional development, which is in line with the promotion of action research as a tool for self-evaluation. If teachers were directed to use action research to identify strength and weakness points in their practices, they will then be able to improve their teaching strategies, creating a better learning environment for their students as well.

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Developing Giftedness Identification Systems in the United Arab Emirates

Maqsoud Kruse

The British University in Dubai

Extended Abstract

The identification process of giftedness is the cornerstone of all forms of giftedness education programs. The ability to identify giftedness at early stages of the children development will inevitably help to bring the best out of them. Therefore, the failure to properly identify gifted students will result in mismanagement of gifted education and missing true potential (Gagné, 2013; 2015).

The current study will attempt to critically examine and methodically evaluate current identification systems for giftedness at schools in the United Arab Emirates in order to develop alternative identification systems for giftedness that are both valid and reliable. Such alternative identification systems must be culturally sensitive and consider the unique nature of the Emirati society, which is multi-cultural and diverse.

The importance and significance of this study is based on the notion that there is no one single definition of giftedness, nor there is an agreed upon measurement within the UAE educational system. Furthermore, research on giftedness education in the UAE lacks empirical foundation and is not evidence-based (Albaili, 2010; Al Obaidly, 2006; Elhoweris, 2014; Efthymiou & Elhoweris, 2015; Hersi, 2016).

The study will take into consideration comparisons between: (1) the federal level opposed to the local level in relation to policies, regulations and procedures of the identification systems for giftedness; and (2) the schooling system of the governmental sector opposed to the private sector. There are nine main questions and/ or themes in which this study is attempting to explore:

1. What is the status of gifted education in the UAE?

2. What are the current programs and/ or interventions for gifted students?

3. Is there a national policy on gifted education?

4. What should be done to develop gifted education?

5. What is the percentage of gifted students in comparison to other special needs students?

6. What are the types of giftedness identified amongst Emirati students compared to none Emirati students?

7. How are gifted students being identified?

8. How do teachers deal with gifted students?

9. What are the options for gifted students?

These broad questions and/ or themes represent the core direction(s) of the current study but it is not limited to them.

Nevertheless, the exploratory nature of the study provides many research opportunities that can be utilized in order to enhance its significance and richness. The presented questions and/ or themes are subject to change and modification once a detailed literature review and a close up examination

is conducted. A more specific and technical questions and/ or themes will be developed and carefully formulated to address appropriate research requirements for scientific investigation.

The focus of this study is on: a) the assessment of Giftedness Identification Systems in the UAE; and b) the development of Giftedness Identification Systems in the UAE. To achieve this; a two-part examination will take place: *Part (A): System Evaluation*; and *Part (B) System Development*. The two-part examination will take into consideration the broad questions and/ or themes previously discussed.

The goal of part (A) is to provide a thorough evaluation and critical assessment of Giftedness Identification Systems in the UAE. The evaluation will be conducted in two phases: *Phase one: Meta-analytical Study*; and *Phase two: Field Study*.

Phase one attempt to provide a meta-analytical examination of existing literature of the status of Giftedness Identification Systems in the UAE. This will include a thorough analysis of both the English literature and Arabic literature. Having Arabic as the researcher's native language will support efforts to analyze Arabic literature in order to communicate findings to the English-speaking world. The aim of phase one is to provide an empirical platform for phase two based on existing findings and to guide the following field study.

Phase two is the core methodology used to achieve the current study investigative goals. In phase two, the researcher will attempt to conduct a field survey and collect data from targeted populations (e.g. Giftedness Identification Systems, which will include: (a) federal and local systems; and (b) governmental and private Schools). The researcher will develop an original survey and/ or instrument(s) for collecting data for this study.

The decision for developing a new survey and/ or instrument(s) depends on the following considerations: (1) research requirements, conditions, and concerns that may need to be addressed; (2) cultural and language requirements and considerations; (4) other requirements, considerations and/ or circumstances that are not otherwise specified and/ or mentioned. Issues of translation and cross-examination will be considered prior to conducting the field study. Consequently, significant amount of translations from English to Arabic and from Arabic to English must be considered in the process. Several procedural issues may occur in relation to the translation process such as: (1) standardization of items used in the survey and/ or instrument(s); (2) conceptualization of ideas and metaphors used in the survey and/ or instrument(s); (3) consideration of cultural contexts in which these concepts are being defined and used; and (4) other translation related issues. It is very important to bear in mind the multicultural nature of the UAE despite the fact that Arabic is the official language and Arabs are the native population. However, it will be the case that survey and/ or instrument(s) items and procedures will be both in Arabic and English if we ought to have a representative sample of the UAE society.

Part (B) is based on the assessment of part (A). It is simply an attempt to introduce a more effective and better developed alternative. The researcher will attempt to generate an alternative Giftedness Identification Systems that would be best to fit existing educational policies and practices related to giftedness education in the UAE.

The proposed model will take into consideration the findings of part (A), and the existing literature derived from Giftedness Identification Systems, policy and special education research. Part (B) attempts to provide solution-based interventions and generate creative ideas for the future of giftedness education in the UAE.

The need for active advocacy for giftedness and gifted education is necessary for the advancement of giftedness research and hence, improving our methods of discovering and developing true potential amongst the gifted children.

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ABSTRACTS ONLY

Optimizing Instructional Design and Development of E-Learning Programmes in UAE Higher Education: A Potential Design for Undergraduate Education E-Learning Program

Nessrin Shaya

The British University in Dubai

Introduction

An examination of the dominant features of education and academic institutions of the third millennium shows that chief characteristics are "flexibility, inclusiveness, collaboration, authenticity, relevance and extended institutional boundaries" (Yuksel 2010, p. 1). Responsibilities of learners and lecturers have transformed significantly as educational goals have expanded to include self-directed learning, digital literacy, continuous global dialogue, attainment of meta-cognitive skills, and processes comprise holistic curricula, critical thinkers and problem-solvers (Felix 2005). The rapid evolution of knowledge-based society is partly driven by the emergence of new fundamental technologies that reshaped the forms of communication, thinking and therefore, learning, diminishing the constraints and of space and time (Collins and Halverson 2009; Raab et al. 2002). The new learning experience was coined as 'e-learning', an element of the telecommunication model of distance learning, where students and faculty are joined by technology and educational media, rather than traditional learning setup (Allen at al. 2004; Berge and Collins 1995; Liaw 2008; Raab et al. 2002). Evidence indicates that early forms of online education emerged back in the 19th century, where the fundamental principles grounding the concept of e-learning were well acknowledged (Cross 2004).

Today, more than ever, e-learning has gained better reputation and wider popularity, and has become a viable alternative to classical forms of education, poising for substantial growth over the next several years (Allen et al. 2004; Cross 2004; Liaw 2008; Hill 2002; Hofmann 2002; Owston 1997; Song et al. 2004)**.** However, despite reported benefits (Bouhnik and Marcus 2006; Liaw 2008; Mehanna 2004; Raab et al. 2002), the global inquiry remains vague as to what drives

successful learning environments? What are the prospects and challenges? As the availability and convenience of internet technologies continue to significantly grow, responses to these questions are needed more than ever (Goodyear 2001; Hofmann 2002; Song et al. 2004). Online education presents major curriculum as well as pedagogical concerns (Allen et al. 2004; Hoffman 2002), especially, that the progression and evolution in distance education is not associated with enthralling empirical evidence in achieving high learning outcomes (Song et al. 2004; Hannafin et al. 2003).

Under the current UAE educational demands, entailing profound integration of advanced technologies such as e-learning into the education system infrastructure, and given the controversial nature of online education, the main aim of the current research study is to optimize instructional design and development of E-learning programmes in UAE higher education, through multiple levels of analysis. In the following sections, the paper will address the aims and objectives, rationale, significance of the study, foundational theories, earlier relevant studies, some of the methodological aspects and conclusion.

Emirati Women and Educational Leadership: An Analysis of the leadership Styles of Emirati Women Secondary School Principals.

Soulafa Al Khatib
The British University in Dubai

Introduction:

Background:

Education in the United Arab Emirates (UAE) is facing a rapid change because of the government policy to shift to knowledge-based economy. The UAE government is allocating 20% of its budgeted expenditure on education (D'Mello 2017). The Ministry of Education ten year strategic plan for education reform 2010-2020 aims at providing high-quality education characterized by a quality curriculum, professional teaching, good and safe life for students, preserving and promoting national identity and culture and ensuring effective school leadership (D'Mello 2017).

Over the past century, numerous studies have been conducted to understand leadership and its effect on developing organizations and individuals (Jogolu & Wood 2006). With the recent changes in the field of education and the imperative role of leaders in causing growth and development, researchers were concerned about determining the qualities, characteristics and style of effective leader. The shift in the educational system in the UAE to meet the need of the country's economic growth raised the need to investigate effective educational leadership that will support in attaining the country's vision in educational reform.

Leadership studies which discussed women leadership emerged in the 1970s and since then have made a steady progress to give a better understanding of gender influence on leadership (Jogolu & Wood 2006). Studies pertaining to women leadership are numerous (Alhaj & Van Horne 2013; Blackmore 2004; Dimmock & Walker 2005; Hallinger et al. 2005); however, they are mostly developed in western societies, a context which is different than that of the UAE where this study is conducted.

Other studies have also discussed the role the national culture plays in determining the leaders' leadership styles and their relationship with their followers (Nazarian & Atkinson 2013). Individuals' behaviors, attitudes, beliefs and values reflect their culture and they also affect their leadership style (Hofstede & Hofstede 2005). So, understanding the relationship between national culture and leadership style is a must to help transfer management theories from developed countries to developing ones and check their applicability (Leung et al.2005).

Investigating the Contribution of Clinical Education in Developing the Clinical Reasoning Skills of Undergraduate Physiotherapy Students in Preparation for Professional Practice.

Senthilnathan Ramakrishnan

The British University in Dubai

Introduction:

In literatures the term "clinical reasoning" is also referred as clinical judgement, decision making, problem solving and critical thinking. Andrews and Syeda (2017) describes clinical reasoning as an ability to precisely diagnose and initiate appropriate intervention according to the problems list identified. Clinicians' ability to solve the problem is far from uniform as many factors influence clinical decision making at each step from assessment through to intervention (Lilienfeld, Ammirati and David, 2012). Clinical judgement is the focal point of clinicians' assessment decisions and it is often based on one's professional training, clinical experience, theoretical knowledge, technical and procedural skills, use of empirical evidences to support the treatment choice and the clinical practice model they believe in. Clinical reasoning is best taught in the clinical context and the clinical educators have a major role in enhancing the students' reasoning skills (Linn et al., 2012). This particular skill has a greater impact on graduates' professional practice readiness.

Clinical decision making is an integral part of healthcare practice and it is associated with clinicians thought process in day to day business to make the right judgement towards patient care (Stubbings, Chaboyer and McMurray, 2012). Sound clinical decision making skills as core competence would enhance the quality of care provided as well as it influences the clients' outcome (Thompson and Stapley, 2011). There are various factors which may affect the clinical decision making skills and understanding those factors will assist in improving the decision making in order to provide high-quality care and safe practice (Hoffman, Donoghue and Diffield, 2004). Several researchers have explored the factors influencing the clinical decision making of nurses and identified clinical experience (Traynor, Boland and Buus, 2010), education (Hagbaghery, Salsali

and Ahmadi, 2004) and environment (Bucknell, 2003) as the key factors affecting the decision making process. According to Bucknell (2003) patient's condition, physical capacity, personal resources and interpersonal skills are the important environmental factors that influences the decision making.

Wu et al., (2016) claims that staffing issues and workload problems could also interfere with the clinical decision making. There is strong debate about the relationship between the education, clinical experience and the clinical decision making. Most of the studies on these variables are qualitative in nature and to explain it in a better way quantitative study is very much needed. Other than these factors, age, area of expertise, position and understanding one's own roles and responsibilities might also contribute to the variance in clinical decision making.

Hoffman (2007) states that clinical reasoning is a multi-faceted process through which the clinicians such as medical practitioners, physiotherapist, nurses and others disciplinarians collect cues, process relevant information, understand the problem pertinent to their patients, devise and implement appropriate treatment, measure the outcome and reflect on their own practice and also learn from the whole process itself. Clinical reasoning is an integral part of competencies required for safe clinical practice and it serves mainly to bridge the gap between knowledge, skills and experience in solving real-life problems. It is a multi-dimensional skill which involves observation, reflection, judgement, inference and problem-solving skills as well as appraisal of factors related to the client status and change (Andrews and Syeda, 2017).

According to Dockter et al., (2011) clinical education is a key component of physiotherapy education programs and a quality clinical training is vital to students' learning. It is also argued that clinical education has a powerful effect on students' learning and can shape their future attitude towards work and clinical practice. Research has shown that years of experience in clinical practice is positively correlated to effective clinical instruction. Clinical educators in physical therapy adapt various teaching styles to enhance students learning among which peer coaching, supervised practice, role playing and questioning are the popular strategies used for clinical instruction. However, there is no unique clinical education model which facilitates the development of clinical reasoning skills is recommended and this study aims to develop an appropriate clinical education model that would ensure professional practice readiness of the graduates in physical therapy program.

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