



# STUDENTS' PREFERENCE ON E-LEARNING TOOLS AND BEHAVIOURAL PATTERNS ON ONLINE COURSES

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## ABSTRACT

Online education has expanded and is expected to continue growing rapidly in time along with technological innovations. It is obvious that there is a movement toward online learning which necessitates the need of more conclusive evidence on effective learning and learners' achievement. This study investigated effect of the variables: demographics (age, gender, being employed/unemployed, and computer efficacy); Internet self-efficacy; satisfaction (student-student, student-instructor, student-content interaction); and the reasons for online education preferences of students' on their achievement. Differing from previous studies the current study particularly investigates the effect of students' reasons for their preferences of online education on their success besides all other variables. The results indicated that there is a positive correlation between students' reasons for their preferences of online education and their achievement scores which was measured by their final test scores. It is not as easy to inspect the differences in student learning in online settings as in traditional ones. There is a broad range of constructs as proven predictors of academic achievement in online learning environments.

## INTRODUCTION

The conceptual paper deals with the perception and preference of students towards online education. The process of e-learning can be accompanied by demographics such as gender, age, being employed or unemployed, learners' Internet or computer self-efficacy, their characteristics and learning styles etc. are some other constructs to affect students' achievement in Online Education system. This study focuses on customers' various shopping motives through

Omni-channel adoption and level of attainment of shopping motives. Customers adopt different channels and integrate the evidence to reach the optimal shopping motives (Arumugama & Jayakrishnana, 2020). Understanding the learning preferences of students is an essential component in the implementation of pedagogies which will have the desired impact on student learning (Laurillard, 2002; Fink, 2003; Lai and Hong, 2015). The majority of students currently enrolled at contact higher education institutions form part of the generation referred to as the "Millennials" (Howe and Strauss, 1991). To achieve sustainability for human and ecological systems, universities must "become leaders in the movement to prevent global ecological collapse" (Moore, 2005, p. 326). The "development of sustainability literacy as a 'core competence'" is a priority at the heart of this (Dawe et al., 2005, p. 4). This paper focuses on how student sustainability literacy (SSL) can be embedded in the curriculum in higher education (HE), and in particular, explores current practice in using e-learning to achieve this. The sales force to engage in marketing intelligence activities. The major focal point of the present research is to recognize the effect of sports celebrity ads on the purchase intention of the buyers. Both high involvement products and low involvement products have included in the research (Arumugam, Thangaraja; Hameed, S. S; Madhavan, S, 2020). This paper takes a conceptual approach to exploring how e-learning is currently used to develop students sustainability and proposing a framework for analysing the practice of e-learning, reviewing current practice, and making recommendations for further research which may assist in improving practice in this area.

## REVIEW OF LITERATURE

Recognising this need, many universities have already developed models and frameworks for

evaluating the quality of e-learning at their institutions (Inglis, 2008). However, many are of the view that there is still a long way to go in building quality online learning environments and, in particular, in developing staff skills and general engagement with e-learning (Weaver et al., 2008). The study entirely relies on the following factors such as,

- Students' sustainability on literature
- Importance of E-Learning
- Institutional approach towards online education
- Framework for quality E-Learning process.

**(i) Students' sustainability on literacy:**

Guidance about embedding SSL in education has developed considerably over the last decade, but remains a complex conceptual field, with a variety of definitions and frameworks for analysing practice. According to Background Indian Pharmaceutical industry has significant growth in recent decades and faces hyper competition in the local and international market. Aim The primary objective of this research is to explore the medical representatives' perception towards motivational measures implemented by selected pharma companies, Chennai city (Arumugam, Subramani, Jan, & Goute, 2019). We define sustainability literacy as: having the understanding, skills, attitudes and attributes to take informed action for the benefit of oneself and others, now and into a long-term future (adapted from Forum for the Future, 2004). This definition echoes the teaching of sustainable development but avoids rather focusing only on developing conceptual understanding or only focusing on disciplines of environmental science, and specifically aims to foster the ability of students in any discipline to take effective and appropriate action. This definition is arrived at by synthesising various learning outcomes and characteristics as described below. Authors such as Moore (2005) and Dawe et al. (2005) provide useful guidance in considering the university context for change and highlighting staff attitudes and approaches. However, it is more useful to focus on learning outcomes as they are particularly important for academic staff and inform both the design of the curriculum and interactions with students.

Employee engagement has been extensively researched lately as it delivers a positive business outcome. Due to the complex competition prevailing in the automotive industry, maintaining a high-level engagement among the employees is important for long term business performance. The level of employee engagement can be improved by identifying its drivers. (Arumugam, Vimala, Khuan, & Rasu, 2019). The Centre for Sustainable Futures describe four kinds of learning outcomes: "knowledge/understanding", "cognitive/intellectual skills", "key/transferable skills", and "practical skills" (Sterling, 2008, pp. 6-7). This provides a valuable foundation, and the approach is supported by others who focus on competencies, e.g. Brundiers et al. (2010). These learning outcome types can be split into conceptual development and skill development outcomes. Marketing intelligence is area continuing and interacting structure of people, equipment and procedures that, in combination, gather, sort, analyse and distribute pertinent, timely and accurate information for use by marketing decision makers to improve their marketing planning, implementation and control. ~~any professionals~~ do much of their own information gathering and analysis, there still needs to be a clear focal point of the Marketing Intelligence System responsibility (Arumugam, Thangaraja, 2016). Conceptual development ensures that learners have an understanding of the interrelated nature of complex and seemingly intractable sustainability issues in the real world, and the pantheon of cognitive, personal and practical skills are clearly fundamental to the graduate toolkit. More specifically, skill development for SSL could include deepening cognitive skills (e.g. holistic, interdisciplinary, critical, and systems thinking) and increasing competence in practical skills (e.g. analysis of environmental or social impacts). However, two further areas of importance for developing SSL are mentioned in the literature but are not included in these competency outcomes: student identity and the development of confidence. Developing student identity, cognitive processes and confidence are challenging teaching tasks, and pedagogical transformation may be needed to enable these within HE contexts. Many recommendations (Moore, 2005) align with general advances in pedagogy: such as inclusion

of reflective discussion, or problem-based learning (PBL). Three more specific recommendations are: personal disclosure or modelling of practice by educators to assist in developing personal values of students, interdisciplinary learning (involving students from contrasting subjects) to promote “deep” and critical learning (Warburton, 2003, p. 44), and using real-world learning to reconnect learners with reality.

**(ii) Importance of E-Learning:**

The term e-learning can encompass all electronically supported learning and teaching, i.e. networked and stand-alone. E-learning can be used to deliver information and instruction and also to encourage social participation or facilitate constructive learning activities (adapted from Tavangarian et al., 2004). A strong body of theory and practice has established how e-learning can support good practice in undergraduate education: the principles build on key “traditions” of pedagogical thought such as constructivism, social constructivism, activity theory, and theories of experiential learning (Beetham and Sharpe, 2007, p. 8), and stress the importance of interaction, communication, collaboration, engagement, and feedback (Chickering and Ehrmann, 1996; IHEP, 2000) for student-centred learning. A survey method of data collection was adopted to collect primary data from small scale manufacturing organisations in a regional manufacturing cluster. The two-step structural equation modelling approach is followed to examine the relationship between critical success factors of total quality management implementation and business performance (Arumugam, Thangaraja; Jan, Akbar; Subramani, A. K, 2019). Although relevant experts (Laurillard, 2002; Naismith et al., 2004; Mayes and de Freitas, 2004) have mapped relationships between different pedagogical theories and learning activities and particular e-learning technologies or tools, such mappings should be used with caution: “An important consideration is not what tool to use, but how to use it” (Littlejohn and Pegler, 2007, p. 96). “Each activity type can be supported by more than one tool” (Littlejohn and Pegler, 2007, p. 98). The development of e-learning continues to unfold. Democratisation of content creation and personal mobile access to content

has developed over the last decade (Beetham and Sharpe, 2007) and conceptualisation of effective e-learning has broadened from narrow “content-led” approaches to become more participative (Brenton, 2009, p. 97). As technologies become more “unobtrusive” and “ubiquitous” (Kukulka-Hume and Traxler, 2007, p. 42), they are likely to prove more powerful in supporting work-based and community learning.

**(iii) Institutional approach towards online education:**

Regardless of the level of design and production support for e-learning at particular institutions, an essential feature of most of these models is that academics provide the pedagogical direction as well as the disciplinary content. Academic involvement in the process, liaising with the educational designers, ensures “real clarification of the way the materials will address the learners’ needs” (Ellis et al., 2007, p. 18). (Thangaraja, 2015) Neuromarketing focuses on relationship between consumer’s subconscious mind and the behavior. Those are the factors that decide the brand preference. FMCG sector in India is highly brand oriented, so application of neuro marketing in FMCG sector would help the marketing experts to make better use of their brand decisions. Salmon (2005, p. 205) observes that: To engage large numbers of academics, any approach must seek to ensure that ownership, not only of content but also of pedagogy, continues to lie within academic departments, but also recognizes that a wide variety of supportive mechanisms must underpin the continued developments. As a result, there have been significant variations in the quality of e-learning sites. Our framework was therefore designed to provide a structured process aimed at encouraging uptake and creating what Inglis et al. (2002, p. 217) describe as “confident and committed staff with new competencies” (Inglis et al., 2008, p. 351). Although this distributed model of development, is “slower and more challenging,” it has the advantages of “developing capacities for the longer term and keeping ‘ownership’ with the academics and their departments” (Salmon, 2005, p. 208). The central goal of any quality assurance project in higher education must always be the improvement of student learning opportunities (Ellis et al., 2007).

**(iv) Framework for quality E-Learning process:**

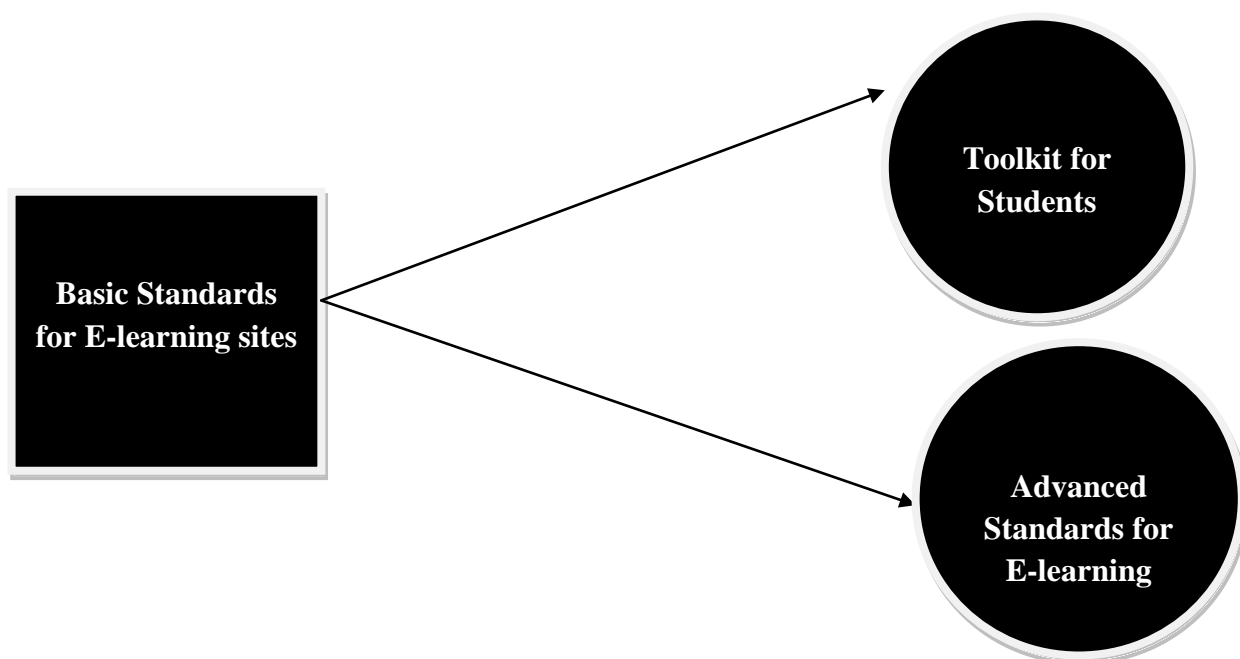
As the examination of existing models above demonstrates, there is no fixed structure for quality frameworks in e-learning. Inglis (2008, p. 348) observes that the concept is “not well defined” and that there are “no sets of descriptors that prescribe the form that a quality framework ought to take.” Our framework adopts a structure that is inherently developmental, in line with its overall quality improvement purpose. (Arumugam, Thangaraja, 2016), Distribution channels play a pivotal role in marketing by performing a number of vital distribution functions. Firms rely mostly on their marketing channels to generate customer satisfaction and to achieve differentiation over competition. It involves three interlocking parts, separately known as the basic standards for e-learning sites, the staff development toolkit, and the advanced standards for e-learning. Taken together, these three layers provide a path for the development of academic designers’ skills. The overall structural relationship between the three parts is as shown in Figure 1. In addition to the descriptions of each part of the framework that follow, further information, including full versions of the standards and criteria, self-rating checklists and the other documentation referred to as follows, is available at <http://tdu.uws.edu.au//qilt/index.htm>

**METHODOLOGY**

A review of teaching approaches was undertaken to explore the types of e-learning currently used in embedding sustainability in HE curricula. This focused on examples of practice rather than theoretical assertions, and sought recent examples (from 2000 onwards) to reflect the fast-changing developments of the field. Examples were obtained by searching a range of sources: the search began with a few books, journals and web sites with specific relevance, e.g. the Journal of Education for Sustainable Development and the Higher Education Academy’s resources on sustainability ([www.heacademy.ac.uk/education-for-sustainable-development](http://www.heacademy.ac.uk/education-for-sustainable-development)). Further searches were also carried out via ProQuest, the BEI, ERIC, and Google Scholar. Search terms such as “sustainability literacy”, and “e-learning” were developed in a grounded and iterative way during the search. 34 relevant examples were found. These included quality peer-reviewed articles and grey literature such as practitioner web sites, and ranged from evaluative papers through to semi-formal case studies.

**QUALITY FRAMEWORK ON E-LEARNING**

Students’ perception on online education can be analysed through the following framework



**Basic Standards for E-learning sites:**

The basic standards identify a baseline level of quality for all e-learning sites at UWS, with a particular focus on good quality design and functionality of sites, institutional and legal compliance and appropriate levels of support for students on and through the online learning environment (Correia et al., 2008). The basic standards are intended to apply to all levels of sites, from quite simple repository-style sites to fully online subjects. In this sense, the basic standards can operate as a stand-alone component in addition to their role as the first part of the framework.

**Advanced Standards for E-Learning:**

The advanced standards, as the name suggests, deal with advanced uses of e-learning in tertiary teaching and identify a range of features that one would expect to see in a site specifically built around pedagogical objectives. As explained earlier, at UWS the site designers are usually the academics with responsibility for teaching in the relevant subject, typically the course coordinator. (Arumugam, Thangaraja, 2016) Marketing intelligence will help the banks as well as the customers to use the technological innovations adopted by banks in an effective manner there by attracting customers. The study conclude that both the public and private sector banks compete each other in terms of attracting and retaining customers by providing comfort and luxury services such as mobile banking, online banking etc. This dual role brings with it the opportunity for the academic to design the site around explicit pedagogical objectives relevant to his or her subject and discipline. It is common ground that any statement of good practice in e-learning must be soundly based in the broader principles of good teaching practice (Oliver and Herrington, 2001; Garrison and Anderson, 2003). Consistent with this, the advanced standards focus on features of e-learning design that apply and support already well-established pedagogical principles. (Arumugam, Thangaraja, 2016) The impact of competition in the business environment has compelled many organizations to turn around and start scanning the environment for information, so as to have competitive edge over other similar organization within the industry.

**Toolkit for Students:**

One of the guiding principles in developing the framework was a recognition that engaging with the standards is also a learning process for academics. For this reason, the student development toolkit was designed to form a bridge between the basic and advanced standards, building the skills of those designers whose sites have already demonstrated compliance with the basic standards and who are looking to develop their skills and their sites further. The toolkit provides an important organising structure that facilitates learning about the principles underlying good practice in online learning.

**CONCLUSION**

The review proposed a framework for analysing practices in developing SSL. Application of this framework to a range of examples of published practice identified a range of uses of e-learning tools and approaches. The majority of these, however, took the form of supporting conceptual development through didactic information delivery. However, a more mature use of e-learning tools provides many more possibilities for developing students' interest on online studies were found in the review. There is clearly overlap in these recommendations, and beneficial synergy to be gained in implementing these changes together. These pedagogical shifts could create more powerful learning experiences for students, in both blended and distance learning modes, and foster graduates who are more confident in their ability to create more sustainable futures. Further research should be undertaken to explore and validate the issues raised by the literature review. More rigorous evaluations of the effectiveness of e-learning in developing students' participation could then be undertaken, particularly to methodically explore the potential of participative approaches to develop advanced aspects of online education.

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