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E-learning and Students' Motivation

Marina Nehme
University of Western Sydney

E-LEARNING AND STUDENTS' MOTIVATION

Marina Nehme*

'E-learning' can be defined as a method of learning that is supported by the use of information technology ('IT'). It is believed that e-learning has the power to transform the way we teach and that it may improve learning. However, when designing an online environment, lecturers do not always take into consideration certain crucial elements of teaching — including the motivation of their students. Similarly, the research has largely ignored the role of motivation in the online learning environment due to the assumption that e-learners are self-motivated and active learners. This article looks at certain elements that can be used to foster the motivation of students in the online environment.

I Introduction

'E-learning' is a general term that encompasses a range of different approaches to teaching. These include the use of online learning resources, the implementation of formal and informal assessments, and the encouragement of interaction and collaboration between students. However, all these approaches have one thing in common — the use of IT.

In short, e-learning is about learning through, and being supported by, the use of IT.[1] However, the level of reliance on IT varies. Some subjects are taught entirely online with no face-to-face interaction. Such classes are referred to, in this article, as 'online classes'. Other classes integrate e-learning with face-to-face interaction. Such classes are referred to, in this article, as 'blended classes'.[2] In blended classes, the level of e-learning used also varies from minimal to a major presence online.

* Marina Nehme, LLB, LLM (UNSW), Master by Research (UTS), Lecturer at University of Western Sydney.

1 Alan Clarke, *E-Learning Skills* (Palgrave Macmillan, 2004) 1–2.

2 Blended learning has been defined as the integrated combination of traditional learning and IT: Denise Whitelock and Anne Jelfs, 'Editorial: Journal of Educational Media Special Issue on Blended Learning' (2003) 28 *Journal of Educational Media* 99. However, the use of such terminology has been criticised by Oliver and Keith, who considered that 'there is little merit in keeping the term blended learning as it is currently understood. It is either inconsistent … or redundant': Martin Oliver and Keith Trigwell, 'Can Blended Learning Be Redeemed' (2005) 2(1) *E-Learning* 17, 19–20.

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Universities around the world have been encouraging the use of IT for a number of years. In Australia, law schools and law faculties, in particular, have been encouraging their staff to integrate e-learning into their teaching. The Faculty of Law at, for example, the University of Sydney, has done this through adopting WebCT.[3] Similarly, every subject taught by the Law School at the University of Western Sydney has an online component.

The message that seems to be sent is that the use of IT and e-learning will improve the teaching of students.[4] However, it is important to remember that IT is just one of the tools at the disposal of lecturers. IT may solve certain problems but, like any tool, it may be misused and thereby create other problems. 'Student Course Experience Questionnaires' completed by students at the University of Sydney's Faculty of Law show that the incorporation of e-learning in some law subjects can lead to a mixed reaction from learners. Some students noted that the use of 'WebCT is especially good'.[5] Others stated that 'law lecturers were not able to integrate the use of technology or online learning at all with their programs'.[6] The latter comment was especially true in cases where lecturers had simply posted 'chunks' of content onto the website for students to access.

This article concentrates on the use of IT by universities in a controlled environment, such as WebCT, Blackboard and Vista.[7] It argues that law teachers using IT need to consider a number of important matters, including the adoption of techniques that motivate students and encourage them to use the online environment. Barbara Martin and Leslie Briggs have defined motivation as a 'hypothetical construct that broadly refers to those internal and external conditions that influence the arousal, direction, and maintenance of behaviour'.[8] Motivation is of great importance because, as the research has shown, motivation influences the manner in which students learn. The more motivated a student is, the better their results will be.[9] Further, when students are motivated, as Raymond Wlodkowski noted,

[3] WebCT is a virtual learning environment that allows students to study online. Lecturers can use WebCT to post the study material online and/or make available to students other tools such as discussion boards, mails and live chats.

[4] John Biggs, *Teaching for Quality Learning at University* (Open University Press, 2nd ed, 2003) 213.

[5] University of Sydney Faculty of Law, 'Student Course Experience Questionnaire, Undergraduate Students: Analysis of Open Response Comments' (2005) <http://www.usyd.edu.au/learning/evaluating/docs/law_sceq_or_ug_2005.pdf>.

[6] University of Sydney, 'E-Learning at USYD' (2005) <http://www.usyd.edu.au/learning/evaluating/docs/2005_elearning.pdf>.

[7] All of these are controlled virtual learning environments. An assessment of the advantages and disadvantages of studying in a controlled online environment is beyond the scope of this paper.

[8] Barbara Martin and Leslie J Briggs, *The Affective and Cognitive Domains: Integration for Instruction and Research* (Educational Technology, 1986) 201.

[9] Rebecca Oxford and Jill Shearin, 'Language Learning Motivation: Expanding the Theoretical Framework' (1994) 78(1) *The Modern Language Journal* 12, 12.

'communication [between learner and lecturer] flows, discipline problems lessen, anxiety [of learners] decreases'.[10] Nevertheless, student motivation has received little attention in discussions about e-learning. In part, this is due to the fact that some lecturers may assume that students are self-motivated learners when using IT. The socio-cultural constructivist theory of learning, for example, considers that, in relation to e-learning, students are active learners and that they develop higher forms of thinking from their interaction with a range of people.[11] As a consequence, an e-learner may be seen as someone who is independent and self-motivated, and as having a positive attitude to learning and the ability to collaborate and cooperate with fellow learners.[12]

However, not all e-learners have these characteristics. First-year law students, for instance, are not used to e-learning and may need help and guidance to adapt themselves to using IT in their studies.[13] A number of these students are still trying to complete a successful transition from secondary school to university.[14] At many secondary schools, the students are 'spoon-fed': they are frequently called upon to do little more than memorise and repeat class notes provided by the teacher. At university, the learning process is different. Knowing the material is not simply about memorising the material — students are required to critically analyse and evaluate the material. For example, at law school, learners are required to develop a deep appreciation of the law under consideration.[15]

First-year law students are learning how to study independently and may find themselves in a foreign, intimidating environment.[16] In an online class, such students may be out of their element because they may be expected not only to understand the relevant concepts but to critically analyse them in a faceless and arid environment. These students may not be self-motivated. Further, they are not necessarily independent learners. They may already be experiencing problems

[10] Raymond Wlodkowski, *Motivation and Teaching: A Practical Guide* (NEA Distribution Center, 1978) 11.

[11] Angela O'Donnell, Cindy Hmelo-Silver and Gijsbert Erkens (eds), *Collaborative Learning, Reasoning, and Technology* (Routledge, 2006) 17; Panagiotes Anastasiades et al, 'Interactive Videoconferencing for Collaborative Learning at a Distance in the School of the 21st Century' (2010) 54(2) *Computers and Education* 321, 323.

[12] Clarke, above n 1, 6.

[13] Amanda Jefferies et al, 'Accessing Learning 24/7 — What Do Students Really Want from Their E-Learning Environment' in Dan Remenyi (ed), *3rd European Conference on e-Learning* (2004) 125, 129.

[14] Joe Landsberger, 'Learning by Design: An Interview with Leonard DuBoff' (2009) 53(3) *Tech Trends* 25, 27.

[15] Michael Brogan and David Spencer, *Surviving Law School* (Oxford University Press, 2nd ed, 2008) 43; Diana Oblinger, 'Boomers and Gen-Xers Millennials: Understanding the New Students' (2003) 38(4) *Educause Review* 37, 38.

[16] Jennifer Jolly-Ryan, 'Promoting Mental Health in Law School: What Law Schools Can Do for Law Students to Help Them Become Happy, Mentally Healthy Lawyers' (2009) 48 *University of Louisville Law Review* 95.

in relation to time management in their face-to-face classes due to the large number of readings they may be required to complete every week. This problem of time management may be exacerbated by the use of online classes because, in such classes, it is up to the students to decide when to study.[17] Similarly, in blended classes, students have to manage attending classes, completing all the readings and using the lecturer's site. To facilitate their transition to university, such students may require guidance and encouragement to boost their confidence.[18] If lecturers do not attempt to create circumstances that influence and motivate, students may face a number of difficulties in their studies, even leading to failure.[19]

It is important to remember that legal education is significantly different from other educational environments. Some teaching techniques that are relied on in legal education may not be successfully used in interdisciplinary subjects and vice versa. Some techniques may have to be adapted to the legal discipline and as a result new motivation techniques may need to be developed.[20] Many law teachers also equate interaction with learning. For example, the Socratic case method requires the academic to ask a series of questions which the students have to answer. To ensure such engagement, motivation techniques are needed to enhance the interaction between learners and teachers.[21]

This article is divided into two parts. The first part looks at certain elements that, if taken into consideration when designing an online environment, may help to motivate students. The second part describes certain methods that may be used in e-learning to encourage motivation in students.

II Certain Elements That May Be Considered When Establishing an Online Presence in Any Subject

According to Carl Rogers' person-centered theory, motivation essentially comes from within a person.[22] However, lecturers can encourage motivation in their students by creating circumstances that influence and compel students to study and be involved in class.

[17] However, it is important to acknowledge that a number of students have to work and, consequently, e-learning may provide them with an opportunity to fit their study around their work schedule.

[18] Barbara Brunner, 'Before They Even Start: Hope and Incoming 1Ls' (2010) 48 *Duquesne Law Review* 473, 476.

[19] Paula Lustbader, 'You Are Not in Kansas Anymore: Orientation Programs Can Help Students Fly over the Rainbow' (2008) 47 *Washburn Law Journal* 328, 350–351.

[20] Paul Maharg, *Transforming Legal Learning* (Ashgate, 2008) 42.

[21] Abdul Paliwala, 'Socrates and Confucius: A Long History of Information Technology in Legal Education' (2010) 1(1) *European Journal of Law and Technology* <http://ejlt.org//article/view/12>.

[22] Carl Rogers, *Client Centered Therapy: Its Current Practice* (Houghton Mifflin, 1965).

In an online environment — as in a face-to-face environment — the lecturer needs to take into consideration a number of elements in order to create circumstances that motivate students. Abraham Maslow's 'Theory of Growth Motivation' notes that fulfilling the needs of people is crucial to increasing their motivation.[23] Some of the needs which Maslow refers to relate to safety, belonging and esteem.[24] Consequently, to enhance the motivation of students, such needs may have to be taken into consideration by lecturers when designing their e-learning activities. Further, Gilly Salmon's teaching and learning online model provides a five-stage model to create effective online activities that engage the learners. The first stage in designing such online activities relates to access and motivation.[25]

Accordingly, achieving the first stage and fulfilling the needs of students will require lecturers to take into account a number of considerations, two of which are:

- knowledge of the audience (the learners) to be able to detect the students' needs; and
- awareness of students' anxiousness, because such anxiety may have a negative impact on their accessibility and motivation.

A *Importance of Knowing Your Audience*

The concept that higher cognitive functions find their origins in social processes may be considered the most widely recognised of Lev Vygotsky's 'Theoretical Foundations' themes. According to this theory, students' cultural and social experiences may affect the manner in which they study and their levels of motivation.[26]

Applying this theory raises the awareness of lecturers regarding the importance of knowing their audience — each audience has different characteristics and is motivated in different ways.[27] When using e-learning, one size does not fit all. What may work for business students studying law may not work for law students. First-year law students. All students should not be treated in the same manner and this has to be taken into consideration when designing online activities. Similarly, a number of full-time students are working part-time. Their work may impact their studies and, consequently, these

[23] Abraham Maslow, *Motivation and Personality* (Harper and Row Publishers, 3rd ed, 1987) 3.
[24] Ibid.
[25] Gilly Salmon, *E-Activities: The Key to Active Online Learning* (RoutledgeFalmer, 2002) 11.
[26] O'Donnell, Hmelo-Silver and Erkens (eds), above n 11, 19.
[27] Judith Parker, 'The Online Adult Learner: Profiles and Practices' in Terry Kidd (ed), *Online Education and Adult Learning: New Frontiers for Teaching Practices* (Information Science Reference, 2010) 2.

students may require more flexible modes of learning to enhance their learning experience.[28]

Accordingly, it is important to take into consideration the characteristics of students in order to be aware of their needs. A lecturer should consider who the e-learners are.[29] Are they mature-aged students? Are they international students? Are they working full time? How can they manage their time? How will e-learning improve the quality of their learning experience? Studies have shown that mature students are more likely to be motivated to use online technology due to the flexibility it offers them. However, in practice, certain lecturers who use e-learning do not ascertain the identity of their audience because there is a tendency to treat all students in the same way in an online environment.[30]

Lecturers can determine the characteristics of their students in a number of ways. They could, for example, access past data to check the habitual characteristics of students they are teaching. They could also be proactive; for example, they could conduct an online survey of their students before or at the start of the semester. Such information allows a lecturer to design online learning activities that motivate and encourage these particular students.[31] Furthermore, such information may help to bridge the gap between 'what is' and 'what should be'.[32] Willis noted the following in that regard:[33]

> To better understand the distant learners and their needs, consider their ages, cultural backgrounds, interests, and educational levels. In addition, assess their familiarity with the various instructional methods and delivery systems being considered, determine how they will apply the knowledge gained in the course, and note whether the class will consist of a broad mix of students or discrete subgroups with different characteristics (eg, urban/rural, undergraduate/graduate).

As a consequence, the more information that is obtained about the various categories of students, the better the lecturer can customise their teaching.[34] To this end, in 2008, the law school at the University of Western Sydney trialled a program that helps its lecturers to determine the characteristics of first-year law students by inviting these learners to meet the first-year advisors. Such interviews also

[28] Craig McInnis and Robyn Hartley, *Managing Study and Work: The Impact of Full-Time Study and Paid Work on the Undergraduate Experience in Australian Universities* (2002) Department of Education, Science and Training, 2 <http://www.dest.gov.au/archive/highered/eippubs/eip02_6/eip02_6.pdf>.

[29] Oblinger, above n 15, 38.

[30] Rena Palloff and Keith Pratt, *Building Learning Communities in Cyberspace: Effective Strategies for the Online Classroom* (Jossey-Bass Publishers, 1999) 8.

[31] Badrul Khan, *Managing E-Learning: Design, Delivery, Implementation and Evaluation* (Idea Group, 2005) 183.

[32] Barry Willis, *Instructional Development for Distance Learning: ERIC Digest* (1993) Ericae.net <http://ericae.net/db/edo/ED351007.htm>.

[33] Ibid.

[34] Khan, above n 31, 184.

ensure that the students meet the first-year advisors and start forming a connection with them. The use of data received from interviews conducted with first-year law students may help lecturers to design their activities around these students' characteristics, ultimately improving the learning experience of the students and motivating them.

B *Anxiety That May Affect E-Learners*

Another element that should be taken into consideration by lecturers when designing online or blended classes is the technological ability of their audience. Charles Clarke noted that 'e-learning has the power to transform the way we learn, and to bring high quality, accessible learning to everyone — so that every learner can achieve his or her full potential'.[35] Such a statement has great appeal; however, it may ignore the range of socioeconomic and cultural inequalities that may prevent people from accessing the internet.[36] While a survey conducted in 2008–09 found that 72 per cent of Australian households had home internet access, and 78 per cent had access to a home computer,[37] there are still people who do not have any access to these technologies. For instance, people in regional and rural areas of Australia have lower rates of access to the internet than people living in major cities.[38] Further, rates of access may vary depending on the household's income. Individuals living in households with an income of $2000 or more per week are three times more likely to have broadband access than individuals with an income of less than $600 per week. Only 34 per cent of people on a low income have access to the internet from their homes. Indigenous people living in remote areas are less likely to have access to the internet.[39]

Additionally, a range of people are completing their tertiary studies today. Students may be part of the Y Generation, part of the X Generation or Baby Boomers.[40] Making the assumption that all students are technology savvy has its risks because it presumes that

35 Charles Clarke, *Towards a Unified e-Learning Strategy* (DfES Publications, 2003) 2.

36 Richard Joiner et al, 'Gender, Internet Identification, and Internet Anxiety: Correlates of Internet Use' (2005) 8(4) *Cyber Psychology and Behavior* 371, 371.

37 Australian Bureau of Statistics, *Household Use of Information Technology 2008–09* (16 December 2009) <http://www.abs.gov.au/Ausstats/abs@.nsf/0/acc2d18cc958bc7bca2568a9001393ae?OpenDocument>.

38 The computer literacy of students is not unique to Australia but is a phenomenon developing around the globe: Jason Frand, 'The Information-Age Mindset: Changes in Students and Implications for Higher Education' (2000) 35(5) *Educause Review* 15, 15.

39 Australian Bureau of Statistics, *Patterns of Internet Access in Australia 2006* (18 January 2008) <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8146.0.55.001/>.

40 Oblinger, above n 15, 38.

all students have the necessary skills to study online, which may not be the case for Baby Boomers. In reality, not all learners are 'digital natives'.[41] Further, even students from the 'Net Generation' may find it challenging to adapt their technological skill to learning technologies.[42]

Research on student cognition has demonstrated that learners' prior knowledge, or lack of knowledge, may influence the manner in which they learn and the type of obstacles they face.[43] Accordingly, when incorporating e-learning into teaching, it is important to remember that those who do not have ready access to computers and/or the internet may find it challenging to adapt to the online environment. They may develop what is known as 'computer anxiety' or 'internet anxiety' which will make it difficult for them to study online. This may heighten their level of stress and lower their motivation. This anxiety has been identified as a symptom of the rapidly changing nature of technology and the subsequent pressure for social change.[44] Accordingly, law schools and law faculties that wish to attract students from rural and remote areas have to keep in mind that these students may have a degree of anxiety about the online environment. This may be especially true of first-year law students. As mentioned above, first-year students are still completing the transition from school to university and online learning may be foreign to them. If they lack computer and internet skills, their transition may be highly stressful. Consequently, lecturers cannot be complacent about the learners' IT skills.[45] If a lecturer is aware of their audience and knows that it has this characteristic, the problem should be solved in a quick and decisive manner.

For instance, it has been argued that anxiety affects computer and internet learners by impacting their levels of 'self-efficacy'. The notion of self-efficacy emanates from social learning theory. It may be defined as a judgement about 'how well one can execute courses of actions required to deal with prospective situations'.[46] Applying this notion to the problem of e-learning suggests that a

41 Gregor E Kennedy et al, 'First Year Students' Experiences with Technology: Are They Really Digital Natives?' (2008) 24(1) *Australasian Journal of Educational Technology* 108, 108.

42 Ibid 119.

43 Patricia Alexander and Judith Judy, 'The Interaction of Domain Specific and Strategic Knowledge in Academic Performance' (1988) 58 *Review of Educational Research* 375; Paul Pintrich et al, 'Instructional Psychology' (1986) 37 *Annual Review of Psychology* 611.

44 Mark Brosnan, 'The Impact of Computer Anxiety and Self-Efficacy upon Performance' (1998) 14 *Journal of Computer Assisted Learning* 223, 223; Raafat G Saade and Dennis Kira, 'Computer Anxiety in E-Learning: The Effect of Computer Self Efficacy' (2009) 8 *Journal of Information Technology Education* 178.

45 Salmon, above n 25, 12.

46 Albert Bandura, 'Self Efficacy Mechanism in Human Agency' (1982) 37(2) *American Psychologist* 122, 122.

student's anxiety is heightened in situations where they have no actual experience. Accordingly, increased experience of IT lowers computer and internet anxiety, increases levels of self-efficacy and, as a consequence, improves performance and motivation.[47] Where a lecturer discovers that their students are not computer or internet literate, it may be a good idea to increase the students' knowledge by, for example, illustrating how to use the online site and find the information they will need.[48] E-activities in such cases may provide a gentle but engaging introduction to the use of e-learning.[49] In later years, lecturers may continue giving clear guidelines in relation to the online learning environment and the manner it is going to be used, in order to ease any discomfort or anxiety students may have.[50] In short, the more experience students have in this area, the more comfortable and relaxed they will be; the more motivated they will become; and the better their performance will be.

It is also important to remember that students will usually follow the example of their lecturer. If their lecturer is not competent online, the students will not be motivated to use the online facilities, even where available. For this reason, it is crucial for lecturers to acquire new competencies. They have to be aware of the manner in which the online environment can be used.[51] The challenge for lecturers is to 'learn from the experience of others, to encourage and evaluate educational innovation, so that all of [their students] can achieve [their] full potential'.[52]

Another element to be taken into consideration is the fact that, when students start a new subject (especially if they are first-year students), they may be ill at ease with the lecturer. Students may be worried and may fear failure or ridicule, for example.[53] In face-to-face classes, this uneasiness fades as the lecturer and students become familiar with each other. However, in the online environment, it is more difficult to create this familiarity because lecturers and students will have a harder time developing a bond. The learning is taking place in a faceless environment. Accordingly,

47 Brosnan, above n 44, 225.

48 The more online skills the students have the more enjoyable and less stressful the experience will be. Jayne Bozarth, Diane Chapman and Laura LaMonica, 'Preparing for Distance Learning: Designing an Online Student Orientation Course' (2004) 7(1) *Educational Technology and Society* 87, 88.

49 Salmon, above n 25, 14.

50 Kerry O'Regan, 'Emotion and E-Learning' (2003) 7 *Journal of Asynchronous Learning Networks* 78, 89.

51 Patricia Youngblood, Franziska Trede and Sophie Di Corpo, 'Facilitating Online Learning: A Descriptive Study' (2001) 22(2) *Distance Education* 264, 264; John Juriansz, 'The Challenge of Adopting New Integrated Technology Strategies: Integrating E-Learning and Blended Learning into Existing LLB Units' (Paper presented at the ALTA 2007 Conference, University of Western Australia, Perth, Western Australia, 23–26 September 2007) 3.

52 Fred Lockwood and Anne Gooley (eds), *Innovation in Open Distance Learning: Successful Development of Online and Web Based Learning* (Routledge, 2001) 2.

53 Badrul Khan, *Web-Based Instruction* (Educational Technology, 1997) 179.

in online classes, words on screens may play an important role in developing a relationship between students, and between students and their lecturers.[54]

One way to facilitate the development of familiarity is to allow students to bond with each other. To achieve such an outcome, one needs to go 'beyond the content of the preparation of the student and include their culture, social and geographical background and interests'.[55] This may be done by using a discussion board facility if one is available. The lecturer may, for example, ask the students to introduce themselves and to mention their hobbies and interests. Such a method may open the way for the students to meet one another and to build friendships with peers who have similar interests to them. The lecturer can also use the weblog facility, if one exists, to permit the students to express themselves. In this way, lecturers can become more aware of their students' needs and expectations — a step toward the creation of a virtual community.[56] In one prominent example, in February 2003, the Harvard Law School launched a facility that allows anyone with a Harvard email address to create a weblog.[57] Such a weblog promotes freedom of discussion among staff and students. It may also help establish an 'intellectual community'.[58]

Furthermore, helping students to make friends by meeting fellow students in the online environment is beneficial to their learning. The students will no longer be studying in isolation,[59] but will be aware of the existence of fellow students who may be able to help them in their studies if need be. Students learn together, develop their own questions, and search together for solutions and share resources.[60] The communication between students may also help them to become aware that the problems they may face are shared by other students. This may put them at ease and connect them with each other, and in turn with the lecturer. The more comfortable the students are with the online learning environment, the better their learning experience will become.[61] Moreover, a positive experience may draw other

54 Howard Rheingold, *The Virtual Community* (MIT Press, 2000) 3.

55 Barry Willis, *Distance Education: A Practical Guide* (Educational Technology, 1993) 27.

56 Palloff and Pratt, above n 30, 23.

57 Harvard Law School, *Weblogs at Harvard Law School* <http://blogs.law.harvard.edu/>.

58 Stephen Downes, *Weblogs at Harvard Law* (July/August 2003) The Technology Source Archives <http://technologysource.org/article/weblogs_at_harvard_law/>.

59 The feeling of aloneness that students may feel in an online environment may affect the level of their motivation: Joanne McInnerney and Tim Roberts, 'Online Learning: Social Interaction and the Creation of a Sense of Community' (2004) 7(3) *Educational Technology and Society* 73, 73.

60 David McConnell, *E-Learning Groups and Communities* (McGraw-Hill International, 2006) 61.

61 Willis, above n 32, 27.

students online and expose them to the richness and vitality of online studies.[62]

III Some Methods That May Increase Students' Motivation in an Online Environment

The development of social relationships between students, and between students and lecturers (as described in the previous paragraph), may not only lessen students' anxiety; it may also help the lecturer to take advantage of the connections between the students by building activities around it.[63] However, even though the cognitive models are relevant and useful for understanding the manner in which students learn, a reliance on cognition alone is not enough. A 'cognition only' model of student learning cannot explain why certain students who have the requisite prior knowledge still fail to do well. This may be a particular problem in online learning, where students find themselves in a faceless environment that may dishearten them. As Marshall Jones noted, motivation has to do with 'how behaviour gets started, is energized, is sustained, is directed, is stopped.'[64] Accordingly, after taking the necessary steps to meet the needs of the students and lessen their level of anxiety, the motivation of those students should not be automatically assumed.[65] For this reason, just as lecturers prepare their lessons, they also have to plan their motivation strategies.[66] The implementation of techniques that encourage motivation will ultimately affect students' level of engagement and their willingness to persist at a task.[67] John Keller's ARCS model, for example, uses such activities to improve student motivation.

A *Keller ARCS Model and Interaction*

The Keller ARCS model is a problem-solving method designed to motivate, stimulate and sustain students' attention.[68] This model is based on four concepts: attention (A), relevance (R), confidence (C), and satisfaction (S). These four categories represent sets of

62 Rheingold, above n 54, 3.

63 Gilly Salmon, *E-Moderating: The Key to Teaching and Learning Online* (Kogan Page, 2000) 25.

64 Marshall Jones, 'Introduction' in Marshall Jones (ed), *Nebraska Symposium on Motivation* (University of Nebraska Press, 1955) v.

65 Salmon, above n 25, 15.

66 Wlodkowski, above n 10, 15.

67 Paul Pintrich, Ronald Marx and Robert Boyle, 'Beyond Cold Conceptual Change: The Role of Motivational Beliefs and Classroom Contextual Factors in the Process of Conceptual Change' (1993) 63(2) *Review of Educational Research* 167,168.

68 John Keller, 'How to Integrate Learner Motivation Planning into Lesson Planning: The ARCS Model Approach' (Paper presented at VII Semanario, Santiago, Cuba, 23 February 2000); John Keller, 'Development and Use of the ARCS Model of Motivational Design' (1987) 10(3) *Journal of Instructional Development* 2–10.

conditions that are necessary for a person to be fully motivated.[69] Accordingly, when developing an online environment, keeping the ARCS model in mind may help to create techniques to engage and stimulate students. The model may be easily implemented in an online environment through the development of online activities.

Applying this model, lecturers may first need to create strategies to keep their students' attention. In face-to-face classes, a number of techniques may be used by a lecturer to draw the attention of the students to the important points. This task is harder online due to the lack of physical interaction between students and lecturer. A lecturer will not know when their students' attention is elsewhere. As a consequence, other tactics need to be developed.

Using IT may be distracting to students.[70] Accordingly, when designing an online site, lecturers should design activities that attract the attention of their students. For instance, a lecturer may post challenging scenarios on the students' discussion board. Such challenging activities not only attract the attention of students, they can also have a positive impact on learners' motivation levels[71] and stimulate a deeper level of curiosity. Further, the lecturer may create online games to draw students' attention — for example, through the use of StudyMate.[72] Reliance on audio, video and visual format resources may also increase the possibility of attracting students' attention, as well as catering to different learning styles. To keep students' attention, online activities should be varied. In short, lecturers may be required to design activities that stimulate and challenge students.[73]

If the attention of students is drawn to a particular topic, they will be more motivated to study and to use the online facilities available to them. However, even this attention span may be short and boredom may set in, which may negatively impact on motivation.[74] Attention may also be lost if the content has no perceived value to the learner. For this reason, lecturers should not only draw students' attention to

[69] Keller, 'Development and Use of the ARCS Model of Motivational Design', above n 68, 2.

[70] Khan, above n 31, 181.

[71] However, it is important to note that there should be a balance between the challenge set out by the lecturer and the competency of the students. Without this balance, the challenging activity may generate negative emotion in the learner: Thomas Malone, 'Toward a Theory of Intrinsically Motivating Instruction' (1981) 4 *Cognitive Science* 333, 335; Isabelle Hugener et al, 'Teaching Patterns and Learning Quality in Swiss and German Mathematics Lessons' (2009) 19 *Learning and Instruction* 66, 69.

[72] *StudyMate* is software that creates Flash-based activities and games which allow the students to test their knowledge of the material.

[73] Keller, 'How to Integrate Learner Motivation Planning into Lesson Planning', above n 68, 4.

[74] Joseph Barmack, 'Boredom and Other Factors in the Psychology of Mental Efforts: An Exploratory Study' (1937) 218 *Archives of Psychology* 6.

concepts, they should illustrate the relevance of each to the students' studies. Relevance is the second element in the ARCS Model.

Online materials and tasks should nurture the students' interest in the subject.[75] One traditional way of achieving this is by linking the content of a subject to the learners' future job prospects or to academic requirements.[76] The lecturer may use public forums such as the discussion board facility to generate discussion on a current issue. For instance, linking the law to current affairs and law reform may draw students' attention. It may also motivate them in their studies by showing them the relevance of what they are studying and how it applies to the 'outside world'.

In addition to drawing students' attention and highlighting the relevance of their studies, another element to consider in efforts to improve the motivation of students, and the third element in the ARCS Model, is student confidence. Improving confidence to motivate students is accomplished by helping them to establish positive expectations of success. The online environment can help achieve such an outcome in a number of ways.[77] For instance, online classes have been seen as successful in drawing out students who would not usually participate in face-to-face classes.[78] Online teaching, especially when used as a complement to face-to-face classes, can help motivate students who appear to be unmotivated because they are quieter than their peers.[79] In such instances, creating student-centred online communication may build upon issues discussed in class.[80] E-learning will give such students a space in which to express themselves. This may be an advantage to first-year students in blended learning classes, by giving them more than one forum in which to express their ideas.[81] Those students who are quiet in class may feel more able to discuss certain issues on the online discussion board or through chat facilities.

This method will help students to feel part of the group and not to be left out. It may also show them that their opinion is respected and valued and should therefore be shared with other people. When students have such a realisation in an online environment, they will not feel shame or embarrassment. Rather, their confidence will be

75 Mark Stansfield, Evelyn McLellan and Thomas Connolly, 'Enhancing Student Performance in Online Learning and Traditional Face to Face Class Delivery' (2004) 3 *Journal of Information Technology Education* 173, 176.

76 Keller, 'How to Integrate Learner Motivation Planning into Lesson Planning', above n 68, 2.

77 Ibid.

78 Palloff and Pratt, above n 30, 9

79 Ibid.

80 O'Regan, above n 50, 89.

81 Sally Kift and Rachael Field, 'Intentional First Year Curriculum Design as a Means of Facilitating Student Engagement: Some Exemplars' (Paper presented at 12th Pacific Rim First Year in Higher Education Conference, Townsville, Queensland, 29 June – 1 July 2009) 5.

built and they will have pride in their work. This will help them to stay motivated.[82]

Further, the ability to provide automated self-tests with instant feedback, which students can attempt as many times as they like, has been shown to improve students' confidence in their understanding of important facts and concepts.[83]

A study conducted by John Keller, Markus Deimann and Zhu Liu found that the students who opened 'study tip' emails were more motivated to study. These emails increased the students' study time and maintained their confidence. Accordingly, the use of email can build confidence in students. Personal emails sent to students show that the lecturer cares about them individually. General emails also play an important role in helping students to study. The study discovered that study tip emails were helpful to students who needed such assistance because they had certain volitional deficiencies.[84] Such feedback may be the start of a positive interaction between lecturers and students, especially for first-year students, because it may enhance learners' motivation.[85]

The fourth element that has to be considered when applying the ARCS model is satisfaction. As Maslow mentioned, satisfaction is important to motivation because it leads to the development of self-confidence and strength in people.[86] Satisfaction can be achieved if studying is rewarding or satisfying. It may derive from a sense of achievement, praise from higher up, or mere entertainment. The online environment may promote the development of satisfaction in a number of ways. For instance, lecturers can monitor any discussion taking place, provide feedback to students in relation to the issues raised, and praise students who are doing well in order to show them that their efforts are being noted. This may motivate other students to participate rather than 'lurk'. It will also demonstrate to students that their ideas are useful and respected. Lecturers can also grade students' participation online. This may help motivate students to participate online in order to receive a good mark. However, it is important not to patronise students by over-rewarding easy tasks and assessments.[87] Moreover, creating the right kind of exercise, especially at the start of the semester, may enable students to feel

[82] O'Regan, above n 50, 87–8.

[83] Lawrence Chirwa, 'A Case Study on the Impact of Automated Assessment in Engineering Mathematics' (2008) 3(1) *Journal of the Higher Education Academy Engineering Subject Centre* 13.

[84] John Keller, Markus Deimann and Zhu Liu, 'Effects of Integrated Motivational and Volitional Tactics on Study Habits, Attitudes and Performance' (Paper presented at the Annual Meeting of the Association for Educational Communications and Technology, Orlando, Florida, 18-22 October 2005).

[85] Kift and Field, above n 81, 4.

[86] Maslow, above n 23, 21.

[87] Keller, 'Development and Use of the ARCS Model of Motivational Design', above n 68, 7.

some sense of ownership of the concepts they are studying. This may boost their satisfaction levels and thereby their motivation.[88]

When applying the ARCS model to the online environment, most of the methods mentioned above relate to the interaction of students via online public forums. Michael Moore defined three types of interaction: content–learner interaction, learner–learner interaction, and learner–teacher interaction.[89] In an online environment, these types of interaction can be synchronous or asynchronous.[90] Research has also shown that students are usually more motivated to learn when they are collaborating with other students than when they are working independently.[91] Furthermore, collaborative forums can promote effective discussion by motivating learners to build coherent and cohesive explanations in the process of discussing issues with other learners. This is of great importance, because theoretical and empirical research has demonstrated that students' learning is greatly influenced by peer and teacher interaction.[92] For instance, in England, the National Literacy Strategy and parallel National Numeracy Strategy note that direct, interactive teaching is very important because such interaction may contribute to the success, confidence and satisfaction of students.[93] Today, a number of lecturers use an online forum to allow students to meet and discuss ideas in relation to the subject taught. However, the level of interaction of the students may vary depending on their motivation.

In short, all the online activities that may be designed by lecturers play a central role in successfully applying the ARCS model. Such activities may foster and increase the motivation of students through their interaction and collaboration.

B *Highlighting the Goals That May Be Achieved*

Another element that has to be taken into consideration when designing an online task or activity is the goal that the lecturer wishes

88 Diana Laurillard, *Rethinking University Teaching: A Conversational Framework for the Effective Use of Learning Technologies* (Routledge, 2nd ed, 2002) 200.

89 Michael G Moore, 'Three Types of Interaction' (1989) 3(2) *American Journal of Distance Education* 1.

90 Dominic Upton and Carol Cooper, 'Developing an Online Interactive Health Psychology Module' (2006) 43(3) *Innovations in Education and Teaching International* 223, 227. Synchronous communication is a form of direct communication where all parties involved in the discussion are present at the same time. Live chat rooms are an example of synchronous communication. Asynchronous communication, on the other hand, does not require that all parties involved in the communication be present and available at the same time. Emails and discussion boards are examples of asynchronous communication. An assessment of the advantages and disadvantages of these modes of communication is beyond the scope of this paper.

91 O'Donnell, Hmelo-Silver and Erkens, above n 11, 63.

92 Pintrich, Marx and Boyle, above n 67, 172.

93 Steve Kennewell et al, 'Analysing the Use of Interactive Technology to Implement Interactive Teaching' (2008) 24 *Journal of Computer Assisted Learning* 61, 62.

to achieve. Achieving such a goal may increase the satisfaction of students and thereby their motivation. In the online environment, a task or activity may be posted for students to see. However, if it is not clearly defined, students are left to define the task and its goal by themselves. If the students do not perceive the task in the same way as the lecturer, they may miss the point of the task and this may affect their motivation.[94] Accordingly, it is crucial for lecturers to define the goal of each task or activity they set. Identifying clear goals may allow students to achieve the 'greatest learning gain' in a meaningful manner.[95] Moreover, students may be more willing to be involved in an activity if they see a meaningful reason to engage.

Therefore, when preparing a task in an online environment, lecturers can use a number of strategies to highlight the goals of an assessment:[96]

- Explain to students why the task is important and interesting to them. It may be useful to link the task to practices that the students may use in their professional life.
- Define the learning objective of the task. Such objectives will identify the performance standards that a student needs to meet to reach the desired goal.[97]
- Give advice in relation to the time required to complete the activity.
- Provide preliminary exercises that the student can practise, thereby building their confidence and boosting their motivation.

All these elements help students to understand the goal of an online exercise and this may increase their motivation.

In addition, it is important for students to understand the overall classroom structure — why the subject has an online presence, and how such a presence benefits them. For instance, it may be important to mention to students that IT and the online environment are being used more and more by the legal profession. For example, e-courts are becoming more popular. The NSW Land and Environment Court has implemented a new computer system, called 'e-court', that allows parties to initiate proceedings, lodge documents and obtain hearing dates online.[98] Further, Justice Link has had a successful trial in the NSW Supreme Court and this may lead to the introduction of a range of online NSW court and tribunal services.[99]

The more students are aware of the benefits offered by the online environment, and how these may be linked to their future careers,

94 Pintrich, Marx and Boyle, above n 67, 168.
95 Khan, above n 31, 185.
96 Laurillard, above n 88, 201.
97 Khan, above n 31, 185.
98 Land and Environment Court, *eCourt* (1 November 2010) Lawlink <http://www.lawlink.nsw.gov.au/lawlink/lec/ll_lec.nsf/pages/LEC_ecourt>.
99 *NSW JusticeLink* (8 September 2010) Lawlink <http://www.lawlink.nsw.gov.au/lawlink/eservices/ll_eservices.nsf/pages/eservices_index>.

the more they will be motivated.[100] Furthermore, this motivation may affect their personal goals which may move from 'performance goals' to 'mastery goals'. Such an outcome is desirable, since performance goals assume that students are focused on obtaining good results and/or besting others, while mastery goals assume that students are focused on learning, understanding and mastering the task.[101] This approach will not only motivate students, but will also influence the manner in which they study and assess the information given to them.

IV Conclusion

Even though little research has been conducted in relation to motivation and e-learning, motivation is very important since it may impact the way students study in the online environment. The socio-cultural constructivist theory may assume that students are active learners in an online environment; however, this is not necessarily the case. Law students at the beginning of their degree may not be motivated to use the online environment in an appropriate manner because they may be anxious about using new technologies. They may not know what to expect from such an environment and the benefits it has to offer.

For this reason, it is of great importance that lecturers construct their learning environment to target their particular audience: their students. They can also attempt to put their students at ease by explaining how the online environment may be used, by posting welcoming messages for students, and by encouraging students to introduce themselves through the online forum and to meet other students. These may be the first steps toward the interaction of students and may motivate them to study harder.

However, lecturers should not stop there. They have to keep in mind that motivation must be nurtured in students. In this endeavour, applying the Keller ARCS model and encouraging interaction and collaboration between students may be of great value. Furthermore, interaction with students by monitoring their online presence and supplying them with feedback plays a motivating role. To stimulate students, lecturers may also facilitate the students' interaction with the online material by explaining the goals behind designated tasks. All of these approaches may assist lecturers to create strategies that influence learners' level of motivation.

[100] Stansfield, McLellan and Connolly, above n 75, 176.

[101] Carole Ames, 'Classrooms: Goal, Structures and Student Motivation' (1992) 84(3) *Journal of Educational Psychology* 261, 263; Timothy L Seifert, 'Academic Goals and Emotions: A Test of Two Models' (1995) 129(4) *Journal of Psychology* 543, 543. This illustrates the importance of the motivational goal orientation because motives may achieve or impede the achievement of certain outcomes and objectives.