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Faculty Attitudes Toward and Motivation for Virtual Learning Environments (VLE) for Language Studies: A Cross-National Study in Saudi Arabian Universities

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Abstract

Purpose: To explore the attitudes and motivation of EFL faculty members in Saudi Arabia towards Virtual Learning Environments and teaching online courses via Blackboard®. Method: Descriptive in nature, 520 participants from national and international faculty members working in Saudi governmental universities participated in this cross-national study. Relevant theory and research and the findings from this study were used to draw conclusions about what could be done to support improvement in attitudes and motivation and enhance language instruction. Results: Descriptive and referential statistical analyses indicated that faculty members have positive perceptions towards using e-teaching technology with variations influenced by faculty demographics and experience. Results also showed that they are generally highly motivated towards using VLE tools in their teaching. It is concluded that in countries like Saudi Arabia where resources are available and appropriate technology provided for teachers and students' ongoing training is still needed. Conclusions: At the end of this report, conclusions are drawn to ensure for continuing support effective continuing use of virtual learning environments.

Introduction

Research findings from educational psychology and pedagogy show that the acceptance and use of VLE technology depends on the attitudes and experience of both teachers and learners (Chih-Chien, Hsu & Fang, 2005; Fageeh, 2011). Research also indicates that people with more positive attitudes towards VLE environments and online instruction tend to exhibit intentions to use such tools as an integral part of their learning and teaching (Aldosari & Mekheimer, 2013; Liaw, 2007; 2008). Indeed, no matter how advanced or powerful a technology is, its effective implementation depends upon users having positive attitudes towards it, an sufficient level of technical skill for teaching and learning (Wu, Tennyson, & Hsia, 2010), and adequate intrinsic motivation (Davis, Bagozzi, & Warshaw, 1992), and extrinsic motivation (Teo, Lim, & Lai, 1999; Roca & Gagné, 2008).

Because of the significance of affective factors in predicting and improving e-learning and e-teaching (See for example, Liaw et al., 2007), new issues relating to adoption of VLE tools have recently given rise to an array of research efforts (Abdullah, Abidin, Luan, Majid & Atan, 2006; Lin, 2011; Lonn, et al., 2011; Sugar, Crawley, & Fine, 2004). Reflecting these developments this study examined the attitudes towards and motivation for the inclusion of Virtual Learning Environments in tertiary education for faculty members teaching language programs at a major university in Saudi Arabia. The main issue was their opinions about using e-learning technology tools in their teaching and factors that influenced those opinions and decisions to use-those tools. Findings from the research were intended to help increase the usability and accessibility of online courses.

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Literature Review

E-teaching, e-learning and e-education: Conceptualisations

Campbell (2001) defines e-teachers as "the new generation of teachers who work in an internet environment in both regular and virtual classroom situations." She furthers describes e-learning as "learning which takes place as a result of experiences and interaction in an internet environment." While e-education "involves e-teaching and e-learning along with the various administrative and strategic measures needed to support teaching and learning in an internet environment" (Assareh & Bidokht, 2011, p. 793). However, a significant feature of e-learning is its roll-out - that is, making it available to users on a wide scale. A ramification of this issue relates to a question of how one can display learning materials and resources online. The answer involves a number of sub-issues: such as assessing the needs of an e-course administration, resource sharing, and online communication and collaborative e-learning (Conrad, 2009; Liu, 2009). Deciding on the answer to these questions will help one to choose the right system for e-learning roll-out: VLE, CMS, LMS or LCMS. Giroux (2013) provides descriptions of these systems that explain the differences between them:

Virtual Learning Environment (VLE)

A VLE is a software system designed to help tutors or teachers in the management of educational courses for their students. It is used by universities and colleges to help lecturers to create a course website with a minimum of technical skill requirements. It facilitates communication, assessments and document sharing (e.g. textbooks). Users can also share and build together a learning resource helped by some tools such as wiki, blogs, or RSS. Examples of VLEs are Blackboard, Web CT, Moodle, etc.

Content Management System (CMS)

A CMS is a system used to manage the content of a website. It allows the creation and administration of online content by several people. Pages are composed when requested through a user's browser. A CMS handles modification, and removal of information resources which are stored in a database.

Learning Management System (LMS)

An LMS automates the administration of learning programmes within an organization. It allows teachers to deliver, to track and to manage learning, teaching and training.

Learning Content Management System (LCMS)

This software application (or set of applications) is a multi-user environment where developers can prepare, approve, publish, and manage a learning content. It has at the same time the characteristics of an LMS (course administration and learning management) and a CMS (content creation and personalized assembly).

Preconceptions about e-learning and VLEs

E-learning is the use of information and network technology (INT) to design, deliver, select, administer and extend teach (Chen, Luo, Hsieh & Lu, 2011). Nichols (2003) defines e-learning as only being accessible by using technological tools that are web-based, web-distributed, or web-capable. In this sense, e-learning is an integrated system of multiple content delivery media and formats, a manager of learning experience and a process evaluation centre for a networked community of learners whose purpose is to make learning faster at lower costs, and grant access to learning experiences anytime and anywhere. Kohn (2013) further described e-learning as a human exploit that "proceeds from a sound understanding of the human nature of the needs, conditions and processes involved.

Thus, online language learning can contribute to this human dimension by affording an overall social constructivist and communicative approach (Kohn, 2009). E-learning for delivering language programmes can, in the confines of this definition, include content and language for integrated learning (Kohn, 2012) as well as intercultural communication (Kohn & Warth, 2011). There is substantial research on technology and education, but there are still unanswered questions about the incentives for students and teachers to adopt full-fledged e-learning. Research conducted in universities indicates that for many students and teachers, e-learning is still difficult to accept, despite the fact that information and network technology (INT) employed for e-learning purposes has become more user-friendly and easily accessible than before (Fageeh, 2011).

The reasons for this reluctance to accept e-teaching/e-learning technology are associated with the beliefs and attitudes of teachers and learners (Manochehri & Sharif, 2009; Alshumaimeri, 2009; Juhdi, Abd Hamid & bin Siddiq, 2010), cultural values, technology affordance and achievement factors (Ali & Katz, 2010).

Challenges to the Adoption of e-Teaching Technology

The prevalence of information and network technology (INT) has expanded the opportunities for accepting, and adopting virtual learning environments (VLEs). However, research over the past two decades suggests that the level of motivation to utilise ICT for teaching as been found to be an essential factor in the adoption of this technology in tertiary education settings (Goodwin, et al., 1993; Hirschbuhl, 1994; Wolcott, 1997; Campbell, 2001). Research has also indicated that having positive attitudes towards the use of ICT is a strong indicator of whether a teacher might consider e-teaching as an alternative for conventional learning classroom environments (Campbell, 2001; Hirschbuhl, 1994; Rosenberg, 2001).

Teachers' Attitudes towards e-learning Technologies

Previous research on attitudes (*See reviews in* Triandis, 1971; Blumefeld, 1992; Davis, et al., 1989; Ajzen, 1988) has considered the concept of attitudes and their effects on e-learning, indicating that attitude comprises affective, cognitive and behavioural components. Liaw (2004) claims that constructs of user attitudes towards online learning technologies should be divided into three major types of measurements: affective, cognitive and behavioural. Jones and Issroff (2005) emphasise the importance of considering both affective and social components when trying to understand teachers' attitudes. Attitudes towards e-learning technology in VLEs are affected by the teacher's beliefs about the consequences of continued use and the evaluation of these consequences (Ajzen, 1988). Such beliefs regarding usefulness and the outcomes of use provide strong internal incentives for the adoption of e-learning technology (Davis, et al., 1989). Teachers' positive attitudes towards VLEs determine how effective the implementation of e-learning technology can be: For example. if teachers entertain more positive attitudes towards VLEs as alternative media for their teaching, then they would have stronger intention to integrate e-learning technology into their teaching (Liaw, et al., 2007).

Teachers with positive attitudes towards VLE technology are likely to engage more in e-teaching (Abdullah, et al., 2006; Liaw, et al., 2007). However their willingness to accept or reject VLE is also influenced by attitudes and other pressures (positive or negative), imposed by college teacher evaluation procedures, educational reform endeavours, total quality management criteria and bandwagon effects, and beliefs within their institution about the usefulness and ease of use of VLEs (Mekheimer & Aldosari, 2013. Hence, *Teachers' Motivation in VLEs*

Law, Lee & Yu (2010) defined motivation as the extent to which persistent effort is directed towards learning and/or teaching. Within the context of VLE, Salmon's (2000) five-stage e-moderating model for online teaching and learning shows motivation as the springboard for any online learning/teaching system. Some researchers suggest that achieving access motivation for a VLE requires meeting students' needs by identifying their learning goals and recognising their anxiety levels (Nehme, 2010; Schrum, Shelley, & Miller, 2008). In addition, both extrinsic and intrinsic motivation of teachers to use technology are influenced by perceived usefulness of the technology, perceived autonomy, perceived competence and perceived relatedness (Sørebø, Halvari, Gulli & Kristiansen, 2009).

Cognitive, emotive and social factors: an overarching perspective

Teachers' motivation for using technology is influenced by several factors including their access to and opportunity to use technology, opportunity to learn about technology through training in the use of VLE technology in their teaching, sharing with others common characteristics such as self-confidence and positive attitudes towards technology, their willingness to try new ideas, and finally capacity to inspire students to engage in VLE and become life-long learners (Schrum, et al., 2008). Motivation and attitude towards using VLE technology on the part of teachers is correlated positively with setting learning/teaching goals in an e-learning environment (Conole & Oliver, 2007). Therefore, as engaged learners are behaviourally, intellectually and emotionally involved in their learning tasks (Wang & Kang, 2006), so are teachers. Adapting the *Cybergogy for Engaged Learning* proposed by Wang and Kang (2006) to the case of teachers, one can assume that there are three overlapping domains interacting to initiate, facilitate and maintain active e-teaching: namely, the cognitive, emotive and social factors.

The relationship of these domains is shown in Figure 1.

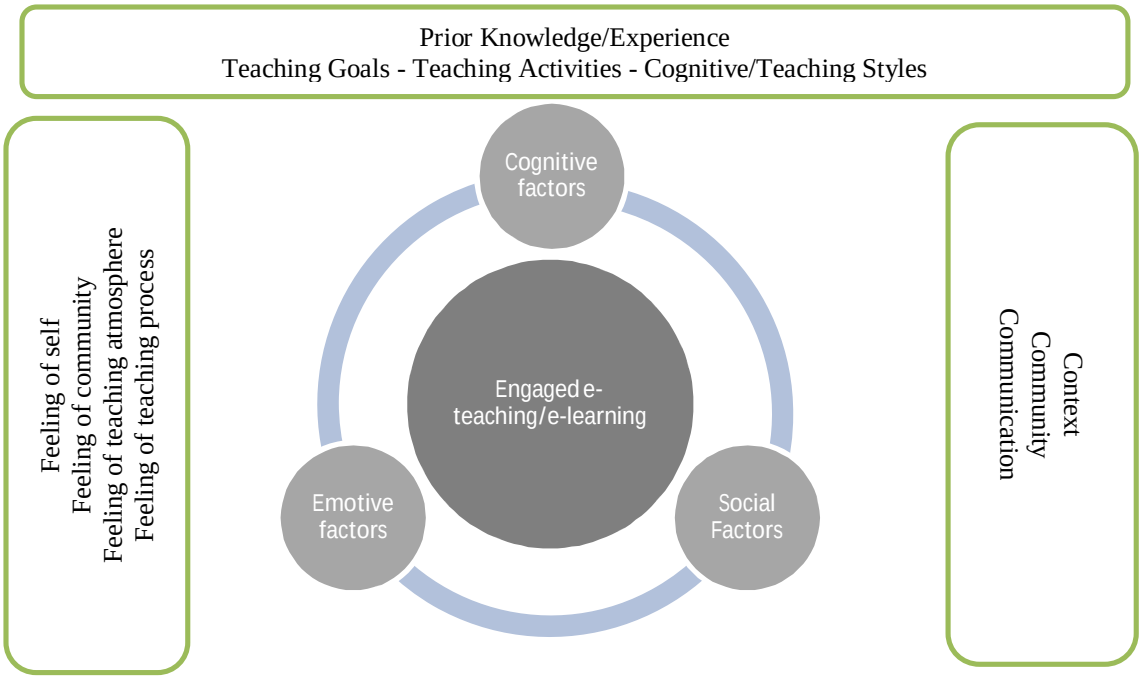

Figure 1: Online e-teaching/e-learning environment

This model assumes that teachers, in virtual learning environments (VLEs) can perform better than they do in real-time classrooms when they utilise the facilitative and technologically-enabling learner-centred, autonomous and collaborative strategies that are available as a result of active involvement with their students in the virtual learning process. Affective teaching/learning is as important as cognitive teaching/learning, and both are interwoven in the social context of the teaching/learning process. This model suggests that engagement in the teaching/learning process is correlated with motivation and attitudes towards e-learning technology, which can be prompted in different ways for both teachers and learners in different cultural settings.

Other studies on motivation have confirmed factors affecting adoption of e-teaching and suggested some additional considerations. These include (1) user satisfaction (e.g., Hsu, Yen, Chiu, & Chang, 2006; Liao, Chen, & Yen, 2007), (2) learners' and teachers' motivation and attitudes (e.g., Bhattacherjee & Sanford, 2006; McClen-sky, 2009; Ushida, 2005), (3) perceived usefulness (e.g., Roca, Chiu, & Martinez, 2006; Liao, et al., 2007; Gefen, 2003; Hsu and Lu, 2004; Ong, et al., 2004), (4) perceived ease of use and enjoyment (e.g., Roca, et al., 2006; Venkatesh, 2000), and (5) quality (e.g., Chiu, et al., 2005; Roca et al., 2006).

Perceptions of the usefulness and ease of use of e-learning technology influences students' attitudes and use of CMSs (Mekheimer & Aldosari, 2013; Fageeh, 2011) and teachers' are influenced by extrinsic motivation and confirmation of pre-acceptance expectations (Sørebø, et al., 2009). According to Sørebø, et al. (2009), perceived usefulness efficiently stimulates teachers' motivation for CMS use, while intrinsic motivation is influenced by the teachers' perceived autonomy, perceived competence and perceived relatedness. Other researchers found that perceived usefulness as a function of extrinsic motivation of teachers can create positive attitudes regarding the use of CMSs (Davis, et al., 1989; Fageeh, 2011).

In summary, research has indicated that both e-teaching and e-learning are guided by the attitudes and motivation of the key players in the learning process, the teachers and the learners (Ajzen, 2002; Leong, 2003). In addition, there has been a qualitative shift in research paradigms with regard to technology implementation of VLEs, suggesting that the focus has moved from technology-related conditions to issues relating to attitudes and motivation. In view of this, it is important to understand the attitudes and level of motivation of language instructors for VLT and the use of Blackboard as a medium for its delivery, and the problems they see in use of that technology if it is to be effectively used in their programs.

To investigate the attitude and degree of motivation for using VLE in Saudi Arabia surveys and consultations were carried out in a number of Saudi Arabian Universities to assess:

1. their level of self-confidence and enjoyment in using VLE
2. their opinions about its usefulness and
3. Satisfaction with its use in language programs.

Variations in these attitudes and opinions were considered for male and female instructors, for those with different levels of teaching experience and for Saudi Arabian and non-Saudi Arabian staff.

Methodology

This study made use of two types of surveys: a quantitative data survey consisting of a 24-item Likert scale questionnaire that was distributed to all participants and a qualitative data survey administered online in synchronous interviews with a 10% random sample of 52 English language teachers of both genders via the *Elluminate Live!* Feature of Blackboard. The 24 item questionnaire was presented in four sections dealing with different dimensions of attitude towards using virtual learning technology, Perceived Self-effectiveness, Enjoyment, Usefulness and System Satisfaction.

Each item was statements indicating a positive attitude towards the dimension in which it was located and respondents were asked to respond on a five point scale ranging from strongly agree with statements presented to strongly disagree. Mean scores for each item and an overall mean for each dimension were calculated to provide ratings for the four attitude dimensions as well as a total attitude score. The Kruskal Wallis and Mann-Whitney U tests were used to analyse the data in the study.

Sampling

Contact information was obtained with the assistance of department heads at Saudi Arabian public universities in different regions of the country for English language instructors with at least some experience in teaching courses using e-learning or other virtual learning technology. A sample of 520 were contacted and agreed to participate in the study. This number included 296 male and 242 females, 215 were Saudi Arabian instructors and 305 were international staff from other countries in the region and elsewhere.

Findings

Instructors' attitudes

A summary of the responses to the attitude survey is provided in Table 1. This shows overall mean scores for each of the four attitude sections. (*See Appendix C, Table 1 for more detail on responses to each individual item*):

Table 1: Means & Standard Deviations of Instructors' Attitudes towards e-Teaching Technology

Attitude Dimensions	Mean Score	Standard Deviation
Perceived Self-effectiveness	20.71	6.02
Enjoyment	21.33	4.94
Usefulness	22.50	6.60
System Satisfaction	24.18	7.68
Total Mean Score	88.71	14.13

Perceived Self-effectiveness

The mean responses on this dimension indicate a reasonably high level of perceived self-effectiveness (M = 20.91, SD = 6.02), and an overall attitude score of 88, 71. Prior research has indicated that positive attitudes towards technology implementation are correlated with higher levels of effectiveness in teachers (e.g., Wu, Tennyson & Hsia, 2010). In this case the results were similar for effectiveness and overall attitude though the higher score for system satisfaction could reflect some participant's initial perception of limited personal skills combined with more positive general views about the usefulness and general effectiveness of VLEs.

Enjoyment

The mean responses of respondents regarding enjoyment were very similar indicating that most participants agree that the use of e-learning technology results in an enjoyable teaching experience (M = 21.33, SD = 4.94). Overall, enjoyment and perceived self-effectiveness were associated with overall positive attitudes towards e-teaching.

Usefulness

The mean responses of the participants on the third dimension of usefulness indicate positive views about the usefulness of using e-learning environments for teaching (M = 22.50, SD = 6.60), This provides support for the use of this form of technology and should help lead to continuing and increasing use of VLE. This is consistent with research findings that value the importance of perceptions effectiveness and usefulness in leading to increased use of e-learning technology for pedagogical uses (Abdullah, et al., 2006; Davis, Bagozzi, & Warshaw, 1992; Lin, 2011; Lonn, et al., 2011; Roca & Gagné, 2008; Sugar, Crawley, & Fine, 2004; Teo, Lim, & Lai, 1999).

System Satisfaction

The results for this domain indicated that the participants were generally satisfied with the eLearning systems with which they were involved. The higher scores for satisfaction with the system than for others suggest that for those who may be having some difficulties they still have confidence in the systems themselves. Although the differences in scores for the domains were not large the results indicate a relatively high degree of confidence in the system and its potential for further development (M = 88.71, SD = 14.13). This further confirms an overall positive attitude and support for further implementation consistent with other research that has found positive attitudes towards e-teaching technology associated with perceived system satisfaction. (e.g., Hsu, Yen, Chiu, & Chang, 2006; Liao, Chen, & Yen, 2007).

Although the overall responses to the four dimensions were similar the degree of support did vary. The participants had the most positive attitudes towards perceived system satisfaction (M = 24.18, SD = 0.78), then usefulness (M = 22.50), enjoyment (M = 21.33), then perceived self-effectiveness (M = 20.71). The differences were not large, but the trend in responses suggests that the most important factors supporting use of eLearning technology are perceptions about its effectiveness and value for learners rather than personal satisfaction and enjoyment. Within these generally positive responses there were differences between different groups of participants and to investigate this consideration was given to four variables, the level of academic qualifications, years of experience, gender, and age.

Differences in Attitude for Qualification Levels

Survey responses indicated that within the sample of instructors 355 were qualified at the level of a doctorate, 117 had a master degree and 48 had bachelor degrees. The mean responses to the attitude survey for the respondents broken down by these qualifications levels are shown in Table 2ogether with results of the Kruskal Wallis test to see if differences between the respondents for qualification level were significant for each of the dimensions and for the total attitude score.

Table 2 Mean Responses to Dimensions of the Attitude Survey for Different Qualification Levels

Dimension	Qualification	N	Mean Score	Mean Rank	Chi^2	*df*	Sig.
Perceived Self Effectiveness	PhD	355	22.26	232.1	10.94	4	0.029
	Master	117	23.22	212.7			
	Bachelor	48	19.78	348.8			
Enjoyment	PhD	355	23.08	195.8	8.21	4	0.077
	Master	117	21.48	271.78			
	Bachelor	48	19.52	352.9			
Usefulness	PhD	355	23.94	204.2	5.75	4	0.126
	Master	117	22.28	261.0			
	Bachelor	48	22.52	242.4			
System Satisfaction	PhD	355	20.26	286.3	13.06	4	0.021
	Master	117	20.76	305.7			
	Bachelor	48	23.52	187.0			
Total	PhD	355	84.48	222.3	6.06	4	0.195
	Master	117	83.52	245.3			
	Bachelor	48	86.64	348.2			

The Kruskal Wallis test indicated that there was not a significant difference for overall faculty attitudes attributable to their qualifications; however there were some differences for particular domains. For system satisfaction the highest level of satisfaction with the system was for those with a bachelor degree. However, curiously that group scored lowest for perceived self-effectiveness and enjoyment.

The explanation for this is thought to be a tendency for this group to lack confidence in their own ability which would affect both their perceived self-effectiveness and enjoyment while believing that the system itself was very good. The differences for enjoyment and perceived self-effectiveness were not significant but although the overall differences for usefulness were not significant those with Master degrees scored significantly higher than the others.

Difference in Attitude for Years of Experience

The scores for each of the domains for participants with different years of experience are shown in Table 3. A Kruskal Wallis test was conducted to determine if there were any significant differences among faculty attitudes that may be attributable to teaching experience.

Table 3 Mean Responses to Dimensions of the Attitude Survey for Different Years of Experience

Dimension	Experience	N	Mean Score	Mean Rank	Chi^2	*df*	Sig
Perceived Self	1-5 years	151	20.22	280.1	2.76	3	0.433
effectiveness	6-10 years	145	22.40	239.7			
	11-15 years	67	23.53	178.4			
	Over 15 years	157	22.39	239.1			
Enjoyment	1.5 years	151	21.43	289.4	9.21	3	0.035
	6-10 years	145	21.45	286.0			
	11-15 years	67	23.46	187.8			
	Over 15 Years	157	21.96	302.9			
Usefulness	1-5 years	151	22.27	259.6	0.04	3	0.996
	6-10 years	145	22.24	256.4			
	11-15 years	67	22.41	265.6			
	Over 15 years	157	22.29	262.8			
System Satisfaction	1-5 years	151	22.25	252.5	2.76	3	0.431
	6-10 years	145	22,68	262.3			
	11-15 years	67	23.90	203.9			
	Over 15 years	157	22.51	268.0			
Total Score	1-5 years	151	86.61	274.8	7.68	3	0.039
	6-10 years	145	88.73	262.2			
	11-15 years	67	93.30	206.2			
	Over 15 years	157	89.15	223.9			

Table 3 indicates that there are some statistically significant differences ($\alpha = 05$) among respondents with 11 to 15 years' experience. This group was more positive than the others for perceived self-effectiveness and for enjoyment though not for the other categories. The difference for those two categories was sufficient to indicate a significant difference for their total attitude score.

Difference in Attitude for Male and Female Participants

Table 4 shows the attitude scores for male and female participants on the four attitude dimensions. For considering the statistical significance of differences found, a Mann-Whitney test was conducted on these scores.

Table 4 Mean Responses to Dimensions of the Attitude Survey for Male and Female Participants

Dimension	Gender	N	Mean Score	Mean Rank	Mann-Whitney U	Sig.
Perceived Self effectiveness	Male	285	22.42	242.8	412	0.032
	Female	235	19.83	321.4		
Enjoyment	Male	285	22.53	239.6	627	0.049
	Female	235	21.19	298.2		
Usefulness	Male	285	22.26	257.3	596	0.442
	Female	235	21.83	287.8		
System Satisfaction	Male	285	22.19	262.9	671	0.978
	Female	235	22.16	264.4		
Total Score	Male	285	89.10	253.9	532	0.166
	Female	235	86.01	278.7		

This table shows no statistically significant differences between males and females in their overall attitudes towards e-teaching technologies. However, a significant difference was between them with respect to the first two dimensions of the survey, perceived self-effectiveness and enjoyment. A possible reason for this difference is that male faculty members were more acquainted with these technologies and had greater opportunities to use them in some situations where the male campuses had greater historical access to new technology.

Difference in Attitude for Different Nationality

The attitude scores for Saudi Arabian and non-Saudi participants are shown in Table 5. Another Mann-Whitney test was conducted to determine whether any differences found were statistically significant.

Table 5: Mean Responses to Dimensions of the Attitude Survey for Saudi Arabian and Non Saudi Arabian Participants

Dimension	Nationality	N	Mean Score	Mean Rank	Mann-Whitney U	*P*
Perceived Self effectiveness	Saudi	223	21.22	294.2	417	0,037
	Non-Saudi	297	23.86	168.8		
Enjoyment	Saudi	223	21.46	288.2	492	0.048
	Non-Saudi	297	23.47	187.1		
Usefulness	Saudi	223	22.52	246.7	747	0.872
	Non-Saudi	297	22.16	267.8		
System Satisfaction	Saudi	223	21.53	278.2	543	0,735
	Non-Saudi	297	22.44	242.3		
Total Score	Saudi	223	86.73	177.9	454	0.042
	Non-Saudi	297	91.93	291.3		

This table demonstrates that there are statistically significant differences between Saudis and non-Saudis in the total attitude score with the statistically higher score for the non-Saudis. This difference was almost entirely due to differences in perceived self-effectiveness and enjoyment and there were only slight differences for the other two dimensions. The similar attitudes of the Saudis and non-Saudis on the dimensions of usefulness and system satisfaction suggests that both groups believe in the importance of CMS technologies for saving effort and time and making learning immediately available to their students. This observation is commensurate with the faculty's qualitative appraisals of the e-learning system in the online interviews.

Differences in Attitude for Different Age Groups

The attitude scores for respondents in different age groups are shown in Table 6. Differences found were assessed for significance by Kruskal Wallis tests.

Table 6: Mean Responses to Dimensions of the Attitude Survey for Different Age Groups

Dimension	Age Group	N	Mean Score	Mean Rank	Chi^2	*df*	Sig.
Perceived Self effectiveness	Under 30	202	22.55	225.3	6.21	4	0.016
	30-49	242	21.26	289.6			
	50 and Over	76	19,21	336.5			
Enjoyment	Under 30	202	22.42	241.3	7.35	4	0.028
	30-49	242	22.63	246.8			
	Over 50	76	20.38	302.3			
Usefulness	Under 30	292	22.52	221.4	5.82	4	0.921
	31-50	242	21.68	278.3			
	Over 50	76	22.13	216.8			
System Satisfaction	Under 30	292	22.39	239,4	6.44	4	0.463
	30-49	242	22.49	223.1			
	51 and Over	76	21.38	288.7			
Total Score	Under 30	292	89.88	221.3	11.76	4	0.048
	30-49	242	88.06	235.4			
	50 and Over	76	83.10	312.5			

This table indicates similar attitudes for the two younger age groups with scores on the four dimensions very similar. The 50 and over group had lower scores for self-effectiveness and enjoyment. However the older group had similar attitudes to usefulness and system effectiveness suggesting that their lower scores may have been due to less confidence of some members of this group in their own IT skills and perception of their ability to utilize those techniques in their own teaching. This interpretation is supported by comments received in the online interviews discussed below.

Results with regard to instructors' motivation

A total of 52instructors, of both genders (10% of the total sample) participated in a structured online survey to examine their motivation towards e-teaching tools. AN n Elluminate Live! Interview conducted via Blackboard examined four indicators of intrinsic motivation: self-worth and satisfaction, competence, interest and determination (Cameron & Pierce, 1994). To investigate their level of motivation, the participants were asked questions that probed the effects of using Blackboard on the recognition of accomplishment, available incentives and benefits, present and future career advancement and promotion, evaluation of organisation and administration and the facilities and working conditions that are available to actively involve teachers in e-learning activities. These indicators of extrinsic motivation have been identified in prior research (Blumefeld, 1992; Dilworth, 1991; Sedebery& Clark, 1990). Thirty-nine of the interviewees (75%) indicated that they have a sense of self-worth and self-satisfaction using Blackboard for course delivery and other online instructional activities, whereas 94% stated that they were competent enough to use the system efficiently and could teach online successfully.

The same percentage of interviewees (94%) expressed strong interest in course delivery via Blackboard and online teaching in virtual classes. All interviewees expressed a sense of self-determination to pursue online teaching via Blackboard and to pursue on-going training on the system, as well as to deliver their tests and assignments online using Blackboard facilities. These findings are consistent with a number of research studies in this area (Bhattacherjee & Sanford, 2006; Cameron & Pierce, 1994; Chiu, et al., 2005; McClensky, 2009; Roca et al., 2006; Ushida, 2005). According to a female respondent (12 years teaching experience), "*Though the system of Blackboard is recently installed, I felt determined to get the necessary training and practice online teaching.*". A male informant (10 years of experience) wrote, "*I believe e-learning is a great change in Saudi universities. I have worked in three governmental higher education institutions in Saudi Arabia; all have e-learning facilities. I feel motivated because I can do a lot of things with video and audio presentations in virtual classes*". Determination to use e-teaching systems was earlier identified as an important aspect of motivation to use such systems (Cameron & Pierce, 1994).

Forty-four(85%) of the interviewed participants indicated that they had started using Blackboard tools in the online delivery of their courses, motivated by financial and credit awards given by a Deanship of e-Learning.

With the installation of the system, the Deanship of e-Learning allocated financial rewards and credit certificates to effective users of Blackboard.

Technicians in the Deanship of e-Learning developed criteria to evaluate teachers' use of Blackboard, e.g., they created a console to track teachers' and their students' log-ins and activities on Blackboard. Prior research supports this strategy as well (*See* Lin, 2011; Lonn, et al., 2011; Roca & Gagné, 2008; Sugar, et al., 2004; Sørebø, et al., 2009). Additional interview data indicated that the instructors normally used VLE tools daily, a practice made possible by factors such as the provision of laptops to all faculties for use at home, desktop computers available in their offices and various incentives, including a 20 to 250% allowance added to their salaries. In addition, 44 respondents (87.88%) indicated that they were expected to abide by the rules of the university administration in using the VLE tools integrated into their teaching and hoped to motivate their students to learn English through the use of hat technology. These responses were compatible with prior research findings that value the importance of extrinsic motivation for e-teaching (Teo, Lim, & Lai, 1999; Roca & Gagné, 2008).

However, some older faculty appeared to favour their established teaching methods; according to one, "*Traditional teaching is much better ... I think we cannot replace the traditional class with the online features of Blackboard… Our students are in dire need of direct contact with native speakers to pick up the language*." Another commented, "*I cannot degrade eLearning. However, I think for the first four levels of study in our college, we need to be in face-to-face communication with our students*".

The opinions of older participants varied. While some had reservations about potential overuse of eLearning technology others were strongly supportive. Several respondents said they were keen to adapt their teaching and incorporate the new technology but had some difficulty in mastering the use of it in their teaching. They said that they felt the need for further training and experience to use it as well as they should. While recognizing benefits they referred to a need for additional training in the use of the new technologies and their integration into program and course delivery.

A concern expressed by respondents in all age groups and both genders was that they had found reluctance by some students who had reservations about the replacement of traditional methods of instruction with online presentations and a different style of interactions with their teachers. This combined in some cases with unfamiliarity with some of the technology indicated a need for thorough orientation of students to a different instructional approach. A few also commented on difficulties for some students less familiar than others with the technology or with limited access on a personal basis to the equipment needed for their own off campus work. Despite the positive comments received from a majority of interviewees all of those interviewed indicated that they were frustrated by the low levels of performance exhibited by students in language proficiency, and in some cases by their computer literacy and competence in using the LMS. One said, "*I feel depressed by my students not replying to my emails or doing their assignments or even reading the lectures over Blackboard. Perhaps the system of Blackboard is too complicated to use*."

The level of technical support seemed to vary for different campuses and institutions. While a majority were very well equipped and students had available the equipment and resources they needed some respondents were concerned about what was available in different locations. This seemed particularly true of some campuses that had recently been merged into universities or were in locations distant from the institutions main campus.
Notwithstanding these comments, it appears that most of the teachers interviewed were enthusiastic and motivated towards the use of VLE tools in their teaching of English. They also saw the computers made available as motivation for students in the learning process and as tools with pedagogical potential through which lessons can be delivered, explained or illustrated in a more interesting and entertaining way.

Conclusions and Implications for practice

Prior research has shown that both external factors, including social environment and learning management systems, and internal factors, including the individual characteristics of teachers and students, are crucial for the efficient adoption, implementation and diffusion of VL Etechnology. Thus, a higher level of individual computer efficacy has been found to be positively associated with a higher level of learning performance, which increases the use of VLE technology (Wu, Tennyson, & Hsia, 2010), an observation that has also been suported by the findings of this study. The findings are in agreement with prior research findings on intrinsic (Davis, Bagozzi, & Warshaw, 1992) and extrinsic motivation (Teo, Lim, & Lai, 1999; Roca &Gagné, 2008), which are believed to be important factors for encouraging learners and instructors to use VLE systems.

The results of this study also indicate that perceived self-effectiveness, enjoyment, perceived usefulness and system satisfaction, have positive effects on the intention to use an LMS efficiently. They have direct positive effects on the intention and motivation to use e-learning technologies – findings commensurate with those of prior research (Lee, 2006; Roca and Gagné, 2008).

The results of this study confirm that instructors are willing to use VLEs to aid their teaching activities. The results also provide evidence that many instructors are highly motivated to apply VLE technology in delivering their coursework online, believing that itcan be an effective teaching tool. The findings indicate that creating technology awareness, motivation and changing faculty and learners' behaviours and attitudes is required for the success of future VLE adoption, implementation and diffusion. Because learners and teachers are used to traditional teaching approaches (Miller et al., 2004), especially in developing countries where ICT is still in its infancy of adoption, some Saudi teachers' motivation and attitudes were observed to be negatively affected by students' reluctance to respond to VLE activities on Blackboard. These findings related to system design and implementation strategies are consistent with research findings reported by Lennon and Maurer (2003), who indicated that system design should be easy to use or else it will create confusion among users. On-going training for users of LMSs seems to be in high demand. Therefore, it seems important to provide computer and Internet training for users to become familiar with VLE technology and enhance users' skills and attitude toward technology.

This notion is consistent with the results reported by Lee (2008), who observed that the provision of computer support and training to learners by universities strongly influence learners' perceived ease of use and usefulness of learning systems. This appears to be highly desirable for both students and teaching staff. Guidance for teaching staff in the integration of new processes into their programs appears to be necessary.

Finally, Saudi universities should adopt the following strategies to enhance VLE adoption, implementation and diffusion. Its use and support should be supported by the following: (a) Up-to-date e-learning training workshops to increase technology awareness and provide training to both students and faculty; (b) expand e-learning services while promoting the usefulness and convenience of such services by providing internet access in classrooms and other infrastructures that promote e-learning; (c) establish and redesign user-friendly websites of e-learning systems and promote the ease of use of electronic learning services for both faculty and students alike; and (d) increase users' motivation towards e-learning use and improve their positive attitudes towards overall self-efficacy, enjoyment, usefulness and satisfaction with the system.

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Appendices

Appendix A

Instructors' Attitudes towards Online Teaching Survey

Dear colleague,

Please select the responses that match your attitudes towards online instruction.

Nationality: .....

Age:

Teaching experience using computerised and/or online instructional media:

Less than 5 years ☐

5 to 10 years ☐

More than 15 years ☐

No.	Statement	SA	A	U	D	SD
	Perceived self-efficacy					
1	I feel confident making online instruction.					
2	I can teach actively in the e-learning environment of Blackboard.					
3	I feel confident using e-learning environments.					
4	I intend to use e-learning to assist my teaching.					
5	I intend to use online instruction to assist my teaching.					
6	I intend to use the Internet to assist my teaching.					
7	I have more opportunities to demonstrate my own teaching styles in the e-learning environment more ably.					
	Perceived enjoyment					
8	I enjoy using computers as a teaching assisted tool.					
9	I enjoy using e-learning environment for teaching purpose.					
10	I enjoy using online instruction for teaching.					
11	I like learning videos in online instruction.					
12	I like colourful pictures in online instruction.					
13	I like instant messaging, emailing, and discussion boards, and the virtual classroom of Blackboard, using Elluminate! Live Sessions.					

14	I like the animated online instruction.
	Perceived usefulness
15	I believe using e-learning environments is helpful for learning.
16	I believe using e-learning environments is helpful for teaching.
17	I believe using online instruction is useful for teaching.
18	The e-learning environment improves my thinking skills.
19	The e-learning environment provides various aspects to solve problems.
	Perceived system satisfaction
20	I am satisfied with using e-learning environments.
21	I am satisfied with using MS-Word, MS-PowerPoint files as multimedia instruction.
22	I am satisfied with using online instruction.
23	I can discuss actively with my students in the e-learning environment.
24	I can post and exchange information actively in the e-learning environment.

Appendix B

Motivation Interview Script

1. Do you feel self-satisfied when using Blackboard technology in your teaching? Do you feel you are doing something significant to enhance teaching and learning in your classes?
2. Are competent enough to use Blackboard in your teaching? Have you received adequate skill training to better use this system?
3. Do you feel interested in using e-learning assistive tools? Do you feel fun using this system? Do you enjoy it? Are you associated with some research or applications that rouse your interests in Blackboard?
4. Do you have self-determination to learn about and apply Blackboard facilities to deliver your coursework?
5. Have you ever been recognised or rewarded for your work with Blackboard?
6. Are there any available incentives and benefits using Blackboard in your teaching?
7. Do your heads assign items in their evaluation reports on using Blackboard e-learning tools?

Do the working conditions and facilities in your campus enable you to be actively involved in e-learning and e-testing?