AN ASSESSMENT OF E-LEARNING READINESS AT OPEN UNIVERSITY MALAYSIA

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Abstract. E-learning readiness is an important part of distance education as it is conceivably related to the success of e-learning initiatives. Policy makers and regulatory bodies have to be cognizant of the degree of e-readiness of a populace in order to design and implement efficient e-learning programmes. This paper reports on a study that was carried out to determine the e-readiness of a group of Open University Malaysia receivers (learners) and enablers (tutors) to provide significant information to the respective teaching-learning community. Data were gathered with the use of the e-learning Readiness Research Tool from a sample of 93 receivers and 35 enablers. The findings related to learner readiness are discussed in this paper.

Keywords: e-readiness, e-learning, assessment, open and distance learning

INTRODUCTION

In distance education, learners' utilization of ICT resources is essential, as is the involvement of providing or regulatory institutions, in optimizing the potential of e-learning within a knowledge–based economy. Significant to learners' involvement in e-learning is the notion of *e-readiness*, that is, their ability to make use of e-learning resources and multimedia technologies to improve the quality of learning. This paper reports on a preliminary study on e-readiness among receivers (learners) and enablers (tutors) at the Open University Malaysia (OUM) with a view to provide pertinent information to the respective teaching-learning community. As OUM attempts to advance the e-learning capacity among its students, it is imperative that respective policy makers are cognizant of the level of e-readiness among its learners and enablers. Further, learners' (and enablers') capacity to construct knowledge through remote means is largely dependent on the efficacy of enabling structures within a system, which in turn sanction readiness to utilize an e-learning system.

As far as e-readiness is concerned, Malaysia appears to hold an admirable position internationally. In a survey on the e-readiness of 195 countries, Malaysia was ranked 32 for the year 2003 and 33 for the year 2003 (*Economist Intelligence Unit* in cooperation with *IBM Corporation,* 2003). Among various countries in the Asia-Pacific rim, Malaysia was ranked 8 in 2002 and in 2003 in the same survey. In another report that investigated e-networks in 82 countries, Malaysia was ranked 29 for readiness in terms of the environment for and usage of e-networks, and a commendable 7 for government or regulatory readiness (Dutta & Jain, 2002). These results reflect the creditable government-led e-initiatives in Malaysia that promote the use of e-resources as tools of learning and knowledge development.

However optimistic the above survey results may be for Malaysians, the OUM experience with online resources, online tutoring and online discussions suggests that the nature of learner and tutor involvement needs investigation. OUM is a relatively new educational institution: it is almost 3 years old and has a student population of 19,000. The university-wide teaching-learning system is premised on blended pedagogy whereby print-based materials provide ready input alongside face-to-face tutorials and online discussions. Asynchronous discussions take place through an online chat room and a bulletin board, while learners and tutors are exposed to online teaching-learning methodology through structured training sessions. For an institution that relies a great deal on e-learning, readiness is a critical factor in the success of ICT-based academic programmes. Further, OUM provides a plethora of online resources in the form of a digital collection, where learners may access digital books, encyclopedias, dictionaries, handbooks and journals. The objective of the study reported in this paper was to profile the e-readiness of a group of OUM receivers and enablers, focusing on their ability to utilize e-learning tools for knowledge building and collaborative exercise.

CONCEPTUAL FRAMEWORK

E-readiness assessment allows one to design comprehensive e-learning strategies and effectively implement ICT goals. In this paper, "e-readiness" is defined as the capacity to pursue opportunities facilitated by the use of e-resources such as the internet (Choucri, et al., 2003). An e-readiness assessment therefore calibrates the degree of ability and the capacity to pursue knowledge in a specific context. Because different groups of people, or different nations and populations have different ways of responding to knowledge-oriented initiatives, e-readiness studies have to take into account the particular influences that are brought to bear upon each situation, institution or learning programme. For this reason, this paper focuses on the capacity of OUM receivers and enablers to engage in e-learning pathways designed and implemented for the purpose of knowledge construction within e-learning educational programmes.

One of the more compelling arguments for the importance of e-readiness comes from research that cites self-directed learning as a key component in the design of e-learning programmes. In discussing the importance of a learner-centred instructional paradigm, Piskurich (2003) perceives that as e-learning grows and evolves, online learning allows individuals to manage their own learning. Some of the skills for becoming self-directed learners are the ability to work alone, persistence in learning, reading ability, competence in using the computer, word-processing skills and the ability to develop a plan for completing

work (Piskurich, 2003). Needless to say, many open and distance learning programmes rely on these skills as necessary ingredients for the success of e-learning programmes, and assessing the e-readiness of learners is a necessary step in the implementation of such programmes.

Researchers also note that multiple ways of representing and acquiring knowledge (Gardner, 1991) pose a challenge to teaching and learning in an information age. Most e-learning programmes reflect a reconstruction of educational agenda from a closed environment to one where there is an open flow of information (Ames, et al., 1995) based on an integrated, process-oriented instructional approach. E-learning environments are designed to offer opportunities for sharing information, to cater to students with a variety of learning styles and to allow for choice in information representation. The use of software and internet applications, databases and multimedia in e-learning have impacted society, schooling and curricular goals (Norton & Wiburg, 2003) and demand a reconceptualization of learning on the part of learners who are schooled in traditional settings. The challenges posed by e-learning are thus better understood and addressed when there is an understanding of learner readiness in technology-driven classrooms.

In sum, it is believed that learners must be "e-ready" so that a coherent achievable strategy that is tailored to meet their needs may be implemented (*info*dev, 2001). Thus e-readiness assessments allow enablers and policy makers to take appropriate policy measures and implement development plans that help create informed participants in e-learning endeavours. Further, such assessments provide key information to educational institutions to supply solutions that can cater to the specific needs of each learning group (McConnell International, 2000).

METHODOLOGY

Instrumentation

This preliminary study employed a survey design involving a random sample of OUM receivers and enablers. Data were gathered with the use of the e-learning Readiness Research Tool, a questionnaire developed by a panel of experts representing 12 Malaysian education and technology-oriented institutions. The 60-item questionnaire consisted of two parts: 16 items focused on gathering demographic data and 44 items exploring eight constructs, namely, learner, management, personnel, content, technical, environmental, cultural and financial readiness. The core instrument was then customized for the two groups; for example, receivers did not answer questions on management readiness and personnel readiness, while enablers answered questions on all eight constructs. For the purpose of this paper, only relevant demographic data and data on learner readiness is reported.

Sample

A random sample of OUM tutors and learners from Diploma, Undergraduate and Post-graduate level were approached to respond to the questionnaire. The tutors taught and the learners were enrolled in a variety of programmes from management to teacher education. Altogether, 500 questionnaires were distributed to tutors and students. The response rate was 50% for tutors and 25% for students. Data were analyzed from a sample comprising 42 male and 51 female students, and 21 male and 14 female tutors; two thirds of the sample belonged to the 26-45 age group. The results of the analysis of purposively selected data from a total of 35 enablers and 93 receivers follow.

RESULTS

Demographic Profile

The results show that the sample is reasonably well-equipped to engage in e-learning. It was found that 100% of the enablers and 97% of the receivers had direct access to computers while 94% of the enablers and 77% of the receivers had to use the computer for work on a daily basis. Reportedly, there was a great amount and varied use of the computer by enablers: 97% of them used the computer for e-mail, 91% for sourcing information, 89% for software applications and 77% for e-discussions. On a lesser scale, 87% of the receivers used the computer for e-mail *and* for academic purposes, while 68% of them used the

computer for software applications. In as far as academic purpose was concerned, 65% of the receivers used computers for assignments and 59% used them for seeking information.

As shown in Table 1 below, the two groups differed in terms of the place where they frequently accessed the internet: while 74% of the receivers accessed internet from the home, only 31% of the enablers did so. Upon closer examination of the data, it was found that 29% of receivers and 69% of enablers accessed internet at their workplace. A further 12% of receivers went to cyber cafes for this purpose. As shown in Table 2, most of the receivers (68%) and enablers (82%) used the dial-up system for internet access while a smaller group used *streamyx* (broadband).

E-Readiness Profile

The data presented in Tables 3 and 4 show that there is a high degree of preference for conventional communication channels and modes of learning over those that are common to e-learning. The preferred channels of communication for both receivers and enablers were the use of face-to-face communication, SMS and e-mail rather than online chatting, memoranda or postal mail. In terms of modes of learning, printed or written material, face-to-face lectures or tutorials, online materials and interactive CDs or DVDs were preferred over online conferencing and online tutorials or lectures.

In Table 5, it can be seen that receivers and enablers differ over the issue of whether receivers are able to manage their time well for the purpose of e-learning. While 80% of receivers believed they were capable of managing their time well, only 43% of enablers perceived this to be true. In fact almost half of the enablers (46%) surveyed thought receivers could not manage their time well. In Table 6, while 80% of the receivers perceived sound interpersonal and social skills to be essential to e-learning and e-discussion, a third of the enablers (34%) did not think so.

There was also some degree of dissonance in as far as the status of distance learning and e-learning based qualifications were concerned (see Table 7). It was found that 71% of receivers and 66% of enablers expressed some concern over the fact that such qualifications may not be given due recognition (in comparison to qualifications accrued through conventional means). Despite such a conception, 85% of receivers and 54% of enablers felt that they would upgrade their professional and academic status through e-learning programmes. This was corroborated by the finding that most of the receivers (77%) and the enablers (66%) would engage in e-learning if they were given an opportunity. In fact, many of the receivers and enablers agreed that in the future e-learning would be used for training in every job. This was evidenced by affirmation from 75% of receivers and 66% of enablers. These data are presented in Tables 8, 9 and 10.

The receivers and enablers felt differently about receivers' commitment to e-learning. In the questionnaire, receivers were asked if they were committed in their pursuit of e-learning programmes and enablers were asked if they thought their learners were committed to the same pursuit. As shown in Table 11, there is little concurrence between the two groups on this matter. While 72% of receivers responded positively, only 31% of the enablers agreed. In fact more than half the enablers said that learners were not committed to e-learning.

Finally, on the issue of e-readiness, the respondents were asked to give a numerical grade to indicate their perceived degree of e-learning readiness among learners. Receivers were asked the question "How ready are you for e-learning?" while enablers were asked, "How ready are your learners for e-learning?" Respondents had to circle a number from 1-10 to indicate their perception of degree of readiness. In the analysis, the number of respondents in each group who had circled 1, 2 or 3 were grouped under the category "low degree of readiness" while those who circled 5, 6 or 7 were grouped under the category "medium/moderate degree of readiness." Those who circled anything between 7 and 10 were categorized as "high degree of readiness." The related figures are presented in Table 12 below.

It was found that only about a third of the sample perceived that learners were in an advanced state of e-learning readiness. This is demonstrated by the fact that only 38% of receivers and 32% of enablers rated learners 7, 8, 9 or 10. While many receivers and enablers perceived that learners were moderately ready

(49% and 40% respectively) twice as many enablers (18%) than receivers (7%) rated learners as lacking in readiness for e-learning.

INSERT TABLES 1-12 ABOUT HERE

DISCUSSION

Several distinct patterns emerged with regards to the analysis of data on e-readiness among OUM learners and tutors. First, there was a greater degree of e-readiness in as far as equipment was concerned in comparison to academic or cultural volition. Second, receivers appeared to be more positive about their own level of readiness in comparison to enablers' perception of learner readiness. Third, there appeared to be a high amount of preference among both receivers and enablers for non-electronic channels of communication and modes of learning in comparison to learning through e-networks. Finally, many individuals appear to be concerned about the status of qualifications attained through e-learning.

In terms of accessibility to and availability of the necessary technological resources for e-learning, results from the random sample shows that OUM learners have the capacity to pursue e-learning programmes. The availability of an internet connection at home for learners (as opposed to enablers) augurs well for them as there is a greater need for learners to study at home after work. In this regard, the inclination toward dial-up access versus *streamyx* (broadband) is probably due to cost and accessibility. Many OUM students work and live in small towns where these factors feature rather strongly.

Secondly, the preference for face-to-face lectures or interactive sessions as preferred channels of communication and modes of learning point to a particular learning style that is common among Asian societies. Many Asian learners are reticent in the classroom, and have an inclination to exercising their receptive skills (such as listening) as opposed to speaking or conversational skills. The finding that online discussions and online lectures or tutorials received a low rating is a matter for concern; learners' willingness to take part in these two learning resources and their capacity to mentally and psychologically respond to these modes of learning is crucial to the success of e-learning programmes. Additionally, the finding that there is a great deal of awareness about the need for interpersonal and social skills for engagement in e-learning programmes appears to be incongruent to the fact that there is a low preference for engaging in online discussions and tutorials. The study also found that a large group of receivers perceive that they are unable to manage their time well, a fact that is corroborated by several enablers. As time management appears to be an important element in the success of self-directed learning, present in most e-learning models of instruction, this issue needs to be further investigated.

Fourthly, the study revealed that there is a large amount of consternation with regards to the recognition of qualifications attained through distance education. Certainly, regulatory bodies and policy makers have a role to play in this regard, as they are the principals in the staging of e-learning initiatives in a country. Further, the fact that many respondents perceive that there will be a great deal of focus on online training for all jobs in the future, and that they are committed and willing to take part in online learning, the government has to take immediate steps in providing a just view of the validity of distance education programmes.

On a more dichotomous note, a number of enablers indicated that they would *not* use e-learning opportunities for upgrading their professional status. A large number also indicated that learners were not entirely ready for e-learning. These results beg the question of whether enablers, being older, and having been schooled in conventional terms, are in fact the group that is not ready for the transition to e-learning. It may be postulated that necessity requires learners to perceive themselves to be cognizant of the demands of e-learning, and hence they accord themselves a greater degree of readiness than is accorded them by enablers.

CONCLUSION

This study has raised a number of issues that are significant to the success of e-learning initiatives at OUM. It may be concluded that learners and enablers surveyed are moderately ready for e-learning, and that there are individuals who may need to be acculturated into the e-learning system before they can be said to be at an advanced state of readiness for e-learning. Finally, the study has shown that policy makers and regulatory bodies have to play a more concerted role in enhancing the image of e-learning programmes so that there is greater engagement in a technology-driven teaching-learning environment.

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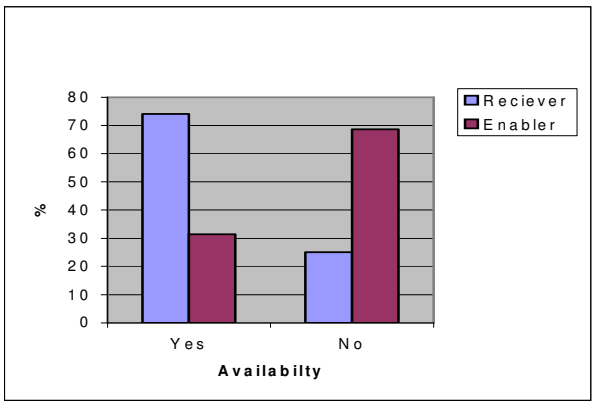

Table 1: Availability of internet at home

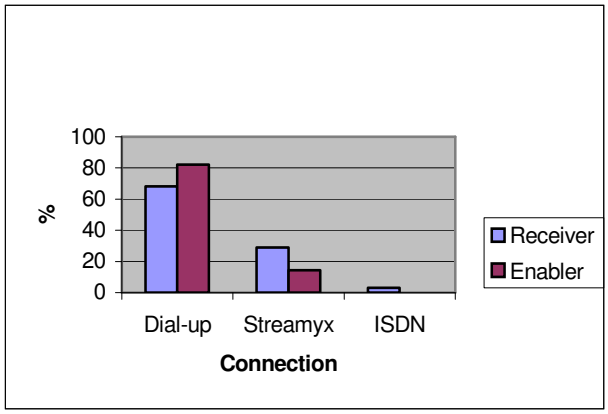

Table 2: Type of internet connection at home

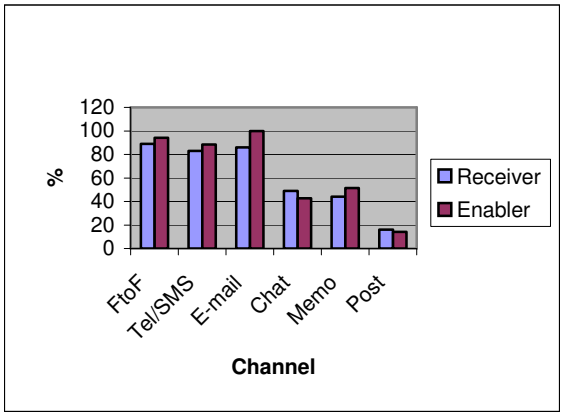

Table 3: Preferred communication channel

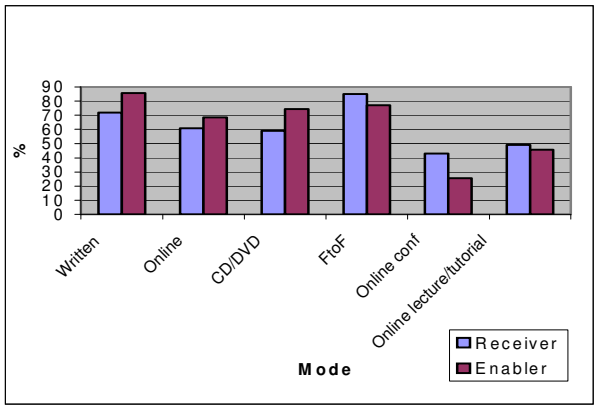

Table 4: Preferred mode of learning

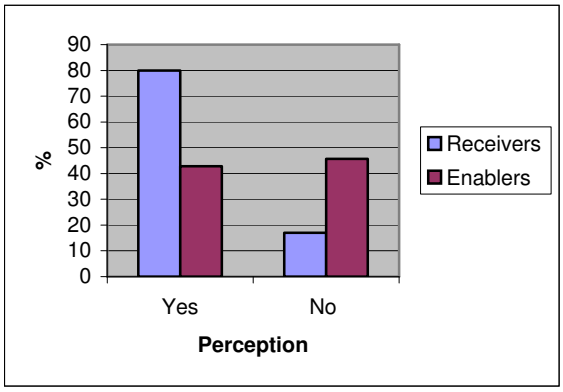

Table 5: Ability to manage time

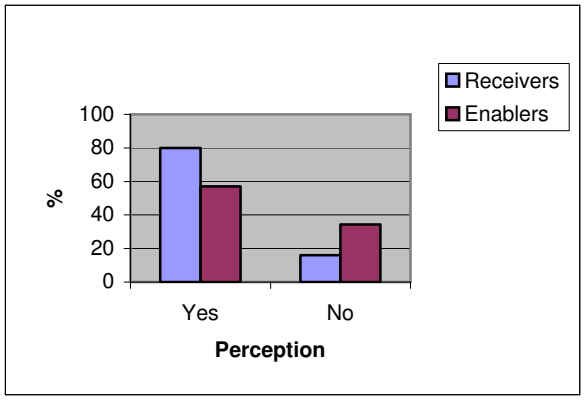

Table 6: Need for social skills

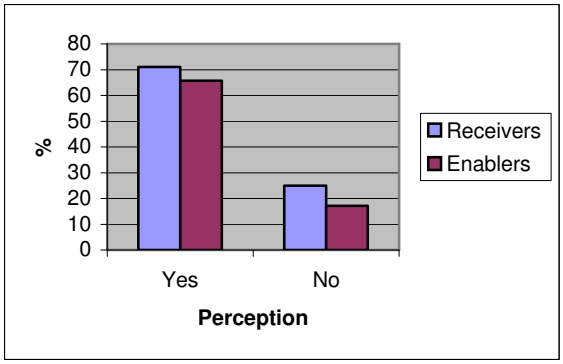

Table 7: Recognition of qualification

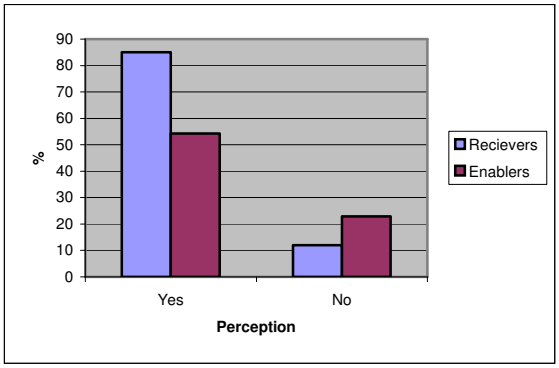

Table 8: Use e-learning to upgrade status

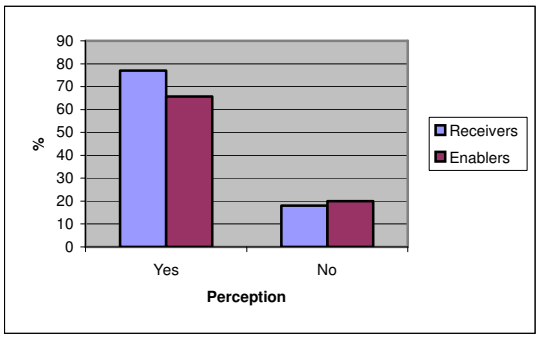

Table 9: Use opportunity for e-learning

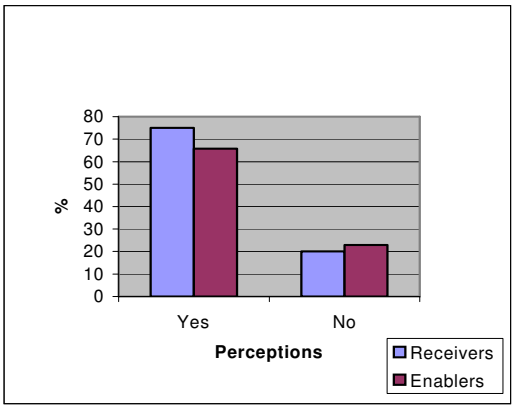

Table 10: Future use of e-learning for training in every job

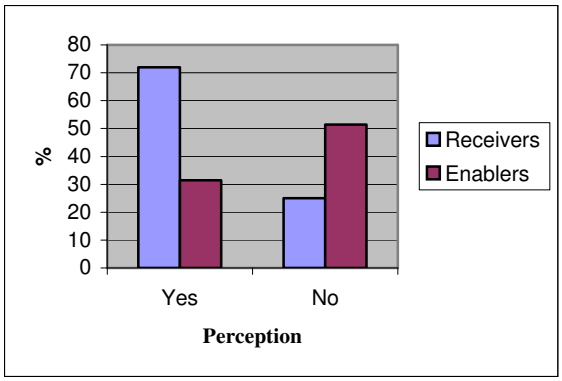

Table 11: Commitment to e-learning

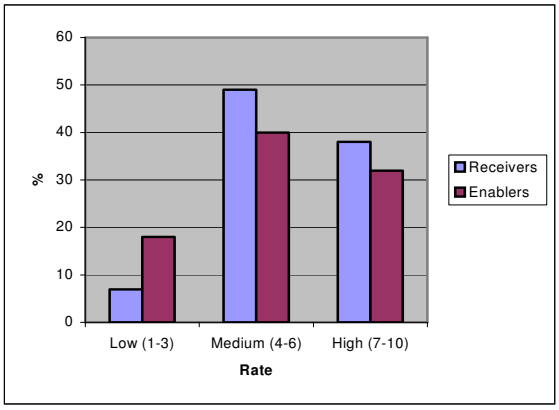

Table 12: Learner Readiness