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One Size Does Not Fit All: Students' Perceptions about *Edmodo* at *Al Ain University of Science & Technology*

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Abstract: The rising expectations of using technology in education and the need to meet the requirements of the 21st century students qualities motivate educators to find solutions that aim to fulfill these ends. The purpose of this study is to investigate the perceptions of students on the use of Edmodo. *Keller's Motivational Theory* (2008), the ARCS model (*Attention, Relevance, Confidence,* and *Satisfaction*), was used as the theoretical framework for the study. In this qualitative research, the researcher asked students to write reflective journals on their perception about Edmodo after it has been used in th whole semester. Fifty five journals were received from Fifty five students participated in the study which was conducted in the first semester of the academic year of 2014/2015. Accordingly, the researcher classified the ideas into common themes. The findings of the study revealed that students accept technology if it attracts their attention to its facilities and ease of use, if it is related to their interests and capabilities, if they feel confident using it and provides them with equal opportunities of learning, and if it satisfies their desires in improving their performance and achievement.

Keywords: Perceptions, Edmodo, attention, relevance, confidence, satisfaction, higher education.

1. Introduction

The rapid changes in information technology revolutionized education in the twenty-first century and provided new tools to adapt learning environments with the new trends. A great deal of these information technologies come from Internet resources (Nelson, 1998). Nowadays, cognitive scientists are using the WWW source to address individual differences between learners. In fact, two of the most motivating factors for using educational technologies are the desire to improve learning performance and increase student engagement and involvement. In other words, access to multimedia and various technologies provides opportunities to present the material in multiple representations including video, audio, and interactive tools which cater different learning styles and modal preferences (Sankey, Birch, & Gardiner, 2012). Meyers & Jones (1993) suggested that students learn more and keep more attention rates when they are more engaged in their own learning.

Integrating technology to address learning style might provide students with real – life situations and simulations which not only make their learning authentic, but also better understand the purpose of the assignment that has connection with life. Moreover, addressing learning styles through variation of instruction creates a constructivist model of teaching and learning that focuses on every student and creates a sense of collaborative group work. Johnson, Johnson, & Holubec (1994) stated that students are academically stronger and smarter when they work together in groups than when they work alone. Going back to Gardner's theory of multiple intelligences, Gardner himself proposed that in each person there are inherent different intelligences that should be cultivated in order to get their full potential. Consequently, teachers need to vary their teaching and respect the different levels of the students and give them different methods of accessing information in order for them to take advantage of the learning style they prefer.

In other words, learners will be active, reflective and creative if lecturers and teachers teach differently. The traditional transmission of information through lectures, whole-class teaching and books should be supplemented with technology to serve and give more opportunities for learners to get involved in the process (Laurillard, 2005). In most of the situations, when the material was presented in a variety of ways learners perceived that it was easier for them to improve their attention and comprehension which leads to a better academic and social achievement especially when it comes to lower – achieving students (Moreno & Mayer, 2007; Zywno, 2003). Fadel & Lemke (2008) state that, "*students engaged in learning that incorporates multimodal designs, on average, outperform students who learn using traditional approaches with single modes*" (*p*. 13). Furthermore, Shah & Freedman (2003) supported this thought by enlisting the benefits of using visualizations in learning, including: (1) supporting learning by providing an external representation of information; (2) providing deeper processing of information; and (3) making the material more attractive to the learner , hence motivating him/her to comprehend complex texts more effectively. Serwatka (2005) stated that the key ingredient to improve student achievement, engagement and retention is to address their different learning styles. Pashler, McDaniel, Rohrer, & Bjork (2008) stated that students benefit from having a particular kind of learning or information presented in one way verses another.

In this modern world, interactive technology can be a very good source for learning and teaching and can be a very powerful tool only if educators understand how human minds work (Veenema & Gardner, 1996). According to them, humans are exposed to different experiences ranging from visual, audio, motional …etc., but find themselves distinguished in one way better than the other which explains the availability of different receptive skills and humans prefer to learn in the way they find themselves stronger and more comfortable. More technically, the theory of multiple intelligences postulates that individuals are different in their mental representations and the way

they use them in different situations. So, if educators want to reach all the mental representations in their classrooms, they shouldn't treat them in *one-size-fits-all* interaction. Rather, they should base their teaching according to the different learning styles and the way students learn. Consequently and in order to give individual students the chance to learn, teaching should be varied and different mental representations should be addressed. Interactive instructional technology can achieve this purpose (Veenema & Gardner, 1996).

On the other hand, if educators do not take into consideration the varieties of learning styles and insist to teach in one way, which is not compatible with the multiple intelligences theory, students with strong traditional and linguistic skills would benefit the most (Veenema & Gardner, 1996). One can notice many students who failed in their schools but became very famous and successful people. This phenomenon might be used to explain that they were not addressed and taught in the way they can excel with, but outside the school they practiced their preferred intelligence and learning module which help them discover strong areas in their personalities and hence became leaders in their field. Gilakjani (2011) stated in his article "*Visual, Auditory, Kinesthetic Learning Styles and Their Impacts on English Language Teaching*" that students learn best if they are interested in the material given and in order to achieve this, teachers should vary their teaching methods in order to make their classrooms more stimulating and interactive.

Laurillard (2005) made it clear that educators need to understand the modern pedagogies of teaching appropriate for the twenty-first century students if they want to make a real progress in the education system. It was clear that traditional methods have not achieved much enough to support personalized learning. She confirmed that active learning in a variety of ways, from situated learning, to meta – cognition, to discovery learning, to constructivism have in common the focus on the learner as being the active participant in the whole process. She ends with the definition of knowledge as a social

construct emerged from the interaction between people rather than an abstract entity that is transmitted from one person to another.

A major benefit of presenting the material in a variety of ways is also the chance for students to experience different styles of learning, and hence challenge them to decide on the way they find themselves more comfortable and efficient as well (Picciano & Seaman, 2009). This way of challenge has been found to increase students' autonomy and control over the way they process information and progress with their performance (Karagiorgi & Symeou, 2005). It is the idea of engagement and involvement that makes researchers emphasize the idea of multiple representations of the material as it allows learners to engage in learning in the way they prefer, and at the same time challenging them to experience other styles which are not their own interests, thus making learning more holistic environment. Given (2000) mentioned several benefits for increasing the awareness of students when they identify their learning styles in their own learning. She stated that they show more interest and motivation to the material given, become more satisfied and responsible of their own learning, engage in classroom community and interact more positively in teamwork.

McCoog (2007) stated in his article "*Integrated Instruction: Multiple Intelligences and Technology*" that technology integration in education is a must because technology does not only change the way we think but also the way we teach and students learn. Furthermore, according to Gartner's multiple intelligences theory, considering which intelligence is the strongest in learners, suggests the presence of basic intrapersonal skills. In addition, McCoog confirmed that if students want to compete in the marketplace, then they should acquire twenty-first century skills including global awareness and social responsibility. In order to achieve these ends, technology must be used in teaching in order to get these skills represented in classrooms. Accordingly, teachers should differentiate their instruction and focus on student achievement. And

the first step to do this is to assess students' multiple intelligences. McCoog (2007) also stated that thoughtful and purposeful application of technology has the impact to increase students' achievement and helps differentiating instruction. It also enables students to acquire the twenty-first century skills that are necessary to compete in the competitive job market.

Jackson, Gaudet, McDaniel, & Brammer (2011) and Checkley (1997) confirmed that Howard Gardner's theory of multiple intelligences revolutionized education, because it postulates that individuals learn in a multitude of different methods and children and adults enjoy different potentials which if addressed can facilitate their learning. Technology has been found to be the method that enables students to learn at different levels effectively through a variety of software programs which give them the chance to get instant feedback and learn the way they prefer. But, in order to use multimedia technology effectively educators first should think about how people learn best and to engage learners in active learning, they should have a good understanding of the overall nature of the group as well as the ability to interact with students' unique world. Accordingly, using Howard Gardner's multiple intelligences theory in combination with sound understanding of how multimedia technology can enhance learning, might improve learning and address the diverse needs and potentials of learners.

2. Rationale and the Purpose of the Study

A good sizable body of empirical research proved that students learned best when they are taught in the ways which match their preferred learning styles (Aliakbari & Feili; Azria-Evans, 2001; Lovelace, 2005; Ogden, 2003). In other words, students learn differently from one another and their performance depends on the learning style and when they are taught with their preferred style their achievement increased (De Bello, 1986; R. Dunn, Beaudry, & Klavas, 2002). Fleming (2006) also suggested that learners have a preferred style of learning with many learners (40%) presenting as multimodal

learners; that is, they are able to access information utilizing a combination of different styles. Moreover, neuroscience research proved that to achieve significant improvement in learning requires implementing visual and verbal multimodal learning (Fadel & Lemke, 2008). In such cases, it was noticed that students were more comfortable and achieve better when the learning environment addresses their predominant learning style. This phenomenon is called "meshing hypothesis". Hazari (2004) stated that presenting the material in a variety of modes encourages and motivates students to develop a more resourceful approach to the way they learn. Picciano & Seaman, 2009) within the field of cognitive science stated that:

> "*multiple intelligences and mental abilities do not exist as yes – no entities but within a continua which the mind blends into the manner in which it responds to and learns from the external environment and instructional stimuli. Conceptually, this suggests a framework for a multimodal instructional design that relies on a variety of pedagogical techniques, deliveries, and media*". (*p*.11)

Felder, Felder, & Dietz (2002) believed that students' low performance and demotivation are the result of the mismatch between instructional methods and learning style preferences. Moreover, past research studies proved that learner's achievement is determined by native ability and the congruence between learners' learning styles and teachers' teaching styles in any classroom (Naimie, Siraj, Ahmed Abuzaid, & Shagholi, 2010). Felder & Spurlin (2005) stated:

> *"When mismatches exist between learning styles of most students in a class and the teaching style of the professor, the students may become bored and inattentive, do poorly on tests, getting discouraged about the courses, the curriculum, and themselves, and in some cases change to other curricula or drop out of school."* (*p*.2)

In addition, Fose (2006) stated that students possess different minds and they learn, remember, perform and understand differently from each other. He also mentioned that

among the seven intelligences in everyone, there is a particularly dominant intelligence. Indeed, Gardner – as cited in Fose - believed that effective education is the ultimate understanding of students' weaknesses and strengths and the manipulation of coursework to address those weaknesses and strengths and respecting the different learning styles in the educational environment. Gardner (1993) stated that human cognition is *pluralistic* rather than unitary and learners achieve higher rates of progress if they discover their points of strength and these points are simulated. This can be achieved when teachers use a variety of teaching methods and approaches which have the positive effect to learners' self-esteem and the tendency to enhance their academic success (Schumann, 1999).

Gardner (2011) conducted a study to measure the impact of multiple representations of learning outcomes, including student learning performance and engagement. Sixty participants studying at the University of Southern Queensland were chosen in a quasi – experimental design in order to be allocated to different groups which represent different configurations of study materials and presentation modes. Post – experimental survey was developed after the experiment. In order to investigate students' perceptions about their learning materials they are exposed to the experiment. Findings of the study showed that PowerPoint presentations that are enhanced with audio, and interactive diagrams were significantly different to the other learning resources and which were found to be the most helpful to students. In particular, kinesthetic learners found the audio enhanced PowerPoint very helpful to them. Interestingly, visual and kinesthetic learners indicated that the textbook reading was the least helpful to them which explains that they are at some disadvantage when the material is primarily text – based.

In addition, it was indicated in many papers that audio in online learning environments is very advantageous for student learning (R. C. Clark, Mayer, & Thalheimer, 2003; Hazari, 2004). This finding is supported in Gardiner's experiment. However, when

audio is used in conjunction with other learning resources, the advantage is more prominent. In addition, there were many studies which indicated that using verbal and non-verbal approaches of learning, which stimulate audio and video modalities, can develop the working memory of students and have significant effect on the way they think, recall information, and enjoy their learning (Calandra, Barron, & Thompson-Sellers, 2008; J. M. Clark & Paivio, 1991; R. C. Clark et al., 2003). In fact, the combination of verbal associations and visual imagery to represent information is called "*Dual Coding Theory*".

Another interesting fact about Gardiner's study is the fifty-nine comments about the reading materials provided in the study. These commands indicated that students recorded lack of interest in using reading materials or being bored of reading. The general findings of Gardiner's study indicated that students appreciate the multiple representations of the material as they assist them in their comprehension, understanding and retention of the material. They also appreciate it that technology – aided material makes it fun and enjoyable for them to learn. Consequently, educators are advised to explore the benefits of educational technology and multimedia for designing multiple representations for study materials. Naimie et al., (2010) predicted that the majority of future classrooms will turn into e-learning environments and therefore it is advisable for educators to consider learners' preferred styles of learning in order to cope with the demands of the digital learners and the changes of education mainstream which aim mainly to address all students and get the most out of them.

In 1984, David Kolb developed a very famous learning styles model which paid much attention to the internal cognitive processes in learners. D. Kolb (1984) stated that the acquisition of abstract information and concepts can be applied and processed flexibly in a wide range of situations. He also mentioned that *"Learning is the process whereby knowledge is created through the transformation of experience*". In his theory, Kolb identified four types of learners: Accommodators, divergers, assimilators, and Convergers.

Accommodators depend on concrete and active experience in organizing and learn by doing and feeling (Aşkar & Akkoyunlu, 1993; Ergür, 1998). This type of learners prefers acting on the basis of their feelings, planned working and dialogues with other people rather than mental or technical analyses. Divergers enjoy producing different abstract perspectives about issues and ideas through various ways including the most prominent skill of brainstorming. These learners are characterized by vast cultural knowledge and the ability to understand others creatively by either collecting information or brainstorming (D. A. Kolb, 1993). Assimilators, on the other hand, excel and abstract formulation of ideas and generally focus on the logic validity of ideas and theories rather than their practical values. They are very skillful in planning, creating models, conceptualizing and defining problems and developing theories to arrange for solutions. This category of learners can be challenged through exercises on organizing information, distinct ideas and theories and carrying out quantitative and qualitative analysis of data (D. A. Kolb, 1993). Finally, convergers are very good at taking advantage of ideas and theories rather than their practical forms. The prefer relating them to practical and social situations. There prominent strengths include problem-solving, decision-making, deductive reasoning and problem – detecting (D. A. Kolb, 1993).

In his study (*The Influence of Learning Styles on Learners in the E-Learning Environments: An Empirical Study*), Manochehr (2006) compared the effects of e-learning versus traditional instructor – based learning on student learning based on learning styles. He also investigated whether e-learning is more effective with a particular learning style. His study results revealed that learning styles are significant for knowledge performance. He discovered that the categories of *assimilators* (learning through lectures and papers) and *convergers* (learning through field work and observations) performed very well with e-learning. Moreover, *accommodators* (learning through case studies and

simulations) and *divergers* (learning through brainstorming) did better with traditional lecture-based teaching.

There are many benefits of varying instruction: (a) students become more interested and engaged in their learning, (b) they better understand and develop their research skills, (c) the develop a sense of teamwork spirit and support each other in their learning (Dutt-Doner, Wilmer, Stevens, & Hartmann, 2001). R. S. Dunn & Dunn (1978) claimed that when students identify their preferred learning style and learn accordingly, they will get higher scores on tests, show better attitudes and become more efficient in their analysis of data and this is the advantage of educator to teach according to students' preferred styles. Moreover, students will recognize why they learn different from others and be able to control their learning, that is, to become autonomous and take individual responsibility of learning. In sum, students will know what they want to learn and "how" (Fidan, 1986).

Finally, *Multiple intelligence teaching approaches* (MITA) as suggested by (Weber, 2001) can generate different learning opportunities and methods of teaching which boost student's achievement. So, as professionals we must provide students with real life situations and problems which support their success and make it relevant to their external interests. This can be done by integrating multimedia technology – which they use outside the classroom – into their education, i.e., connecting their external world with their internal classroom. By doing this, classrooms will become more interactive, attractive and stimulating students (Pickering, 1999). Accordingly, Naimie et al., (2010) predicted that the majority of future classrooms will turn into e-learning environments and therefore it is advisable for educators to consider learners' preferred styles of learning in order to cope with the demands of the digital learners and the changes of education mainstream which aim mainly to address all students and get the most out of them. Finally, the purpose of this study is to investigate the perceptions of students on

the use of Edmodo as a supplementary instructional tool of teaching and its effect on matching with different learning styles in classrooms.

3. The Theoretical Framework

Keller's Motivational Theory (2008), the ARCS model (*Attention, Relevance, Confidence,* and *Satisfaction*), represents a model of motivation for interaction that addresses the problems of student boredom in classrooms. Keller's primary assumption is based on the interaction between instructional materials and students. With its components, this theory discusses the importance of preparing the surrounding environment, the instruction, and students' readiness for interaction in classrooms (Jaradat, 2013). According to Keller (2008),

> *"In order to have motivated students, their curiosity must be aroused and sustained; the material must be perceived to be relevant to personal value or instrumental to accomplishing desired goals; they must have the personal conviction that they will be able to succeed; and the consequences of learning experience must consistent with the personal incentives of the learner". (p. 176)*

3.1 The ARCS Model

The ARCS model (Keller, 1987, 2001, 2008; 2006) provides a definition of motivation, a motivational design process, and recommendations for motivational strategies. It is a method for investigating the motivational appeal of instructional materials. First, there are four conceptual categories ([*A]ttention, [R]elevance, [C]onfidence, [S]atisfaction*) that include many of the specific concepts and variables that characterize human motivation. Second, it includes sets of strategies to enhance the motivational appeal of instruction; process that is called motivational design (Keller, 1987) which can be used effectively in classrooms to motivate students to interact (Song & Keller, 2001). ([A] ttention strategies arouse and sustain curiosity and interest, [R]elevance strategies link students'

needs, interests, and motives; [C]onfidence strategies help students develop a positive expectation for successful achievement; and [S]atisfaction strategies provide intrinsic and extrinsic reinforcement for effort) that have to be met for people to become and remain motivated (Jaradat, 2013).

4. Requirements of Technology Integration

Information and communication technologies will not bring the improvements in education unless we change our mindsets to use them strategically. This change includes exclusion of the idea that teacher is the master of education. Integrating technology systematically and effectively into education can increase motivation, make pedagogies more active and interactive, update teaching methods, help students and teachers discover themselves and changed the roles and relationships between students and teachers. In fact, students and teachers will become partners. Laurillard (2005) stated that if educators manage the process of integration properly, they will be able to incorporate the education process with the value of technology, thus enhancing the whole provisions of education. She also mentioned that the next step of integration is to decide what to learn and that institutions should tailor their curriculum to meet the wider expectations and needs of their learners. Laurillard also emphasized the idea of active learning. She believed that traditional methods of learning blended with e-learning offer more interactive, adaptive, collaborative, creative, and fun experience of learning. This approach can personalize learning by diagnosing and adapting the material to learner's needs.

When designing different teaching styles, educators noted that there are some limitations that might arise because many students do not realize they are favoring one way of learning over another, because nobody told them they are better or at least different from others in the way they receive information. Accordingly, understanding students' metacognition is necessary. In other words, students themselves need to

understand what is their best way of learning and teachers are supposed to diagnose their students styles of learning in order to design a curriculum that covers most of the styles found in the class. It has been proven that when students identify their points of strengths and weaknesses they evidently become more motivated to learn and engage in class discussions and assignments (Coffield, Moseley, Hall, & Ecclestone, 2004). The potential for this claim is that students can monitor their selection and use a wide range of strategies which help their learning. In addition, this strategy increases their confidence and grades because it enables them to make out the most learning opportunities that match their preferred style of learning.

In this regard, McCoog (2007) mentioned that one best way to identify strong intelligences in learners is to allow them to do projects that most interest them, because in general they would choose the intelligence that best matches their learning styles. For that reason, McCoog analyzes the nine intelligences according to their optimal learning styles. Nelson (1998) also stated that *"effective learning should be the result of careful planning, good instructional design and learners being aware of their strengths and preferences"*. Accordingly, the web – as Nelson believes - offers a variety of teaching and learning tools which might be incorporated in learning, and which help learners identify their needs and their preferred learning styles. (Veenema & Gardner, 1996) reported that if educators are targeting genuine understanding by learners, they should first identify the early mental representations and appreciate their power and preference in order to cultivate them directly and repeatedly. (Jackson et al., 2011) appreciated the integration of technology, but from their perspective, academic institutions should not only think about the benefits of technology, but should focus on how to meet and address the needs of the new learners which are grown up in a technological societies. (Valdez, (n.d.)) summarized that educators should "*raise the level of digital inclusion in education*". Eventually, learners become more engaged and responsible for their learning.

5. Difficulties of Technology Integration

First, research on the effect of technology integration and its relation to learner's preferences and learning styles is in its infancy stage (Naimie et al., 2010). Second, the problem of integrating technology equipment in institutions is not on the opportunities that these tools might bring to the advancement of learning and teaching processes, but rather on the equipment itself and the modernity and profit that it might bring to the institution (Toure, 2008). In other words, integrating technology effectively into institutions requires setting a policy environment and a curriculum which supports the integration and ensures equitable access to all parties. (Rieber & Welliver, 1989) stated that "*with no systemic plan for incorporating technology into schools, efforts fail".*

(Fose, 2006) mentioned in his paper "*Exploring Technology to Address Student Multiple Intelligences and Learning Styles*" that traditional educational systems focus on three main intelligences; *verbal – linguistic*, *logic – mathematical*, and *intrapersonal*. However, today most educators realize that students also learn in other different ways and they recognize that it's imperative to take into consideration the variety of learning styles and multiple intelligences inside one classroom. Accordingly, there should be a change in instructional design and coursework to address those variations. One of the promising ways is to integrate technology to assist student learning. But, it is a mistake to believe that technology alone can improve learning because there are other variables that should take place which ensure the proper application of technology. And in order to address these multiple intelligences in different learning styles, there should be conscious effort to construct lessons carefully to meet particular MI. One of the best ways to identify learning styles is to ask students to do projects.

On the other hand, technology can be a source of obfuscation if educators are not qualified adopting technology and if they are not clear about their goals and priorities for using it. They should plan for technology tools that enhance curriculum and consolidate the objectives of courses that are planned to be achieved by students. Also,

one of the difficulties of evaluating the impact of instructional technologies is the need to provide students with the same learning opportunities regardless of their multiple intelligences (Forte & Bruckman, 2007; Mayer, 2009).

One of the questions that were raised is the effect of imported technology on domestic cultures. Will technology lead to indigenization and cultural imperialism? Will it be a way to generate profits, export undesirable worldviews or create knowledge dependency? (Toure, 2008) reported that instructional technology provides learners with opportunities to broaden their horizons, develop their critical thinking skills, represent themselves and share their ideas with others. (Mustafa, 2012) cited in his Ed.D thesis "*Web-Assisted Instruction and its Effect on Students' Achievements and Attitudes in Nizwa College of Technology in Oman*" from (Makrakis & Yuan-tu, 1993) that if developing countries do not have well-defined goals and clear policies toward indigenization, computerization will lead to more dependency and impede the growth of the indigenous industry which accordingly will affect the national development of the country.

6. Methodology

The researcher asked his students to write reflective journals on their satisfaction on the use of Edmodo in the classroom. The course under study was called "*Teaching Diversified Environments and Teaching Students with Disabilities*" which is part of the Professional Diploma of Teaching program at *Al Ain University of Science and Technology*. Fifty five students participated in the study which was conducted in the first semester of the academic year of 2014/2015. The 55 journals were very fruitful in the insightful ideas that were generated. Accordingly, the researcher classified the ideas into common themes and then related them to one of the four conceptual categories of Killer's ARCS model: (*[A]ttention, [R]elevance, [C]onfidence, [S]atisfaction*). Table 1 shows the statistics of responses.

Table 1: ***No. of Generated Themes According to ARCS Model***

ARCS conceptual categories	Attention	Relevance	Confidence	Satisfaction
No. of related themes	**10**	**10**	**13**	**12**
No. of total themes			**45**	

7. Results and Distribution of Responses According to ARCS Model

In this section, the fifty five reflective journals generated common ideas which were classified into themes. The themes were then grouped into one of the conceptual categories of **ARCS** model. The following informative statements are example representatives of each category.

1. **Attention gaining.** This category reflects the response to students' passions (e.g., seek new knowledge) and arouse their curiosity to acquire new skills to interact with the learning activities:
    - we can contact our teacher any time and participate in discussions online
    - Edmodo creates equal opportunities for students to participate in activities
    - it is a good example to solve problems through online interaction
    - creates secure class discussion and tracks grading
    - it engages students to learn in short time
    - it engages students with other students from different schools or cultures
    - I become very interested with them

- it encourages peer-learning and peer-support environment in both situations; classroom and online discussions
- I don't feel bored with Edmodo
- parents can oversee the performance of their sons

2. Relevance. This category reflects the connection between their out-of-college experiences with their in-college experiences:

- it is a great website because it is very similar to facebook
- it is very similar to facebook and twitter and WhatsApp as we can comment, like and share things together
- It enables us –as facebook- to engage in collaborative works and discussions for free at anytime and anywhere.
- it facilitates communication inside and outside classrooms – like facebook.
- it is an educational program that combines facebook with blackberry
- it can be run on tablets, smart phones and laptops.
- using the mobile version of Edmodo makes it familiar to me
- like many other applications, Edmodo takes the idea of a social network and refines them to make it appropriate for classrooms.
- as I used similar applications before, I feel myself very familiar with Edmodo
- it provides – like facebook – instant comments and feedback

3. Confidence building. It is achieved by giving students opportunities to build positive experiences with success:

- it enables us to interact successfully with each other
- students can share and express ideas skillfully without embarrassment

- it stimulates students to use their senses properly for different situations
- I was afraid first but later I found it easy
- I thought it was a waste of time, but later I discovered that it saves time
- it empowers students by engaging them with a series of educational exercises and games
- my communication became more active with my teacher and students
- my skills with computer are improved
- I become very active in my classroom because I am skillful with technology
- it is very easy to use especially with assignments
- with Edmodo, names are not shown and we feel it as a positive privacy that solves the problem of embarrassment
- Edmodo changes our minds to be more flexible and it makes our thought fresh
- it breaks the barriers between the teacher and students

4. Satisfaction. It is when students experience satisfying outcomes to a learning task.

- using Edmodo improves my motivation, attitude and interest in learning
- Edmodo improves my higher order thinking and my skill of problem solving
- it breaks teaching routine
- it is friendly to environment as it saves paper
- it helps me improve, motivate, interact and share information between me and my friends

- it is a quick way to communicate in terms of time and place
- it helps us to get more interaction with teachers rather than going to his office
- at least, with Edmodo instruction is differentiated
- it enables students to evaluate their priorities
- teachers can give students positive reinforcement privately
- learning after Edmodo becomes easily accessed
- Edmodo can be incorporated into classrooms through a variety of applications including reading, assignments, and paper-studying

8. Discussion of Results

From the range of answers students provided in their reflective journals there are general themes which require every tool to be successful especially in the context of the study. For example, in crowded classrooms (range of 40-70), Edmodo creates every student with an opportunity to discuss issues online or address teacher individually avoiding wrong answers embarrassment. (Mustafa, 2012) mentioned in his dissertation "*Web-Assisted Instruction and Its Effects on Students' Achievements and Attitudes in Nizwa College of technology in Oman*" that Osín and Team in 1998 stated that technology devices and tools provide one of the most key ingredients of teaching tools, *individualized interactivity*. It enables students to interact with computer programs designed to react to their individual needs.

These well-designed programs have considered the learning difficulties of topics being studied and consequently they set remedial interventions to enrich students' understandings beyond the curriculum requirements. They continued to say that it is possible then to get every student actively involved in the information discussion and hence teachers and students can work in the style and the tools which permeate intellectual life. As a result of the aforementioned feature students felt proud of

themselves because they initiated online discussions with sother students from different cultures and origins. Moreover, they satisfied their technology addiction. Evidently, the researcher witnessed some students who become very interested in the subject not mainly because of the content, but because they like the technology utilized in the class. In the class under research students develop many skills in the class one of which the most important is the sense of leadership among students. This leadership spirit was the result of peer learning among students who become very cooperative and competitive in the class.

In addition, students liked Edmodo more than any software because it is very similar to Facebook which means that it is easy and reliable to them. (Mustafa, 2012) inferred that educational technologies should be related to students' interests in order to render successful. For example, Edmodo – like Facebook – enables its users to comment, like and share. Moreover, it enables them to attach files like assignments and grade sheets. So like facebook, Edmodo provided students to interact inside and outside classroom and also it can be used with smart phones and tablets. Furthermore, students reported initially that they were afraid of using Edmodo and they thought it was a waste of time and did not deserve all that effort of orientation and implementation in the class. Later, they discovered that it is easy, practical and accepted by the majority of students. Magically, one of the most notable features that teacher noticed in the time of the research is the high rate of CONFIDENCE students built through their learning. (Yau & Cheng, 2012) confirmed that:

> *Students are not motivated to learn if they do not have sufficient confidence in using technology for learning. Besides, they may create fears of the topic, skill or situation because they have negative experience in using technology for learning*. (*p. 308*)

One of the ways that built that feature were the Polls that teachers can use in which names are not shown and creates positive privacy for every participant. They started accordingly to participate more actively and with no fear to all questions addressed in the class by the teacher.

Edmodo was a very successful adoption in the classroom because it was satisfying to students. It improved their motivation, attitudes towards learning, thinking skills, and their problem solving skills. After all, it improves their achievement. (Hermans, Haytko, & Mott-Stenerson, 2009) in their published article "*Student Satisfaction in Web-enhanced Learning Environments*" concluded that student satisfaction is a very important part of any effort to successfully market higher education. They found a very strong relationship among three variables: satisfaction with the instructor, perceived ease of use of the course technology, and satisfaction with the course. In the context of the study, Edmodo satisfied students because it can be opened in smart phones at any time and any place by responding to queries and questions by typing like in a regular message.

9. Conclusion

According to students' responses and the theoretical framework used in this study, the researcher has come to a conclusion that utilizing any technological tool will depend evidently on different variables among which are the most important are four, namely; *Attention, Relevance, Confidence,* and *Satisfaction.* Students accept technology devices or software if they attract their attention to its facilities and ease of use, if it is related to their interests and capabilities, if they feel confident using it and provides them with opportunities of learning equally with every student, and if it satisfies their desires in improving their performance and achievement.

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