Research Journal of Applied Sciences 11 (9): 826-832, 2016
ISSN: 1815-932X

Role of Use of Technology and Student Motivation in Education Quality: Qualitative Insights from the Literature

Sameera Iqbal, Nazim Baluch and Che Sobry Abdullah
School of Technology Management and Logistics,
College of Business, Universiti Utara Malaysia, Changlun, Sintok, Kedah, Malaysia

Abstract: Quality education is becoming aforemost priority of the countries as it is believed to be among the pivotal engines of national competitiveness. The emergence of technology has also effected the higher education institutions and its students coupled with their motivation that opened up new ways of learning. Both variables are important in determining the education quality of the country. The current study aims to identify the role of theuse of technology and student motivation in education quality in UAE. This study is qualitative in nature and proposition have been formulated on the bases of previous literature review pertinent to the study variables and later aligned with the conceptual model of the study with the current UAE situation regarding the above mentioned study variables. Previous literature discussesuse of technology and student motivation in a relationship with quality education, however, fails to determine the exact relationship between the variables. Thus, it shows the inconsistent relationship between use of technology, student motivation and education quality in the context of UAE as well.

Key words: Quality education, use of technology, student motivation, UAE, proposition

INTRODUCTION

Many developed and developing countries are compelled to change their human resource development strategies and a mechanism to ensure their adaptability to the environmental changes due to many reasons including globalization, capitalism and intense economic competition. Now, countries have turned their education strategies in a way to produce efficient and effective human capital that ultimately enhances the nation's competitiveness. The concern pertinent to the various issues that affect education quality is outreaching in many countries such as managerial efficiency and quality education, accountability and funding. Undoubtedly, one's overall education since childhood to higher education determines the knowledge, skills and overall attitude (Michaelowa, 2007).

Development quality education and itsparameters have become aprimary concern across the various education systems. However, on the way to deliver education quality, there are issues and challenges also appearing along with unique concepts and technologies (Ng, 2007). Johnson and Golomskiis (1999) presented six quality concepts for education based on quality management principles namely understanding stakeholders, leadership, the involvement of people, factual approach to decision making, process approach and continual improvement. They further concluded that these six education quality concepts are integral for schools to deliver quality education to the students.

Education is considered as a critical element of basic needs of all human beings since 1948 when United Nations General Assembly declared education as abasic human right. It is commonly believed that quality education is the vital component that elevates the overall socio-economic status of the countries. Quality education is an important issue due to various. Firstly, education quality itself play an important role in producing quality student by enhancing skills and abilities and lowering down the dropout rate. Secondly, education quality has positive affects the lives of the students as they earn more when they stay and learn more at the school as compared to those who drop earlier. Furthermore, higher grades in studies lead to higher earnings in professional lives this phenomenon is approved through many studies of developed and developing countries. Thirdly, quality education is important for the both developed and developing countries as UNESCO declared that there is evidence that "the quality of human resources, even if only measured by test scores is directly related to individual earnings, productivity and economic growth". In today's dynamic and technology driven economy,

Corresponding Author: Sameera Iqbal, School of Technology Management and Logistics,
College of Business Universiti Utara Malaysia, Changlun, Malaysia

technology has become soul for quick and effective learning and education industry is not an exception to this phenomena.

Emergence and adoptbility of modern technology by today's education is avital source to provide quality education. Barnes and Tynan (2007) argued that "the latest generation of undergraduates already live in a world". Terms such as the "Net Generation" (Oblinger, 2003; Mccaslin and Burross, 2011) and "Digital Natives" have been used to define the young students of current era that becoming the part of universities (Prensky, 2001a, b) who are fundamentally different from that of the previous ones. Although, each generation is unique in "acquiring as shared history that lends its members asocial and cultural center of gravity", digital technology has become thesoul of social and cultural life of this "Net Generation" (Strauss *et al*., 2006). In Prensky (2001a)'s words those in the Net Generation have "spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones and all the other toys and tools of the digital age". However, this technological emergence and adoptbility caused some ramifications regarding their studies.

During studies, sometimes, student feel that what they are learning is not relevant to their own lives. Consequently, they disengaged from those subjects due to lack of motivation. However, education researchers have invented few intervention that may enhance motivation among students by developing interest and affiliation during the teaching of subjects. These interventions may promote through many approaches. For instance, a teacher can alter the task features to motivate the students through learning activities by using different technological based group projects (Hidi and Baird, 1988; Bergin, 1999; Wigfield and Cambria, 2010; Harackiewicz *et al*., 2014). So, current study seeks to explore the role of theuse of technology and student motivation in quality education by synthesizing the previous literature and formulate some propositions.

Quality education: There is a dearth of studies that discuss and define quality education, clarify the meaning of education quality and ways to improve it. Education quality can be referred to the three levels, first, input that textbooks, the amount of teacher training and a number of teachers, second, output that includes graduate rates and test scores and finally, outcomes that includes performance in the work field. Additionally, education quality may also be explained by stating that it is simply an attainment of one's targets and objectives. Adams (1998) argued that education quality encompasses various dimensions such as institutions reputation, program/course content, the extent to which schooling influence student's skills and capabilities, values, attitudes and behaviors. As with the emergence and importance of education is recognized, it brings some challenges for various stakeholders as well including institutions, parents, students and teachers, especially, about its measurement.

MATERIALS AND METHODS

Use of technology andquality education: Gros (2003) argued that "Digital Natives are said to prefer receiving information quickly; be adept at processing information rapidly; prefer multi-tasking and non-linear access to information; have a low tolerance for lectures; prefer active rather than passive learning and rely heavily on communications technologies to accessi nformation and to carry out social and professional interactions". Furthermore, according to Millea few followers of this "Net Generation" are also called "Digital Backpackers", tend to carry all components of convergent mobile devices and tools that designed to keep the multi-tasking "Net Generation" connected and "always on". On the words of Goerke and Oliver (2007)'s the content of "Digital Backpackers" backpacks are interesting not just in themselves "because of what they indicate about their owner's electronic habitats and the activities they find potentially engaging".

While deliberations of proposed technological based literacy of the Digital Natives, Digital Backpackers and Net Generation a group of people labeled as "Digital Immigrants" cannot beignored. According to Prensky (2001a) "these Digital Immigrants are seen as foreigners in the digital lands of the Net Generation and he regards the disparity between the natives and the immigrants, often lecturers as the the biggest single problem facing education today". Consequently, in order to put students at the center of high education's services, policies and facilities, educators "must take the time and effort to better understand the academic and social practices of our Net Gen students" (Gibbons, 2007).

Barnes and Tynan (2007) point out the effects of theextensive use of technology on education quality as it would decrease with the passage of time due to less interest in the relevant knowledge resulted in anincrease in drop-out ratio. Kennedy *et al*. (2008) examine the first year student of Australian university and found that some student do like to employ technology in their studies but the intensity is not that much that normally people perceive. According to NMC similar questions raised about the acceptance of smartphones as amedium of e-Learning. Another study by ECAR stated that <20% of

respondents utilized their telephones to get to the web once every week or more. Consequently, according to the study conducted in the USA, there is a frequent use of mobile technology exist among student but its usage for educational purpose is very limited (Ellis and Goodyear, 2013).

The "Generation 2020" will soon be joining marketplace these are energetic young people who were born in or after 1997. These people alsoare known as "digital natives" (Prensky, 2001) they are familiar with the technology since their childhood but are not inlined to adapt technology that underpins the interaction among people in theglobal village (Hershatter and Epstein, 2010). Since they will be affected by the technology and globalization, experts are striving to find out commonalities in generation 2020. According to Neill *et al.* (2011) there are four main attributes of Generation 2020 namely, the "Generation 2020" refers to a generation that keep connected with the world and thus their lives are affected by their internet activities (i.e., Facebook, online games, Twitter, blogs; the "Generation 2020" is more aware and sensitive to social and environmental issues; the "Generation 2020" is more inclined to contact face to face and also virtual interaction and the "Generation 2020" is more cautious their money spending and about who they listen. However, these characteristics are inadequate to get jobs in the marketplace. As pointed out by previous researchers (Hershatter and Epstein, 2010; Deal *et al.*, 2010) though this workforce is more familiar with modern technology and collaboration but organizations will judge other skills like communication, leadership, problem-solving and analytical reasoning (Lowden *et al.*, 2011).

According to Archer and Davison (2008) conducted a study on the differences between education quality that develop skills and capabilities in graduates and what required by the industry. They found that there is a significant difference between both what teach in class and what requires by the employer in thepotential human capital. In 2015, the Manpower Group, a leading organization that provides work relate solutions, conducted a survey to examine the global skills shortages. The company took information from 41,700 owners/employers extended to 42 countries to explore the problems that they face while filling the job position. Manpower Group survey concluded in the report that owner/employer reported tat 38% talent shortage was increased only in 2015. This research refers talent shortage as "the lack of available talent that leads to a difficulty in g available vacancies". Japan was distinguished as the nation with the most elevated number of businesses reporting deficiencies at 83% contrasted with 11% of Irish managers. According to Hill *et al.* (2014) number of managers complain that "recent college graduates lack the communication skills, especially writing, necessary to gain success in the business world". It was advised by Huq and Gilbert (2013) that work based learning should make part of the curriculum fill gap between curriculum and industry requirements. Knowledge and skills at the heart of work-based learning are knowledge and skills gained through active involvement in the work assignments focussing on the task at hand (Andrews and Higson, 2008), it consequently provides opportunity for the students to elevate their skills to ensure their chances of employ ability. Thus, on the bases of detail discussion, we can formulate the following proposition.

- P1: There will be a significant influence of use of technology in quality education

Student motivation and quality education: An emphasis on ecological validity in research on motivation and achievement is overdue; an essential task of researchers in the next decade is to represent students and teachers within the true conditions that they navigate in research on motivation (Mccaslin and Lavigne, 2010). Burner once challenged learning theorists to define their model of the learner rather than design curriculum and instruction materials directed at a vague and perhaps nonexistent, target. We suggest that motivation theorists do the same. The model of co-regulated learning that we describe (Mccaslin and Burross, 2008) first posits learners who: are social by nature (biological adaptations) and by nurture (socialization) (Baumeister and Leary, 1995; Geary, 2000; Olson and Caslin, 2008) have basic needs for participation and validation that can inform student dispositions toward school (Mccaslin and Burross, 2008) and differ in how and in what they participate their adaptation (Mccaslin and Burross, 2011).

Second, the co-regulation model of the learner asserts that motivation and identity are mutually informative. Both identity and motivation are based on opportunities denied, taken or missed and on the interpersonal relationships that do or do not support and validate them. Opportunities and relationships are based to a limited extent on social standards and difficulties that outline people historically and presently in time and place (Caslin, 2009) for afull explication of these and related constructs). Motivation is at the core of identity. Thus, motivations of today's learners inform not only their school achievements but also the adults they may become (Mccaslin and Lavigne, 2010).

Different types of relationships have been focused in research of motivation. Motivational patterns were studied by Ames and Archer (1988) as they are associated

with the importance of performance and mastery goals. Empirical research recommends that learning procedures used by the apprentices might be related to the level to which apprentices receive a goal orientation or performance in the classroom. Ames and Archer (1988) stated that motivation patterns of high achieving students are due to professed goal orientation of the classroom and perception of classroom climate from thestudent were associated with different variables of motivation that have an impact on the interest in learning, long-term involvement and development of self-regulated. So, these studies recommended that the achievement goal orientation may be obtained by changing the nature of students in the classroom.

To make mastery goals salient its necessary to amending the objective of the classroom and it is also essential to adopt the adaptive outline of motivations that the students have to adopt. Numerous empirical researches explain that independent motivation is associated with required results and has remunerations for scholars (Reeve *et al*., 2004; Deci *et al*., 2001). Moreover, Roth *et al*. (2007) "examine whether theautonomous motivation for teaching defined as teacher's thoughts and feelings regarding their own motivations for engaging in this occupation is indeed attached to student's self-reports of positive teacher attributes and desirable teacher behavior. Among their results, they found that autonomous motivation for teaching has positive outcomes for both teachers and students, promoting autonomous motivation for learning by improving student's perceptions of their teachers as supportive".

According to Fordham (1980) the basic idea of motivation is strongly attached with learning from school in the form of two major dimensions namely; identification of characteristics of the learning environment which are associated with intrinsically motivate behavior and involve in their own answers and second, student's prior knowledge (that they get for learning experience). The study found a positive association among integrated knowledge which is constructed from curriculum and student's level of intrinsic motivation. However, this study did not found any significant effect of thelearning environment and intrinsic motivation on student learning. But the study found indirect relations between the learning averment and basic motivation as demonstrated by the significant correlation between some loading factors of intrinsic motivation and descriptors of perceived teaching quality.

In contrast to previous research (Covington and Mueller, 2001; Deci, 1971) endeavored to development of new stance on the association between extrinsic and intrinsic motivation by critically analyzing, how the will to acquire for its own sake is reserved by the presence of incentives and extrinsic wards such as grades. The study concluded that much of what students learn and retain is assimilated out of personal attention and not for the getting high scores. Moreover, this research highlighted some issues about the line of intellectual in the way we assessment classic extrinsic/intrinsic dichotomy. Thus, this study concluded that the negative reinforces is the main cause to learn for its own sake rather than the offering of rewards per se which means that students engage in self-learning just to avoid harsh and negative upshots such as failure rather than achieving something positive such as high grades.

Research on student motivation is important, playing a key role in research about teaching and learning contexts. Pintrich (2003) highlighted the importance of a general scientific approach for research on student motivation. He delineated few appropriate future research questions, such as what motivates them in class and determining what students needs and what motivated them, what they want and whether they know and finally how motivation primes to cognition, containing the roles of culture and context. Beneath the question of what motivates students, numerous social cognitive and motivational generalizations were explored by Pintrich.

Related to our current objective in the perception of teaching quality, the research was done by Pintrich and others (Pintrich and Schunk, 2002; Hidi, 1990) stated that higher levels of both situational and personal interest are associated with higher level of achievement, more learning and more cognitive engagement. Moreover, some other studies have been undertaken from the expectancy value theory framework such as Brophy (1999), Wigfield and Eccles (2002) in which they discourse the utility, cost and importance, explain in relations of people's perceptions of the usefulness of the task or content. So, Pintrich (2003) suggested few design principles that can be derived from the value framework by providing activities and task that are useful to students and significant, permitting for some individual identification with the school and utility of activities and content and letting the classroom discussed focus on important.

Lepper and Lyengar (2005) analyzed the association between motivational orientations and age differences in academic outcomes. They conclude that there is negative relations between academic outcomes and extrinsic motivation in other words as the educational level increases the intrinsic motivation decreases (higher levels of intrinsic motivation for younger versus older), thereby concluding that there is a positive relation between academic outcome and intrinsic motivation. Lepper and

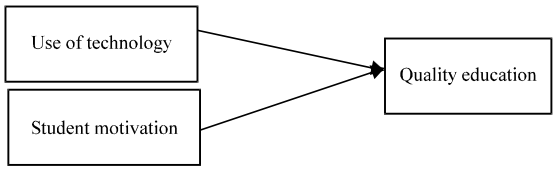

Fig. 1: Conceptual model

Corpus's study develop a scaling method (with sub-scales) calculating the extrinsic motivation that provided the base of our measure of student's motivational orientation in the study.

Noels *et al*. (1999) research are also relevant to the study. These studies determine the perception of astudent of their tutor's communicative method with respect to student intrinsic and extrinsic motivational orientations. They confirm that more grounded sentiment natural inspiration are connected with decrease of tension, more noteworthy self-assessment of skill and to positive language learning the outcome. As a significant perspective on our work for the relation among students motivation and student perceptions of teaching quality, they conclude that intrinsic motivation was significantly attached with communicative style: if the instructors are more expressed in their way of controlling and have less information then student's intrinsic motivation was much less in this style. For instance Morgan (1980) reported that variations in student's motivation are well defined in theextent literature. So, after immense literature review and delve discussion we can develop a following proposition that:

- P2: There will be a significant fluence of student motivation on quality education

Conceptual model: The following conceptual model thematically presenting the relationship between use of technology, student motivation and quality education among students (Fig. 1).

RESULTS AND DISCUSSION

Implication and discussion of the conceptual model: The World Declaration on Education for every one of the (1990) was earnest about the need of giving instruction to all kids, youth and grown-ups that are receptive to their requirements and applicable to their lives. This covered the idea of communication regarding needs based criteria. Addressing the crisis in quality learning requires redefining what education systems are for. This phenomenon is even getting more importance in the developing countries like UAE as they are emerging and making aplace in a globally competitive market.

There are innumerous instances till date where we can see the improvement in education, once it embraced technology. It is the first priority of UAE leaders to provide the best education to their citizen for a better quality of life (Badri *et al*., 2016). The 2021 vision of education clearly states that "All Emiratis will have an equal opportunity to get first rate education". According to the government national agenda, Vice President and Prime Minister of UAE and ruler of Dubai His highness Sheikh Mohammed bin Rashed Al Maktoum described "first rate education" as a complete restructuring of the education system and encouraged the use of smart devices in education.

Numerous individuals trust that the innovation in schools is thwarting under studie's capacity to think for themselves and they learn old style techniques for examination. Individuals who bolster the utilization of technology in the classroom contends that they no more need to. It's a sensitive subject that can't be fathomed just by an examination yet adapting the greater part of the points of interest and detriments of having technology in the classroom can positively give you a balanced and educated supposition.

In Smart Living City Conference in Dubai, experts say that UAE is accepting digital technology in the education sector at a high rate (Imrie *et al*., 2014). However, Dr. Mitchel Joachim who is an Associate Professor at New York University said in terms of digital education "Dubai needs more homegrown ideas that can make a global impact". UAE statistics clearly identify the demand of upgrading the educational curriculum for the purpose of making young Emiratis ready for the workplace.

Previously, usage of technology in education has been under debate in the societies. Various people presented their views to make adaptable higher education to technology. Positives and negatives effects are there of technology in education. However, as education institutions are becoming more aware and adaptable to the technology its negatives are lagging far behind than positives. Because technology is reshaping our whole education system from curriculum to lecture delivery from administration to data management from research to publications. The combination of technology and education can be an important driver to transform the whole society from backward to advance and analytical citizens.

Student motivation also affects the education quality as it urges the student to perform beyond the ordinary

efforts. Despite the huge investment in the education sector and boosting up the technology by the UAE government, UAE education system us unable to produce its own competent human capital due to lack of motivation in the students that produces poor and incompatible competencies in astudent during thestudy period. Though, the previous studies have shown a positive relationship between motivation and quality education but again in UAE the results are poor.

So, we can conclude that apart from the investing in the technology advancement and student motivation, UAE government should focus on other potential moderating variable that can affect the relationship between use of technology, student motivation and education quality.

CONCLUSION

The basic aim of the study was to synthesize the previous literature on theuse of technology and student motivation in the relationship of quality education. The current research draws a conceptual model on the basis of the previous literature and aligns it with the UAE current situation pertinent to the study variables. Literature reveals that there are contrasting views and results exist about the relationship between use of technology and education quality and student motivation and quality education that highlighted the inconsistency in the literature. So, to examine and determine the relationship of abovementioned variables, an empirical study with the moderator like 'culture' is suggested.

REFERENCES

Adams, D., 1998. Defining educational quality: Educational planning. Educ. Plann., 11: 3-18.

Ames, C. and J. Archer, 1988. Achievement goals in the classroom: Students' learning strategies and motivation processes. J. Educ. Psychol., 80: 260-267.

Andrews, J. and H. Higson, 2008. Graduate employability, soft skills versus hard business knowledge: A European study. Higher Educ. Eur., 33: 411-422.

Archer, W. and J. Davison, 2008. Graduate Employability: What do Employers Think and Want. The Council for Industry and Higher Education, London.

Badri, M., A.A. Rashedi, G. Yang, J. Mohaidat and A.A. Hammadi, 2016. Students' intention to take online courses in high school: A structural equation model of causality and determinants. Educ. Inf. Technol., 21: 471-497.

Barnes, C. and B. Tynan, 2007. The adventures of miranda in the brave new world: Learning in a Web 2.0 millennium. Res. Learn. Technol., Vol, 15.

Baumeister, R.F. and M.R. Leary, 1995. The need to belong: Desire for interpersonal attachments as a fundamental human motivation. Psychol. Bull., 117: 497-529.

Bergin, D.A., 1999. Influences on classroom interest. Educ. Psychol., 34: 87-98.

Brophy, J., 1999. Toward a model of the value aspects of motivation in education: Developing appreciation. Educ. Psychol., 34: 75-85.

Caslin, M.M.A.R.Y., 2009. Co-regulation of student motivation and emergent identity. Educ. Psychol., 44: 137-146.

Covington, M.V. and K.J. Mueller, 2001. Intrinsic versus extrinsic motivation: An approachavoidance reformulation. Educ. Psychol. Rev., 13: 157-176.

Deal, J.J., D.G. Altman and S.G. Rogelberg, 2010. Millennials at work: What we know and what we need to do if anything. J. Bus. Psychol., 25: 191-199.

Deci, E.L., 1971. Effects of externally mediated rewards on intrinsic motivation. J. Personality Soc. Psychol., 18: 105-115.

Deci, E.L., R.M. Ryan, M. Gagne, D.R. Leone, J. Usunov and B. P. Kornazheva, 2001. Need satisfaction, motivation and well-being in the work organizations of a former Eastern Bloc country. Personal. Social Psychol. Bull., 27: 930-942.

Ellis, R. and P. Goodyear, 2013. Students' Experiences of E-Learning in Higher Education: The Ecology of Sustainable Innovation. Routledge, Abingdon, England, ISBN:13-978-0-203-87297-0, Pages: 1992.

Fordham, A., 1980. Student intrinsic motivation, science teaching practices and student learning. Res. Sci. Educ., 10: 107-117.

Geary, D.C., 2000. Principles of evolutionary educational psychology. Learn. Individual Differences, 12: 317-345.

Gibbons, S., 2007. Redefining the roles of information professionals in higher education to engage the net generation. Keynote Pap. Presented Educause Australas., 2007: 260-270.

Goerke, V. and B. Oliver, 2007. Australian undergraduates' use and ownership of emerging technologies: Implications and opportunities for creating engaging learning experiences for the net generation. Australas. J. Educ. Technol., 23: 171-186.

Gros, B., 2003. The impact of digital games in education. First Monday, 8: 6-26.

Harackiewicz, J.M., Y. Tibbetts, E. Canning and J.S. Hyde, 2014. Harnessing values to promote motivation in education. Adv. Motivation Achiev., 18: 71-105.

Hershatter, A. and M. Epstein, 2010. Millennials and the world of work: An organization and management perspective. J. Bus. Psychol., 25: 211-223.

Hidi, S. and W. Baird, 1988. Strategies for increasing text-based interest and students' recall of expository texts. Read. Res. Q., 23: 465-483.

Hidi, S., 1990. Interest and its contribution as a mental resource for learning. Rev. Educ. Res., 60: 549-571.

Hill, K., G. Mehta and G.E. Hynes, 2014. Do they think they can communicate? graduate students' perceptions of their communication competencies. J. Organizational Culture, Commun. Conflict, 18: 275-286.

Huq, A. and D.H. Gilbert, 2013. Enhancing graduate employability through work-based learning in social entrepreneurship: A case study. Educ. Training, 55: 550-572.

Imrie, B.W., K. Cox, B.W. Imrie, A. Miller and A. Miller, 2014. Student Assessment in Higher Education: A Handbook for Assessing Performance. Routledge, London, England, ISBN:0-7494-2797-3, Pages: 281.

Johnson, F.C. and W.A. Golomskiis, 1999. Quality concepts in education. T.Q.M. Mag., 11: 467-473.

Kennedy, G.E., T.S. Judd, A. Churchward and K. Gray, 2008. First year students experiences with technology: Are they really digital natives? Australasian J. Educ. Technol., 24: 108-122.

Lepper, M.R., J.H. and S.S. Lyengar, 2005. Intrinsic and extrinsic motivational orientations in the classroom: Age differences and academic correlates. J. Educ. Psychol., 97: 184-196.

Lowden, K., S. Hall, D. Elliot and J. Lewin, 2011. Employers' Perceptions of the Employability Skills of New Graduates. Edge Foundation, London, England,.

Mccaslin, M.M. and A.L. Lavigne, 2010. Social policy, educational opportunity, and classroom practice: A co-regulation approach to research on student motivation and achievement. Adv. Motivation Achiev., 16: 211-249.

Mccaslin, M.M. and H.L. Burross, 2008. Student motivational dynamics. Teach. Coll. Rec., 110: 2452-2463.

Mccaslin, M.M. and H.L. Burross, 2011. Research on individual differences within a sociocultural perspective. Teach. Coll. Rec., 113: 325-349.

Michaelowa, K., 2007. The impact of primary and secondary education on higher education quality. Q. Assur. Educ., 15: 215-236.

Morgan, A., 1980. Students' approaches to studying the social science and technology foundation courses: Preliminary studies. Ph.D Thesis, Institute of Educational Technology, The Open University, Walton Hall, Milton Keynes, MK7 6AA, London, England.

Neill, M.M., D.M. Ming and M. Gosper, 2011. Student uses of technology in learning: Two lenses. Int. Technol. Smart Educ., 8: 5-17.

Ng, P.T., 2007. Quality assurance in the singapore education system in an era of diversity and innovation. Educ. Res. Policy Pract., 6: 23-24.

Noels, K.A., R. Clement and L.G. Pelletier, 1999. Perceptions of teachers communicative style and students intrinsic and extrinsic motivation. Mod. Lang. J., 83: 23-34.

Oblinger, D., 2003. Boomers gen-xers millennials: Understanding the new students. Educause Rev., 500: 37-47.

Olson, A.M. and M.M. Caslin, 2008. Students as Social Beings. 21st Century Education: A Reference Handbook. Sage, Thousand Oaks, California, pp: 87-96.

Pintrich, P. and D. Schunk, 2002. Motivation in Education: Theory, Research and Applications. 2nd Edn., Prentice-Hall, Englewood Cliffs, NJ., USA., ISBN-13: 9780130160096, Pages: 460.

Pintrich, P.R., 2003. A motivational science perspective on the role of student motivation in learning and teaching contexts. J. Educ. Psychol., 95: 667-686.

Prensky, M., 2001a. Digital natives, digital immigrants part 1. Horizon, 9: 1-6.

Prensky, M., 2001b. Digital natives, digital immigrants part 2: Do they really think differently? Horizon, 9: 1-6.

Reeve, J., E. Deci and R.M. Ryan, 2004. Self-Determination Theory: A Dialectical Framework for Understanding Sociocultural Influences on Student Motivation. In: Research on Sociocultural Influences on Motivation and Learning, McInerney, D.M. and S. van Etten (Eds.). Information Age, Greenwich, CT., pp: 31-60.

Roth, G., A. Assor, M.Y. Kanat and H. Kaplan, 2007. Autonomous motivation for teaching: How self-determined teaching may lead to self-determined learning. J. Educ. Psychol., 99: 761-774.

Strauss, W., N. Howe and P.G. Markiewicz, 2006. Millennials and the pop culture: Strategies for a new generation of consumers in music, movies, television, the internet and video games. LifeCourse Associates. Great Falls, Virginia.

Wigfield, A. and J. Cambria, 2010. Students' achievement values, goal orientations and interest: Definitions, development and relations to achievement outcomes. Dev. Rev., 30: 1-35.

Wigfield, A. and J.S. Eccles, 2002. The Development of Competence Beliefs, Expectancies for Success and Achievement Values from Childhood Through Adolescence. In: Development of Achievement Motivation, Wigfield, A. and J.S. Eccles (Eds.). Academic Press, Amsterdam, Netherlands, pp: 120-120.