

# The supportive distance learning environment: A study on the learning support needs of Malaysian online learners

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## Abstract

This paper reports the process and findings of a qualitative research designed to explore the perception of a supportive distance learning environment and the needs of learners of an online distance learning Finance course offered by Universiti Teknologi MARA (UiTM), Malaysia. The focus of the research was the learners' own reflection of their personal, academic and social needs as they trudged into the online learning environment. Using a phenomenological approach on seven participants, this article demonstrates how online learners were able to explicate their needs through their narratives on their initial experience, the difficulties they faced and what they believe to be a supportive learning environment. It further reports the email correspondence that took place during which the data was continuously subjected to content analysis and participant validation. Building upon existing theories of adult learning (andragogy), and online learning, this research demonstrates how seven adult learners perceived their learning needs as online learners. The results shows the emerging concept of a supportive learning environment and themes of needs that revolve around (1) the instructor, (2) structured learning resources and (3) regulation of learning activities.

## Keywords

Learning support, online learning needs, supportive learning environment

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## Introduction

The advent of technology provides opportunities for more interactive and flexible distance learning program to be developed. Traditional face-to-face learning and print based distance learning programs have experienced face lifts and adaptations to the web. While more working adults are studying online with no face to face interaction with the instructors, some may have left formal educations for years and with minimal computer skills (Ding, 2002). Carrying out a needs assessment on the learners entails more than just their academic background and reasons for pursuing their studies. This paper gives a phenomenological account of the needs of the learners, what they require to support their learning activities and what can be taken into consideration when designing the online learning environment. This is especially befitting for adult distance learners who are in the early stage of adapting to self directed learning and managing the technology enhanced environment at the same time.

The providers of Malaysian online distance learning programmes utilize various forms of technology from simple email to sophisticated learning management systems in addition to print based and/or computer based learning materials and monthly face to face seminars. Such blended approach has replaced the earlier generation of conventional distance learning programs. Despite the much publicized benefits of technology enhanced distance learning environment, the most important consideration remains the preparedness of the Malaysian learners (Nor Aziah Alias, Haziah Jamaludin & Salemah Ismail, 2001). Malaysian learners are very much adapted to an exam oriented educational system that span the first eleven years of their formal schooling life. They are generally dependent on the teacher and this tendency persists through higher learning as reported by Ziguras (2001) who examined the utilization of educational technologies to increase the flexibility of learning in Singapore, Vietnam and Malaysia. His site visits, analysis of promotional materials and semi structured interviews gave an account of the tendencies of learners at three Malaysian higher institutions to be "spoon-fed", to expect more direction and closer supervision from locally available teaching staff, to "not want to be left alone" and to have a high regard for lecturers. The problem of dropouts in the Universiti Teknologi MARA (UiTM) online learning program (the research site), as derived from a study done earlier, did not lie in the provision of technology infrastructure; it resided somewhere along the learner's needs – expectations continuum (Nor Aziah Alias, Haziah Jamaludin & Salemah Ismail, 2001). Learners have indicated a conventional view of their learning facilitators and were waiting to be taught during monthly seminars. Similarly, Malaysian distance learners from two other Malaysian universities were reported to express their needs for continuous human contact and the presence of a teacher figure to guide their learning (Hisham Dzakiria & Rozhan Idrus, 2003). On the other hand, online learning requires the learners to move from dependency to achieving self-direction and personal control over their learning. In order to sustain such transition, an in depth analysis of the learners' needs is required. What works in a learning environment depends more than just the proliferation of the latest technology but how it is best adapted to 'what is of necessity' to the users themselves.

## Learner Support in Distance Education

With minimal or no face to face interaction, learner support is a major component of the distance education system as can be seen from the numerous researches carried out pertaining to the issue. Zhang and Venkaiah (2000) in their study of twenty nine distance education experts in India reported 48.3% of the subjects carried out research in the area of student support services from 1995 to 2000. The importance of support was also highlighted by Harrison et al (1991) as one of the four major components of effectiveness in distance education programs, the other being instruction, management and telecommuting. Johnson (1996), in his study of twenty five distance education coordinators indicated that four elements were indispensable for positive distance learning experiences: thoughtful student selection and orientation, well-suited tele-teachers, purposeful learner interaction, and learner support. Belton (1994), Garland (1992) and Hall (1993) ascertained that distance education depended heavily on efficient support systems to provide quality education that meets student needs. Belton's Study of forty-five full-time senior students and part-time distance learners suggested that rural communities must become involved in developing the necessary resources to ensure support in the form of quality teacher-student interactions.

Other researchers reported the positive experiences of learning by students when technology such as audio teleconferencing (Anderson, 1994) and online program (Goodwin, 1993) are provided as major sources of learning support. The architecture of an open software platform based on unifying data model which supported educational activities was proposed by Pozzi et al (1994) while Scnepf (1995) studied and evaluated the prototype environment of the High Definition Distance Learning (HDDL) project, an application of distance learning based on network technology.

The structure of the support system and generic students learning needs such as course choice and study planning activities, support for students with disabilities, advice on university regulations and procedures and study skills activities have also been highlighted in research such as that of Reddy's (1997) and Fage et al's (1997). Support is also seen as embedded or within the course material. However, student support research tend to concentrate on systems (or centres) built to supplement the learning environment. More focus on learner support issues investigated from the students' perspectives is needed. A few research such as that of Nor Aziah Alias and Haziah Jamaludin (1997)'s presented four elements needed in a quality support system from a learner's perspective, mainly induction to new technologies, direction and control, feedback and accessible resources. Ehlers (2004) investigated quality in e-learning from a learner's perspective and put forward an empirical model representing learners' preferences in 30 dimensions and an analysis and description of four preference profiles. He ascertained that learners distinguish their quality preferences and can be grouped as the pragmatic (need oriented), the result oriented (independently and goal oriented), the individualist (content oriented) and the avant-gardist (the interaction oriented). May (1992) studied nine women distance learners and suggested strategies in the appropriate use of communication technologies and the effective application of feminist processes into distance learning environments. Most research takes a stance from the management and technology provision which explains the imposing character of learner support system in distance education. Basically, most institutions determine what is best for their distance learners.

Likewise, learning environment studies remain positivistic in nature with the use of instruments to measure the learners' perceptions and then imposing guidelines for the development of the learning environment though various support elements have been suggested by authors (Walker, 2002, Jegede, Fraser & Fisher, 1998). Malaysian researchers tend to use the term supportive learning environment in conjunction with the application of some technology or a new system but the concept of the supportive learning environment from a Malaysian learner perspective is rarely explored in an in-depth manner. Despite the fact that Malaysian organizations and higher institutions of learning have increasingly put their faith in technology to deliver learning, we know little from the learners' own narratives on their experience in technology supported learning environment.

In short, the issues tackled in this report are as follows. The Malaysian online distance learners are burdened with the absence of face to face instruction. They require a learning environment that will support and facilitate their learning activities. To study a learner's conception of a supportive learning environment, we went beyond the positivistic paradigm in order to probe an in depth understanding of meanings construed by the learners. With their power of speech, the learners are able to provide commentaries and interprets situation. The support elements conceived by the learners and reported in the paper are then the true reflection of their learning needs. The tendency is to impose the characteristics of a supportive system while the central idea to distance education is learner autonomy. This study addressed this issue and concurred with the opinion that what befit the learners in their learning environment should emerge from their own needs and perspectives.

In this study, an online, distance learning environment signifies a networked environment where learning activities occur while the instructor and the learner are separated by location and/or time. Learning support elements are defined as the elements in a learning environment that aid the development of new knowledge, skills and attitudes when the individual interacts with information and the environment.

## Research Purpose and Research Questions

This study focused on the online learner's concept of a supportive distance learning environment. It also zoomed into their needs of elements in a learning environment that would support their learning objectives, study processes and learning outcomes. It aimed at identifying the learning support elements conceived by the learners as essential to facilitate learning.

The following questions constituted the launching point for discussions carried out with select participant/informants in order to understand their conceptions; the questions guided the inquiry into their needs of learning support elements in an online environment.

1. What are the participants' (online distance learners') concepts of a supportive learning environment?
2. How does a participant's past experience in distance learning, affect his or her concepts of a supportive distance learning environment?
3. What do the learners need in terms of elements that constitute a supportive distance learning environment?
4. How do the learners' needs change as they progress into their study?

These questions are qualitative in nature and are aimed at identifying conceptions of a supportive distance learning environment and the needs of online learners.

## Method

The distance education research has by far been limited to the transfer of experimental method from physical to social sciences (Saba, 2000). The pure experimental method was modified to quasi-experimental to fit the special consideration of education research. However, new methods that go beyond the narrow confines of experimentation such as student self-reporting (Nor Aziah Alias & Haziah Jamaludin, 1997) self reporting through a survey study, (Gunawardena, 1995), extensive interviewing of students (McDonald and Gibson, 1998), conversation and discourse analysis (Chen & Willits, 1999) cast a wider net for capturing the data generated by the interaction between the teacher and the learner in both of its qualitative and quantitative forms.

This research employed a naturalistic approach to understand the phenomena of supported learning in the context of an online distance learning settings. The overall research model used was one of phenomenology as we seek to allow the participants' responses defined the nature of the finding through emergent themes.

### Research site

The site for the research was the web based, online learning forum of a local university's Flexible Learning Programme. The programme was chosen because it was the pioneer programme for online academic distance learning in the country. The program has reached its maturity stage since its inception in the year 1998. It has settled most of its teething problems and this feature made it appropriate for us to explore both the learners' experience and perspectives of their learning environment without having to deal with major system malfunctions or technical glitches. Entry into the site was expedited by the fact that one of the researchers is a member of the university's virtual community. Besides the infrastructural access, the researcher was also able to communicate with the instructors of the different courses. Permission was sought from the Assistant Head of the Flexible Learning Programme and the instructor of the course selected. Permission sought also involved pledges of unobtrusiveness and confidentiality.

### Participants

At the onset of the research, a pilot study was conducted with two participants from another university who have undergone and successfully graduated from an online learning programme. Seven Bachelor of Business (Finance) students were later identified with the help of their instructor. Four of them responded with interest in participating in the research. In addition, a lecturer from UiTM accepted the invitation to participate. The lecturer, who studied online with another institution, was involved in the university's flexible learning program. All the participants had or were still registered as online distance learners. They were not attending any conventional campus based courses at the time the research was conducted.

The participants were Malays; they were also matured, working adults whose annual income ranging from an approximate figure of MYR 30,000 (approx. EURO6500) to MYR 72,000 (approx. EURO15600) per annum. Their age ranged from late twenties to late forties. Six of them lived within 60 km from the main campus while another resided in a neighbouring state. The students used web based and print self instructional materials with the option of attending monthly seminars held at the university's main campus and branch campuses in various states. Most participants attended the seminars. They accessed the university's online learning website from home or their work place.

### Sampling

As in all qualitative research, sampling was purposeful. The student-participants for the study were selected from among the BBA (F) students mainly due to the easy access made possible by their instructor who herself was interested in the outcomes of the study. The research was conducted during the participants' third semester of study. We refrained from selecting students who have failed badly during their first semester of online learning in order to secure objectivity and to avoid over zealous finger pointing or person blaming in the responses. We chose participants who had earned an A, a B+, a B and an A- from whom consents were obtained before the interviews. Background information was obtained from each participant and from the university's data base. Pseudonyms (Omar, Isaac, Hazel, Lily, Johan, Adam, Lina) are used in this report to protect the participants' identities. The same procedure of informing and gathering background information was carried out with the lecturer. Employing the lecturer allowed triangulation of findings and test issues of reliability and credibility (Marshall & Rossman, 1999). Since the lecturer pursued online education with a different university, the similarities in the participants' responses can be attributed to their individual needs and not due to the inferiority of the learning system.

### The researchers' role and experience

The first researcher positioned herself as an instructional designer who was seeking their opinions and ideas about the learning environment as an evaluation of the current system. As such, participants knew from the outset, the research intentions. Discussions pertained only to the research unless the participants seek to do otherwise. In any case, the researcher relented to listen to 'their other stories' up to a certain limit. There was no probing into the subject matter or the present teaching-learning process. The first researcher's experience as an online learner was of benefit to this research. Maintaining a prompt response to the participant's input or e-mail was crucial. An online learner's mode of communication is mainly via e-mail and online forum. The researcher was aware of the importance of listening and opening the floor for further discussion related to the research questions right from the onset of the research.

### The e-mail interviews

Apart from the online forum which was employed for discussion, the participants used e-mails to communicate with their instructor and colleagues. We capitalised on the use of e-mails while observing the participants' input in their discussion forums. In general, e-mail correspondence is non coercive and promotes an anti-hierarchical dialogue. This was apparent in the ease and choice of communication mode opted by the participants in this study. One particular participant requested to know more about the first researcher's family while another simply addressed her as "Nor" without ever referring to her age or academic status.

Moreover, the online learners were interviewed in their natural setting where they had access to the internet and were generally comfortable with the mode of communication. The e-mail interviews were not constrained by geographical location or time-zone. They were not limited to synchronous communication and without the interviewer effect, the respondents were able to take their time to reflect upon their experience. Not only did we manage to prevent any problems of dominant or shy participants, concepts of race, gender, age and sexuality did not apply when communicating electronically. Of course, the icing on the cake came in the form of readily transcribed data which negated the problem of tedious transcribing them.

Clarke (2001) and Selwyn and Robson (1998) exhort that the main disadvantage of e-mail and electronic

focus group interviewing may lie in its lack of tacit communication. But there was very little repercussion in the study as the participants were adults who are used to expressing the opinions and relating their experience via the medium. Moreover, we took steps to listen, reassure and develop sensitivity as the condition for preserving a personal relationship with the participant. We did not face any issues of confidentiality, anonymity and privacy as the participants were aware of the study and the matter discussed was not strictly personal or private.

## Research Design and Data Collection

The general research strategy taken can be described as a mixed form of naturalistic inquiry with qualitative measurement and content analysis (Patton, 2002). Observation of the online forum was also considered to support the findings of the e-mail interviews. The design of this phenomenological research technique began with the learner's description of his learning experience in an online environment and his conceptions of a supportive learning environment. The stages of research include designing and piloting the interview questions, selecting cases, observing respondents in their learning environment, analysis and extraction of themes. The research was designed as an email interview that involved a pilot study which assisted us in recognizing the possible outcomes and restrictions of the research. The results of the pilot study also revealed themes within a few emails sent.

The participants were briefed on the time limit and implications of the study after an introduction of the first researcher's role and objectives of the interviews. The researcher started by asking about their background and study intentions before proceeding with the actual interview. An example of the question given to the participant was "Think back and write down the story of your first encounter with the online learning environment - and describe your experience of the event in as much detail as possible." Even though there was no set time limits, the participants generally responded within three to four days. In most instances, the researcher replied with probe questions such as

*"You mentioned web cam and you showed concern with communicating with other students and lecturers. Perhaps this is an important online learning element to you?"*

The principal challenge was to preserve the participant's interest in the research. A participant's initial excitement may disappear after having to face network problems and the burden of their working lives. We put in effort to keep in touch, asking them about their well being while leading them to elaborate further on the matters discussed in order to produce consistent data and to reach relevant core issues. We even proceeded with a telephone interview with Omar who had problems connecting to the internet as the interview came to an end. English was the original medium of instruction. However, we gave the freedom to the participants to respond in Bahasa Malaysia whenever they felt comfortable doing so. The e-mail interviews were based on an interview guide approach (Patton, 2002) where topics and issues to be covered were outlined in advance. We determined the sequence and working of questions as the interview proceeded. The interview lasted for a period of ten weeks. We took into account the participants online availability and allowed time for asynchronous responses. We provided a maximum feedback or response time of forty eight hours to each of their posting.

## Strategies for Data Analysis

The purpose of the phenomenological investigation is to determine what the meaning of the event was for learners, instead of accepting that a predetermined answer to the question is known (Pietersen, 2002) Thus, we approached the study with no preceding ideas as to the possible concept of the supportive learning environment for online learners. We did, with great effort, bracket out any preconceived ideas and allowed the data to speak for itself.

Initial analysis was carried out throughout the research. The responses of the learners to each question were retrieved from the computer groupware and closely examined to determine whether they were sharing experience rather than pre-digested theoretical knowledge. The protocols (descriptions) were read independently of each other in order to obtain an intuitive grasp of the description. Statements made by each learner which were distinctive aspects of his or her experience were retrieved and listed in the exact same words they used. The statements were then collapsed into emergent themes.

Throughout the initial analysis, we coded and developed categories and subcategories from the findings. We re-stated ambiguous participants' phrases and forwarded them to the respective participants for verification. For example, Isaac was issued the question "Am I right to say that to you a supportive online learning environment is one which provide you efficient access to study materials and lecturers?" of which his response was

*"Absolutely right! That's what we wanted for. But unfortunately at the moment our study materials especially in Past Year Question doesn't (isn't) really up to date. Some still showing year 2001 question paper instead of 2003..ahaks."*

The member checks enhanced the validity of the study by verifying the transcripts of data that were obtained from participants. In some instances, we replied with probe questions. We also looked out for expressions of emotions such as "We were so frustrated !!!!". A typology of the emergent themes was developed to present the findings of the research.

## Findings

### The general description of the participants as online distance learners

Basically the participants chose to continue their education for the purpose of enhancing their careers which might have overlapped with self fulfilment. The participants were working adults who chose this mode of learning mainly due to its convenience, flexibility and timeless access to learning materials. Participants also mentioned online learning as

*"an up-to-date study skill" and "fast and hassle free... no barrier, no traffic jam, no toll, no yawning in the class listening to certain dry subjects by certain fatigue lecturers etc and lastly ... no extra monies incurred to attend the class".*

All the seven participants had a solid idea of what online learning could offer. The participants were quite ready to face the challenges of online learning and despite the set backs they experienced, the participants managed to continue or complete their learning program. They portrayed the characters of the responsible and resourceful adult learners so commonly identified as pertinent to the success of online learning.

## Participants' needs and concept of a supportive online learning environment

Most participants expressed their needs as online learners while simultaneously relating earlier events that drove them to seek help. Perhaps it is appropriate to say that the frustrating events were reflected in their perceived needs as online learners.

The need for effective communication in the form of a peripheral web cam was related by Omar, whose brother is currently pursuing a degree in Information Technology. To him, the present system "is already good enough" but he stressed that he was facing a problem of "NO INTERACTION AND COMMUNICATION at all from the lecturer". His concept of a supportive online learning environment was *where there's effective communication between students and instructors*. Omar's concern with effective communication was also in agreement with the results of a survey on 139 distance education students carried out by King and Doerfert (1996). The students surveyed denoted the need for high quality interaction regardless of delivery method.

The necessity of constant support from the instructor was also expressed by Lily who viewed a supportive online learning environment as one *"where I can get hold of the instructor anytime"*. Lily needed instructors to show their support and interest in what she did. She was more dependent on her instructor than her online peers. Lily probably placed emphasis on her interaction with the instructor because she depended on him or her for her grades. Grade was probably Lily's most significant motivator.

Isaac spoke of his needs for access to study materials and lecturers. He was an efficient learner and he was very particular about time spent on the web. He had his own study schedule and was putting forward ideas of the use of CD ROMs for compilation of past examination questions to supplement learning. He felt that learning tools such as the CD ROM which would require less download time would be essential in supporting his learning. Isaac showed great resentment towards the instructor's attitude and stressed the need for better information dissemination. His idea of a supportive online learning environment was *one which provided efficient access to study materials and instructors*.

Isaac's sentiments were shared by Johan who stressed that the study time available to a working adult is limited. Johan was more concerned with the registration process than the learning environment itself. Johan exemplified the typical Malaysian who opted for further education for the sake of the scroll as depicted in his response:

*"Most of us only desire the scroll to boost our status (translated)"*

To Johan, working students brought with them a repertoire of experiences to be applied and shared and hence, did not need theories outlined in the printed self learning instructional materials. He needed simple, concise explanations; he cited the use of flow charts as an example. Johan's basic idea of a supportive learning environment seemed to be one *where learning could be made simple and easy*.

In general, a learner's grasp of the language used for the medium of instruction can significantly affect his or her choice of study materials. Adam, the sixth participant, did not make it to the end of the interview. He seemed uncomfortable corresponding in English and expressed uneasiness about being interviewed even though he has agreed to it earlier:

*"...am rather nervous at being interviewed (translated)"*

Adam managed to identify his difficulty in understanding the printed self instructional modules while his basic need "is to gather much knowledge from any subject that I've studied". Adam ceased to respond and dropped out of the correspondence even after much coaxing. However, Adam emailed the first researcher regarding his performance in the exam weeks after the ten-week research duration. Adam narrated his frustration in his inability to retrieve what he studied and asked for advice on enhancing retention of facts and information. The event signified the need to scaffold the meta cognitive self regulation aspects of learners like Adam.

In the research, Hazel and Lina were inclined to credit their peers as supportive elements. However, Hazel maintained that a supportive online learning environment *"should have elements that enable the students to obtain information easily"*. She gave online resources and links to URLs as useful features that would assist working adults so "they wouldn't have to go to the library". Hazel also discussed a help desk that could facilitate attention and feedback to problems. She found it very frustrating to be faced with a problem and "there is nobody to help". Even though she had earlier highlighted the 'friends' she made online, Hazel saw the need to call attention to problems that demanded assistance from the program provider.

## A Typology of Learning Needs

### Instructor Support – The need for physical cues and instructor's presence

The most significant element needed by the participants was instructor support. While the need for technical support decreased as they moved into the second or third semester, prompt feedback, responses and interaction with their instructors remained pertinent to the participants. The need for a "learned" figure was still apparent even though the participants were rather technology savvy and understood the availability of resources on the internet. This need which was termed by Moller (1998) as the need for an academic community, one that is provided through interaction between learners and information facilitators such as teachers, content experts and trained tutors was most prevalent in this research. Researchers such as Jiang and Ting (1999) also found that the amount of student-instructor interaction and the online discussion activity played an important role in predicting students' perceived learning.

The participants had grouses over instructors who "used to disappear for a long time" or who "don't like to use the web to inform everything regarding class, test and final". They saw the instructor as a person who could and should assist them by regulating their learning activities. The observation also showed the engagements of three of the participants (Hazel and Lily excluded since they have graduated) in the online forum. Their postings on the forum were directed to assessments, seeking information from and corroboration with the instructor. The participants were utilizing the online learning environment for quick information and feedbacks from the instructor; there were little evidence of them interacting with other learners for social purpose.

### Learning tools and resources

Perhaps the best way to describe this category is to view it as the need for just-in-time learning tools and resources. The participants did not find major problems with the online system but they were seeking accessible and time saving resources (CD ROMs, compilation of past exams). Participants' comments such

as "I think current web page has provided me sufficient info." and "In my opinion, I think that the university's online system is already good enough" led the researcher to believe that their needs for an advanced system with the latest technology integrated into it were not that compelling.

### Peer support, self efficacy and regulation

It is interesting to note that peer support was not apparent in the narratives of the younger participants. Observations of the online forum showed that most of the participants were not capitalizing the forum for social purposes or discussion on the subject matter with their online peers. As reported earlier, peer support was identified by female participants who were above 35 years of age. For these two participants, peers were more than just for social purposes. Hazel, for instance saw the beginning of a learning community.

The other participants did not see the need for a supportive peer support. Perhaps as adults, they placed priority in solving their own problems first. The interplay of self efficacy and self regulation were prominent in this research. Participants recalled how they handled and later triumphed over the mishaps. Lily, Isaac, Johan and Omar aptly showed this character through their remarks:

*"Imagine that I can only squeeze my time to study and do all sorts of assignments only after 11.00 pm which normally ends up by 2.00 am ...and wake up by 6.00 am and start working ...tiring, isn't it? But that's the challenge!"*

While the participants showed resilience and strong self efficacy, they showed evidence of needing support where regulation is concerned. Again, this could be attributed to the fact that the participants were working adults who shouldered family responsibilities and were hard pressed for time. Isaac, for example reiterated that a system which regulates his studying would be splendid.

*"...especially for Test, due date Assignments and Final Exam (and case like the above incidents). Motivational message?... That's good!!"*

To ensure the credibility of this research, the help of a fellow researcher was employed; she categorized the needs as (1) learner-instructor interaction, (2) access to learning materials and (3) time and logistical support. She noted that most of the participants were motivated and their needs were basic needs that reflect their concern for external factors that were beyond their control (absence of instructor, for instance). In general, we agreed on the gist of the meanings extracted from the participants' responses.

### Change of Needs

Apart from some shifts in expectations and initial adjustments, there was no substantial change in the participant's needs as he or she progressed into the study program. Most participants related instances of technical difficulties early in the program. However, as discussed earlier, these difficulties did not impede their persistence and were seen as manageable. In fact, they did not see technological advantage as an essential factor for them to succeed in an online learning environment. Communication and interaction with the instructors remained essential as they recapitulated their earlier and present needs.

### Participation in the Online Forum

The online forum is part of the support provided to the distance learners at Universiti Teknologi MARA (UiTM). Basically, it is used for learner-instructor and learner-learner communication. Instructors tend to pose notices and subject matter related questions in the forum, to which students are expected to respond. Of the four student participants, Omar and Isaac showed significant involvement in the forum. Adam and Johan hardly participated. However, no conclusive statement can be made from the observation since the group had problems with their facilitator who did not log in and was not interacting with the students until the latter part of the semester. The researcher managed to observe Adam and Johan interacting with their peers but the observation data was not sufficient to warrant any identification between their narrated needs and their online learning behaviour.

### Conclusions and Recommendations

Jung (2000) in her assessment of online distance education research stressed that research on internet-based education had indicated that "student-centred learning environment", "full of multimedia resources", "expanded interactivity", and "adaptability to different student characteristics" were distinctive features of Internet-based education, most of which reflected integration of technological features of the Web into instruction. However, we discovered less technology oriented needs when we look at the learning environment from the students' perspectives. The need for "sustained conversation with the instructor", "structured and specific resources" (not merely a multitude of multimedia resources) and "assistance in regulating learning activities" (which was also related to the instructor's role) were extracted from those participating in the research.

Wolcott (1990) questioned the very idea of conclusions which we agree as this paper reports the experience and needs of only seven participants. Nevertheless, the thick and rich descriptions provided by the participants could be something to reflect and act upon. Even though we are not out to generalize these findings, we see them as an invaluable guidelines for instructors, providers and instructional designers of Malaysian distance education. Suffice it to say that the research results confirmed our own beliefs that the 'teacher' is irreplaceable and that efforts to humanize the computer based system could prove futile. We would suggest other follow-up research in the 'art and science of helping adults learn' especially in the online learning environment so that there would be a bigger body of knowledge from which we can base our understanding on.

Research on adult online learning in a Malaysian context is paramount as there is a great need to understand the experience, advantages and anxieties brought into the flexible learning environment by students borne out of the existing didactic teaching and exam oriented educational system. As Mioduser, Nachmias, Lahav, and Orne (2000) asserted, the pedagogy of online learning has to be studied and scrutinized. Most Malaysian providers took the leap in providing online learning program but the contents and the pedagogical approach remained somewhat particular to the traditional face to face learning approach. Transferring contents online and giving students the access to email and learning management systems do not translate to successful online learning.

More research is also needed to address students' personal factors and social factors in an online distance learning environment. These include interpersonal, social interaction and social presence among learners, all of which to be taken from a culturally sensitive perspective.

The results presented in this study can be further extended to incorporate a wider network of participants for the purpose of instructional design and the provision of online, distance education program. The findings may give a basis for the construction of an instrument or a statistically validated research that could contribute to the learning needs assessment and learner analysis stage of the instructional design process.

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