COMPARING APPROACHES TO STUDYING OF MALAYSIAN DISTANCE LEARNERS AND ON-CAMPUS LEARNERS: IMPLICATIONS TO DISTANCE EDUCATION

INTRODUCTION

This paper compares the approaches to studying of Malaysian distance learners and on-campus learners to find out to what extent the distance learning programme of a public university in Malaysia is effective in meeting the learning needs of its distance learners. The influences of the differences in modes (distance learners vs. on-campus learners) and disciplines (Social Sciences vs. Applied Sciences vs. Business Administration) on approaches to studying were studied statistically using item analysis and scale analysis.

This paper first discusses the findings of this study in the light of other research carried out in this area and secondly, and more importantly, in the light of its contribution towards a better understanding of the learning needs of Malaysian distance learners.

BACKGROUND

Entwistle and Ramsden (1983) pointed out that, although there had been an increase in research into higher education in the United Kingdom, little direct attention had been given by researchers to the process of student learning and the effects of teaching on it. However, the situation has changed dramatically in the last two decades, not only in United Kingdom, but also in other parts of the world. My review of literature revealed that there has been an explosion of research into individual differences in student learning. The increase in research tools to investigate student learning has also increased tremendously with the development of various inventories for quantitative research and different methodologies for qualitative research. In the field of investigating approaches to studying quantitatively, the three most widely used inventories are: The Approaches to Studying Inventory (ASI) developed by Entwistle and Ramsden (1983), the Student Processes Questionnaire (SPQ) developed by Biggs (1979) and the Inventory of Learning Processes (ILP) developed by Schmeck et. al (1977).

The scales of the SPQ are similar to those of the ASI in many ways, despite the fact that SPQ was developed and validated on samples of students in Australia and Canada, and the ASI on British students. In addition, studies carried out using either of these questionnaires suggested a broad distinction between Surface Approach and Deep Approach that appeared to have a certain degree of cross-cultural validity. This finding brings the two inventories closer together, and reaffirms the validity of both instruments within a defined boundary. However, only a moderate degree of overlap was found between the ILP and the SPQ (Schmeck et. al, 1977).

Although research into student learning has come a long way these last two decades, research that compares approaches to studying of distance learners and

on-campus learners is still in its infancy. The better-known studies of such nature include those by Morgan et al., 1980; Watkins and Hattie, 1981; Watkins, 1983; Harper and Kember, 1986; Richardson et al., 1999).

In the Malaysian context, a review of literature on distance education (see Alsagoff, 1985; Universiti Sains Malaysia1993; Abdul Rahman, 1994; Mohammed, 1999, Atan et al., 2003) and my personal observation of the situation have revealed that insufficient attention has been given to the learning needs of distance learners in Malaysian public universities who are offering both on-campus and distance learning courses, particularly in the learning of English. This study is an attempt to address the need for more research in this area. It utilises the ASI to compare the approaches to studying of Malaysian distance learners and on-campus learners (from three disciplines) in Universiti Kebangsaan Malaysia (UKM).

Empirical studies of approaches to studying of distance learners

To my best knowledge, the first study on approaches to studying of distance learners was carried out by Morgan et al. (1980). They were interested to find out whether the approaches to studying of students following foundation courses in Social Sciences and Technology with the British Open University were the same as those identified by Entwistle and Ramsden (1983), who undertook a study on 2208 second-year students taking psychology and engineering with various campus-based institutions. Morgan et al. modified the ASI to make it appropriate for the distance learning context and administered it to 357 subjects. They compared the scale scores of the Open University students with those of Entwistle and Ramsden (1983) and found that Open University students studying Technology had similar approaches to studying to those of Social Sciences, except for the scales of Intrinsic Motivation, Comprehension Learning and Extrinsic Motivation. In contrast, there were many differences between the approaches of studying by the on-campus students of Engineering from those of Psychology. Morgan et al. suggested that, in the case of on-campus students, the marked differences between the departments of Engineering and Psychology presumably reflected the nature of the subject area and the methods of teaching and assessment of the particular department. The similarities, in the case of Open University students, they suggested were due to the fact that the influence of the Open University's 'in-house style' of course was so strong that it overrode the demands of different subject areas.

A comparison of subscale scores between Open University students and conventional students revealed that Open University students produced higher scores on three of the four aspects of Meaning Orientation (i.e., on Deep Approach, Relating Ideas and Intrinsic Motivation) than conventional students and lower scores on 'Extrinsic Motivation'. Surprisingly, they also produced higher scores on Surface Approach. This was attributed to the Open University's 'in-house-style' course design, which emphasised the 'transmission' of knowledge from the course team to the students (Morgan et al., 1980).

Harper and Kember (1986) examined approaches to studying of 348 internal students and 431 external students at Capricornia Institute and the Tasmania College of Advanced Education in Australia. The questionnaire used was a slightly modified version of the ASI. It was revised to conform to the local terminology at each institution and to make the statements meaningful to external students. The subjects consisted of a spread of students from the Schools of Applied

Sciences, Business Studies, Social Work and Teacher Education. They conducted a three-way analysis of variance test using the variables mode, subject and sex, with age as a covariate (Nie et al, 1975: 398) for each of the subscales. The results revealed significant differences with the Deep Approach, Relating Ideas and Intrinsic Motivation subscales, which were caused by the higher scores of older students. These students also appeared to be less syllabus-bound. Harper and Kember suggested that the results showed that older students, rather than their younger counterparts, display learning characteristics which traditionally higher education has purported to strive to develop in students.

These results are consistent with the findings of Watkins and Hattie (1981: 393) in a survey of students at the University of New England. They found that mature students tended to be less motivated by pragmatic concerns and more liable to adopt a deep-level approach to their work than school-leavers. Watkins (1983: 3) found that mature entrants at the Australian National University were more likely to utilise 'deep-level' strategies early in their tertiary studies than school leavers, who, in turn, were more likely to rely on 'rote-learning'.

However, Harper and Kember's (1986) analysis of variance in which age, sex and discipline had been controlled for revealed that there was no significant differences between external and internal students on any of the 16 subscales both qualitatively and quantitatively which was a contradiction of their earlier findings.

Richardson et al. (1999) conducted a study to determine the approach to studying by of 2,288 post-foundation students taking courses by distance learning at the Open University. They analysed the scores on the subscales of the ASI of the post-foundation students and compared them with the results from the campus-based students who had been assessed by Ramsden and Entwistle (1983). They found that the scores produced by the two groups of students were significantly different on all except one of the subscales and that moreover, in seven of these subscales, the difference could be regarded as being of practical importance in terms of the corresponding effect size. The significant difference was that the distance learning students produced higher scores than the campus-based students on three of the aspects of Meaning Orientation but produced lower scores than the campus-based students on two of the aspects of Reproducing Orientation and two of the aspects of Achieving Orientation.

Although the results of a majority of these studies suggest that distance learners (who are mostly older students) use more effective approaches to studying than on-campus learners, there are also results that indicate otherwise. Thus, there is a need to carry out further research in this area, especially since (as far as I am aware of) no such study has been carried out in the Malaysian context.

UKM DISTANCE EDUCATION SYSTEM

The study was undertaken in UKM, one of the eight public universities in Malaysia. The UKM distance education system was launched on 1 October 1995. It was supposed to develop in three phases. It was decided that for the first phase of implementation, which was expected to cover a period of three years, only printed materials and cassettes would be used as the main mode of delivery. This would be supplemented by exercises, assignments, projects and intensive face-to-face classes that would be conducted by the lecturers involved. For the

second phase, an interactive section, which would use the services of tutors trained by the various faculties involved together with equipment such as videos, teleaudio aids and e-mail, was supposed to be included. The third phase was supposed to incorporate an individual interactive system, which would allow student-lecturer-material interaction through a communication medium. This would mean removing tutors at the various centres, and having a centralised approach to tutoring.

However, in view of the Government's decision to formulate the Malaysian Open University (MOU), plans to implement stages two and three were shelved. Since 2002, UKM has stopped taking in new distance learning students and MOU is taking over as the main providers of distance education in Malaysia. Developments are still rather slow.

MOU has incorporated many elements of phase 2 and is progressively moving towards utilising a more technologically advanced system. Despite the dissolution of the distance education system in UKM, the findings in this study are still applicable to the Malaysian context as the distance learning students in UKM come from the same sample population as the distance learning students in MOU as well as other distance learning institutions in Malaysia.

RESEARCH QUESTIONS

The primary concern of this study is the exploration of students' experiences of learning. A five-year Social Science Research Council Research Programme (which begun in 1976) undertaken by Entwistle and Ramsden (1983) to investigate the processes of student learning and to determine the extent to which these reflected the effects of teaching and assessment demands, is particularly significant to this study as the theoretical framework for this research is largely based on it. Specifically the study addresses the following questions:

(1) Are the Malaysian distance learners' approaches to studying different from those of the Malaysian on-campus learners and if yes, in what ways?
(2) Are the approaches to studying of Malaysian distance learners from the following disciplines different from those of the Malaysian on-campus learners and if yes, in what ways: Social Science, Applied Science and Business Administration?

RESEARCH INSTRUMENT

The questionnaire named The New Approaches to Studying Inventory (NASI) was used for this study. It comprised items taken mainly from the Revised Approaches to Studying Inventory (RASI) (Entwistle and Tait, 1994), supplemented with some subscales and items from the original Approaches to Studying Inventory (ASI) by Entwistle and Ramsden (1983). See Table 1 for the meaning of the scales/subscales of NASI.

Table: 1
Meaning of the scale/subscales of the NASI

Scale/subscale	Meaning
1. Deep Approach	
Looking for meaning	**Learners look for meaning in studying.**
Active interest/critical stance	**Learners have an active interest in subjects studied. They interact actively with what is being learnt and link what is being studied with real life.**
Relating and organising ideas	**Learners relate new information to previous information actively and organise ideas mentally.**
Using evidence and logic	**Learners use evidence and logic in trying to understand materials and to arrive at conclusions.**
2. Surface Approach	
Relying on memorising	**Learners rely on rote learning.**
Difficulty in making sense	**Learners find difficulty in understanding and making sense of what is being read and things that have to be remembered.**
Unrelatedness	**Learners find difficulty in perceiving what is important and also in seeing an overall picture or how ideas fit together.**
Concern about coping	**Learners are unduly concerned over ability to cope with work.**
3. Strategic Approach	
Determination to excel	**Learners are competitive and self-confident and determined to achieve success.**
Effort in studying	**Learners put in extra effort to make sure that work is being done well. They work hard and are able to concentrate well on work.**
Organised studying	**Learners have organised study methods. They make an effort to ensure that appropriate conditions and materials for study are available.**
Time Management	**Learners are able to organise time effectively and able to abide by good study plans.**
4. Lack of direction	**Learners are cynical and disenchanted about higher education. Feel driven to enter university to please others.**
5. Academic-self confidence	**Learners feel confident about ability to cope with work. They have no difficulty in understanding new information and ideas.**
6. Extrinsic Motivation	**Learners are primarily motivated by the qualifications and the prospects of a good job on graduation.**
7. Syllabus-boundedness	**Learners have the intention to restrict learning to the defined syllabus and tasks requirements.**

RESEARCH PROCEDURES

The subjects were first- and second-year distance learners and on-campus learners of UKM from three disciplines, namely Social Science (Soc. Sc.), Applied Science (Appl. Sc.) and Business Administration (Bus. Adm.). They comprised students of three ethnic origins, namely Malays, Chinese and Indians.

The questionnaires were distributed to the on-campus students by their class instructor during the second last week of the second semester. In the case of the distance learners, the questionnaires were distributed to them at the beginning of their final examination and they were asked to return the questionnaires before the end of the examination week. Altogether 1000 copies of the questionnaires were distributed to the distance learners and 500 copies to the on-campus learners. The reason why such a large number of questionnaires was distributed to the distance learners was because there was no way of ensuring that they would return the questionnaires. In the case of the on-campus learners, it was easy to ensure a high percentage of returns since the questionnaires were distributed and collected by the class instructors. The procedures adopted proved effective; 726 questionnaires were returned, 355 questionnaires (about 36%) from the distance learners and 371 questionnaires (about 74.2%) from the on-campus learners.

92.2% of the distance learners were between 24 to 40 years of age. This indicates that most distance learners were adult learners. As for the on-campus learners, 96.2% were 23 and below, which indicates that most on-campus learners were recent school leavers.

Comparison of mean scores of each item, calculation of Cronbach's α reliability coefficients of the NASI scales and comparison of mean scores of the scales were completed using the SPSS (Version 9) statistical package. ANOVA was employed in the comparison of all mean scores.

ANALYSIS OF RESULTS

The mean scores of the study should be interpreted in the following manner:

Mean Score	Meaning
4	Strongly agree
3	Agree
2	Disagree
1	Strongly disagree

Item analysis

An item analysis of mean scores of learners from the two different modes was carried out in the hope of deriving some general trends. In addition, it was undertaken to enable a better understanding of how learners from the two different modes respond to each item individually.

Comparison of mean scores across modes **The mean scores per item of the distance learners and on-campus learners were compared. The results were significant for the items displayed in Table 2.**

SD = Standard Deviation
DLs = distance learners
OCLs = On-campus learners
*** p< 0.05**
**** p< 0.001**
Underlined mean score = higher mean score

Table: 2
Comparison of mean scores per question
of the distance learners and on-campus learners

Scale	Subscale/items	Mean score		SD		F (df)
		DLs	OCLs	DLs	OCLs	
(I) Deep Approach (DA)	Looking for meaning No. 17 I generally put a lot of effort into trying to understand things which initially seem difficult. No. 46 I usually set out to understand for myself the meaning of what we have to learn.	<u>3.30</u> <u>3.35</u>	3.22 3.26	0.56 0.54	0.59 0.54	4.14*(1/723) 4.36*(1/723)
	Active interest/Critical stance No. 2 My main reason for being in university is to learn more about subjects that really interest me. No. 20 I 'm not prepared to accept things I'm told; I have to think them out myself. No. 25 Sometimes I find myself thinking about ideas from the course when I am doing other things.	<u>3.22</u> <u>3.12</u> <u>3.12</u>	2.96 2.90 3.01	0.79 0.60 0.62	0.84 0.64 0.60	18.20**(1/723) 23.13**(1/723) 5.86*(1/722)

	Relating and organising ideas **No. 3** **Ideas in course books or articles often set me off on long chains of thought about what I'm reading.** **No. 38** **I try to relate ideas I come across to other topics or other courses whenever possible.** **No. 44** **When I m working on a new topic, I try to see in my own mind how all the ideas fit together.**	 **3.26** **3.07** **3.12**	 **3.02** **2.95** **2.93**	 **0.59** **0.59** **0.54**	 **0.63** **0.61** **0.57**	 **28.59**(1/724)** **6.79*(1/724)** **20.53**(1/720)**
	Use evidence and logic **No. 12** **I look at the evidence carefully and then try to reach my own conclusions about things I'm studying.** **No. 28** **When I'm reading, I examine the details carefully to see how they fit in with what's being said.** **No. 53** **It's important for me to be able to follow the argument or see the reasoning behind something.**	 **3.34** **3.34** **3.27**	 **3.21** **3.13** **3.17**	 **0.58** **0.55** **0.58**	 **0.56** **0.58** **0.55**	 **9.56*(1/723)** **23.60**(1/724)** **5.48*(1/722)**
(II) Surface Approach (SA)	**Relying on memorising** **No. 4** **The best way for me to understand the meanings of technical terms is to remember the textbook definitions.** **No. 19** **I spend quite a lot of time repeating or copying out things to help me remember them.**	 **2.86** **3.03**	 **2.66** **2.88**	 **0.70** **0.70**	 **0.73** **0.77**	 **13.46**(1/721)** **7.50*(1/724)**
	Unrelatedness **No. 8** **I'm not sure what's important, so I try to get down as much as I can in lectures.**	**2.48**	**2.76**	**0.87**	**0.84**	**19.04**(1/723)**

	Concern about coping **No. 13** **Sometimes I worry about whether I'll be able to cope with the work properly.** **No. 49** **Often I lie awake worrying about work I think I won't be able to do.**	**3.12** **3.02**	**<u>3.29</u>** **<u>3.15</u>**	**0.76** **0.78**	**0.64** **0.74**	**10.66*(1/724)** **5.19*(1/723)**
(III) Strategic Approach (StrA)	**Determination to excel** **No. 14** **I know what I want to get out of this course and I'm determined to achieve it.** **No. 30** **I enjoy competition; I find it stimulating.**	**<u>3.48</u>** **<u>3.17</u>**	**3.32** **3.07**	**0.60** **0.65**	**0.68** **0.67**	**11.28*(1/723)** **4.51*(1/724)**
	Effort in studying **No. 34** **I work hard when I'm studying and generally manage to keep my mind on what I'm doing.**	**<u>3.02</u>**	**2.85**	**0.59**	**0.64**	**14.41**(1/722)**
	Organised studying **No. 22** **I think I'm quite systematic and organised in the way I go about studying.**	**<u>2.89</u>**	**2.59**	**0.72**	**0.71**	**31.94**(1/724)**
	Time Management **No. 18** **I work steadily throughout the course, rather than leaving everything until the last minute.** **No. 43** **I organise my study time carefully to make the best use of it.**	**<u>3.08</u>** **<u>2.95</u>**	**2.77** **2.70**	**0.69** **0.72**	**0.76** **0.69**	**32.58**(1/722)** **23.23**(1/722)**
(IV) Lack of Direction (LOD)	**No. 10** **When I look back, I sometimes wonder why I ever decided to enter the university.** **No. 36** **I think I'm in university more to please other people than because I really wanted it myself.**	**2.07** **1.61**	**<u>2.32</u>** **<u>1.80</u>**	**0.89** **0.76**	**0.95** **0.83**	**14.01**(1/724)** **10.64*(1/723)**

(V) Academic Self-Confidence (ASC)	**No. 33 So far, I seem to have a good grasp of the subjects I'm studying.** **No. 41 I don't usually have much difficulty in making sense of new information or ideas.**	**2.93** **2.57**	**2.74** **2.41**	**0.59** **0.74**	**0.61** **0.66**	**17.82**(1/723)** **9.90*(1/723)**
(VI) Extrinsic Motivation (EM)	**No. 40 I suppose I am more interested in the qualifications I'll get than in the courses I'm taking.**	**2.48**	**2.66**	**0.83**	**0.75**	**8.84*(1/723)**
(VII) Syllabus-Boundedness (SB)	**No. 27 I prefer courses to be clearly structured and highly organised.** **No. 39 I constantly check the course schedule to make sure I am reading what is required of me.** **No. 42 I tend to read very little beyond what's required for completing assignments.**	**3.66** **3.15** **2.43**	**3.48** **2.72** **2.58**	**0.49** **0.62** **0.74**	**0.58** **0.73** **0.76**	**20.28**(1/724)** **71.55**(1/722)** **7.41*(1/722)**

It is possible to observe some general trends from Table: 2. the mean scores of the distance learners for all eleven items in the Deep Approach were significantly higher than the on-campus learners. This strongly suggested that the distance learners utilised more Deep Approach strategies in comparison to the on-campus learners. Regarding the Surface Approach, the mean scores of the on-campus learners were significantly higher than the distance learners for items 8, 13 and 49. The reverse was true for items 4 and 19. An examination of the five items seemed to suggest that more on-campus learners appeared unsure of what was important and seemed not to be coping well. On the other hand, more distance learners seemed to be relying on memorising.

The mean scores of the distance learners were significantly higher than those of the on-campus learners for six items of the Strategic Approach. An examination of these items suggested that the distance learners were more motivated, better organised and able to manage time better.

As for Lack of Direction, the mean scores of the on-campus learners were significantly higher than those of the distance learners for items 10 and 16, which suggested that more on-campus learners were unsure about their intentions for entering university than the distance learners.

As for Academic Self-confidence, the mean scores of the distance learners were significantly higher than those of the on-campus learners for items 33 and 41, which suggested that more distance learners had a good grasp of the subjects they were studying and had less difficulty making sense of new information.

The mean score of the on-campus learners was significantly higher than that of the distance learners for only item 40 from Extrinsic Motivation. This suggested that more on-campus learners were more interested in the qualifications they would be getting than studying for the sake of knowledge.

Finally, for Syllabus-boundedness, the mean scores of the distance learners were significantly higher than those of the on-campus learners for items 27 and 39, which suggested that more distance learners preferred structured and highly organised courses, and were constantly checking to make sure that they were reading within the syllabus. Conversely, the mean score of on-campus learners was higher than that of the distance learners for item 42, which suggested that on-campus learners tended to read very little beyond what was required for completing assignments.

Scale Analysis

Reliability Analysis The Cronbach's α reliability coefficients for the three major scales of NASI were above 0.7, suggesting reliability of classification (Deep Approach =0.78, Surface Approach =0.71 and Strategic Approach =0.79). Reliability coefficients for the four other scales were below 0.7, suggesting a lack of reliability in their classification (Lack of Direction =0.67, Academic Self-Confidence =0.62, Extrinsic Motivation =0.60, and Syllabus Boundedness =0.14). Since this is an exploratory study, reliability coefficient of 0.6 and above is acceptable (as proposed by Entwistle and Ramsden, 1983). Thus, I decided to include for further analysis the results of the three scales with Cronbach's α value of more than 0.6. The scale of Syllabus Boundedness was excluded as its Cronbach's α was too far below the acceptable level.

Comparison of approaches to studying between modes

Table: 3
Mean scores of the distance learners and on-campus learners for the six scales

Scale	Distance learners		On-campus learners	
	Mean	SD	Mean	SD
Deep Approach	3.25	0.34	3.11	0.31
Strategic Approach	3.10	0.36	2.99	0.36
Surface Approach	2.84	0.34	2.88	0.31
Extrinsic Motivation	2.80	0.58	2.86	0.51
Academic-self confidence	2.68	0.47	2.60	0.45
Lack of Direction	1.75	0.60	1.89	0.59

SD = Standard deviation

Table: 3 shows that mean scores for the Deep Approach and the Strategic Approach to studying were much higher for both groups of learners compared to the Surface Approach to studying. The mean scores for the three other categories followed the same order for both groups of learners. The mean scores for Lack of Direction were below 2 for both groups of learners, suggesting that a majority of these learners 'disagreed' with the items in this category. It appears that both groups were not very different with regard to the pattern of approaches to studying preferred.

A comparison of mean scores of learners of the two different modes using ANOVA revealed significant results for the Deep Approach, Strategic Approach, Lack of Direction, Academic Self-Confidence and Extrinsic Motivation. The results showed that the mean scores of the distance learners were significantly higher for the Deep Approach, Strategic Approach and Academic Self-Confidence [p<0.05; F (df) = 37.52 (1/724), 16.42 (1/724), and 7.03 (1/724)] respectively, and significantly lower for Lack of Direction and Extrinsic Motivation than those of on-campus learners [p<0.05; F (df) = 9.40 (1/724), and 4.41 (1/724)] respectively. Thus, it appears that more distance learners responded positively to questions from the Deep Approach, Strategic Approach and Academic Self-Confidence categories than on-campus learners, whereas more on-campus learners scored positively for Extrinsic Motivation and Lack of Direction.

Comparison approaches to studying across disciplines

Table: 4
Mean scores of the distance learners from the three different disciplines

Category	SocSc group		ApplSc group learners		BusAdm group A learners	
	DL Mean(SD) (SD)	OCL Mean(SD)	DL Mean(SD)	OCL Mean(SD)	DL Mean(SD)	OCL Mean(SD)
Deep Approach	3.27(.32)	3.13(.25)	3.20(.33)	3.11(.31)	3.26(.34)	3.10(.33)
Strategic Approach	3.13(.36)	2.96(.34)	3.01(.38)	2.99(.36)	3.10(.34)	3.01(.37)
Surface Approach	2.85(.34)	2.83(.54)	2.79(.32)	2.90(.35)	2.86(.61)	2.93(.48)
Extrinsic Motivation	2.80(.55)	2.82(.36)	2.68(.52)	2.84(.52)	2.85(.36)	2.83(.34)
Academic Self- Confidence	2.77(.46)	2.55(.44)	2.50(.47)	2.56(.45)	2.67(.44)	2.64(.45)
Lack of Direction	1.75(.60)	2.06(.60)	1.77(.59)	1.86(.61)	1.74(.59)	1.82(.57)

SD = Standard deviation
DL = Distance learners
OCL = On-campus learners

A comparison of mean scores across disciplines for distance learners revealed significant results for only Academic Self-Confidence. The mean scores of learners from the SocSc group and BusAdm group were significantly higher than those from the ApplSc group [p<0.05; F (df) = 7.71 (2/344)].

A comparison of mean scores across disciplines for on-campus learners revealed significant results for only the Lack of Direction category. The mean score of learners from the SocSc group was significantly higher than that of the BusAdm group [p<0.05; F (df) = 3.91 (2/366)].

The results suggested that distance learners from the AppSc. Group seemed to be the least confident academically among distance learners from the three disciplines. As for the on-campus learners, the SocSc group seemed to be unsure about the reason why they decided to pursue a university education compared to those from the BusAdm group.

OVERALL DISCUSSION OF RESULTS

Mean score analyses revealed that both the distance learners and the on-campus learners indicated a similar pattern of preferences with regard to the different approaches to studying, irrespective of differences in modes and discipline. These similarities reconfirmed the 'portability' of the ASI from one system to another and strongly suggested that mainstream research literature based on the study of campus-based students would be valid for describing the approaches to studying of Malaysian distance learners.

Mean scores analyses across modes demonstrated that more distance learners utilised Deep Approach techniques in comparison to the on-campus learners. They were also more motivated, committed, systematic, well organised and able to manage time better than the on-campus learners. They also indicated greater confidence academically. These findings are very encouraging in the case of the distance learners. It suggests that the distance learners in the Malaysian context possess more desirable forms of studying/learning behaviour than the on-campus learners. These findings are in keeping with those undertaken in other distance learning contexts (Watkins and Hattie, 1981; Richardson et al., 1999) and contribute to the general belief that these differences are caused by factors related to a difference in age such as differences in level of interest, experience, maturity and self-reliance, which all influence study behaviour. However, a further study along the line of Harper and Kember (1986) should be undertaken to verify this. As for the on-campus learners, their preference for less desirable learning/studying behaviour may be a result of orientations they acquired from the examination-orientated mode of learning and studying in Malaysian schools. There is also a possibility that they entered university not because of a desire to pursue knowledge, but because of other factors, such as pressure from parents and a desire for a better job.

Item analysis revealed evidence of greater reliance on memorisation in the case of the distance learners. This is not necessarily a negative factor. Kember (1996), Watkins (1996) and Thang (2001) (using factor analysis) revealed the pattern of memorisation being used in conjunction with understanding was more prevalent in the distance learners than in the on-campus learners. These findings suggested that it was incorrect to assume that more distance learners were prone towards rote learning than the on-campus learners. In fact, the reverse was possibly more correct. Since a high proportion of the distance learners seemed to use memorisation as a means towards understanding, the proportion of them using it to memorise without understanding was less prevalent than in the case of the on-campus learners. Research by Kember (1996) suggested that the way the curriculum is designed and the way the course is taught can affect the learning approach which students adopt. Thus, if a teacher uses a didactic, spoon-feeding approach which does not encourage students to adopt a Deep Approach or to think critically, his/her students may be orientated to use Surface Approach to learning. In the Malaysian context, the higher proportion of rote learning among the on-campus learners may also be due to the examination-oriented approach and the teacher-centred approach used in schools, which do not give much room for creative and critical thinking.

With regard to Syllabus-boundedness, as discussed earlier, its Cronbach α reliability coefficient was too low for it to be classified as a category and it had to be excluded from the scale analysis. In spite of that, it was possible to obtain some interesting findings from the item analysis. It was found that the distance

learners indicated a higher preference for highly structured courses and diligent checking of course schedules than on-campus learners. These characteristics, I believe, arose from over-anxiety and fear that they had not been studying what was required of them and are also an indication that the course programmes possibly lacked sufficient guidelines and well-planned structures. They might also be aware that they had to take responsibility for following course direction and were anxious not to get it wrong. However, they did not indicate a higher preference for 'reading very little beyond what's required for completing assignments' than on-campus learners, suggesting that they were less likely to display this weakness than on-campus learners.

A comparison of the distance learners from the three disciplines showed that the SocSc and BusAdm groups displayed more desirable approaches to studying than those from the ApplSc group. The results supported Ramsden and Entwistle (1981), as they also found on-campus arts students to be more likely than science students to manifest a Deep Approach and other aspects of Meaning Orientation. But the results contradicted those of Harper and Kember (1986), who found similar results in both distance learning and campus-based students. They did not support those of Morgan et al., (1980) and Richardson et al. (1999). This reaffirmed the general belief that approaches to studying vary with academic context. In the Malaysian context, the results do contribute to the belief that Science Students, due to the nature of the discipline they are studying, tend not to manifest Deep Approaches and critical thinking strategies.

An interesting finding regarding on-campus learners from the SocSc group is that they seemed to be more uncertain about the reasons why they decided to pursue a university education than those from the BusAdm group. This, I believe, can be attributed to the way places are allocated in Malaysian universities. Of the three disciplines, BusAdm is the most popular and SocSc the least popular. Students who do not qualify for the more popular disciplines but who qualify for university admissions will be automatically placed in the Social Sciences. This may explain why more students from the Social Science faculty are uncertain about their goals.

IMPLICATIONS OF FINDINGS

The study revealed that the patterns of preferences of both distance learners and on-campus learners we relatively similar. Thang (2001) in another study on the same population of students found (through factor analysis) that the underlying constructs of both groups of students to be the same. The findings of this study suggests that a possible cause for the differences between distance learners and on-campus learner is factors related to differences in age. Thus, in designing courses for Malaysian distance learners, it is possible to draw upon the extensive literature concerning on-campus learners in the fields of student learning and teaching. Considerations should also be given to the literature on adult learning.

However, the differences in approaches to studying between the learners from the two different modes mean that it would be inadvisable to continue the practice of offering the same courses and using the same materials for both groups of learners. Instead, distance learning programmes should reflect the needs of the distance learners. Since the distance learners are more mature learners capable of utilising effective learning approaches, the courses designed for them should allow greater flexibility in choosing subjects and greater

opportunity to work at their own pace. However, clear guidelines and well-structured programmes should be prioritised to avoid insecurity arising from uncertainty about what is expected of them.

Courses offered should also be innovative and encourage critical thinking. Research has also shown that Asian students are receptive to innovative programmes (Kember and Gow, 1992; Kember and McKay, 1996; Kember et al., 1997). Thus, although research has shown that memorisation with understanding is not a negative thing, it is still beneficial to introduce such programmes as that will enable students to enjoy learning more. Instances of rote learning will also be reduced as students learn more effective ways of learning. The need for innovative courses is particularly vital in the case of learners from the ApplSc group. Since there is some evidence that they tend to adopt less desirable approaches to studying and studying, it is essential to expose them to more materials that encourage them to think critically.

BIODATA AND CONTACT ADDRESSES OF AUTHOR

Thang Siew Ming isLecturer in Universiti Kebangsaan Malaysia (UKM). Her interest areas are learner autonomy, learning processes (inc. learning styles and approaches to learning), distance language learning and online language learning. She completed her BA (Hons) in English Literature, Universiti Malaya in 1984 and MA in English Language Studies, Universiti Kebangsaan Malaysia in 1995. She became Dr. with her entitled thesis, "Investigating Malaysian ESL learners' processes of learning and perceptions of courses" in the School of Education, UK, University of Nottingham.

Siew Ming Thang
School of Language Studies and Linguistics
Faculty of Social Sciences and Humanities
Universiti Kebangsaan Malaysia
Email: thang@pkrisc.cc.ukm.my

REFERENCES

Abdul Rahman, Z. (1994) ***Factors related to completion of distance education courses in the off-campus degree program at University Sains Malaysia.*** **Unpublished Degree of Doctor of Education, (Carolina State University, North Carolina).**

Alsagoff, S. A. (1985) ***A study of learning styles, student characteristics and faculty perceptions of the distance education programme at USM.*** **Unpublished Dissertation, (University of Washington, Washington).**

Atan, H., Jaafar I., Guan, S.K., Azli, N.A., Rahman, Z.A. & Idrus, R.M. (2003) Self-transitional characteristic of Distance Education learners: A case study of three Malaysian Universities. ***Turkish Online Journal of Distance Education*****, 4(4). Http://www.tojde.anadolu.edu.tr**

Biggs, J. (1979) Individual differences in study processes and the quality of learning. ***Higher Education*****,** ***8*****, pp. 381-394.**

Entwistle, N. J., & Ramsden, P. (1983) *Understanding student learning*. (London, Croom Helm Ltd).

Entwistle, N. J., & Tait, H. (1994) *The revised approach to studying inventory*. (Edinburgh, University of Edinburgh, Centre for Research into Learning and Instruction).

Harper, G., & Kember, D. (1986) Approaches to study of distance education students. *British Journal of Educational Technology, 17*(3), pp. 212-222.

Kember, D. (1996) The intention to both memorise and understand: Another approach to learning? *Higher Education, 31*, pp. 341-351.

Kember, D. & Gow, L. (1992). Action research as a form of staff development in higher education. Higher Educatiopn, 23(3), pp. 297-310.

Kember, D. & McKay, J. (1996). Action research into the quality of student learning: A paradigm for faculty development. *Journal of Higher Education*, (65)5, pp. 528-554.

Kember, D., Wong, A. & Leung, D.Y.P. (1999). Reconsidering the dimensions of approaches to learning. British Journal of Educational Psychology, 69, pp. 323-343.

Mohammed , N. (1999) *The effectiveness of the distance education programme in MARA Institute of Technology (*Cardiff University, Cardiff).

Morgan, A., Gibbs, G., & Taylor, E. (1980) *Students' approaches to studying. The Social Science and Technology foundation courses: Preliminary studies* (Study Methods Group Reports IET-SMG-4) (Milton Keynes, The Open University).

Nie, N. J., Hull, C. H., Jenkins, J. G., Steinbrenner, K., & Bent, D. H. (1975) *Statistical package for the social sciences (2nd Edition)*. (New York, McGraw-Hill).

Ramsden, P., & Entwistle, N. J. (1981) Effects of academic departments on students' approaches to studying. *British Journal of Education Psychology, 51*, pp.368-383.

Richardson, J. T. E., Morgan, A., & Woodley, A. (1999). Approaches to studying in distance education. *Higher Education, 37*, pp.23-55.

Schmeck, R. R., Ribich, F., & Ramanaiah, N. (1977) Development of a self -report inventory for assessing individual differences in learning processes. *Applied Psychological Measurement* 1, pp. 413-431.

Thang, S. M. (2001) *Malaysian learners' conceptions of their learning processes and their perceptions of their English as a Second Language courses in a tertiary distance learning context.* Unpublished PhD thesis (University of Nottingham, Nottingham).

Universiti Sains Malaysia. (1993) *Conference in distance education*. (Pulau Pinang, Universiti Sains Malaysia).

Watkins, D. (1983) Assessing tertiary study processes. *Human Learning, 2*, pp. 29-37.

Watkins, D. (1996) Hong Kong secondary school learners: A developmental perspective, in: D. Watkins & J. B. Biggs (Eds.), *The Chinese learner: Cultural, psychological and contextual influences* (Hong Kong, Australian Council for Educational Research and the Comparative Educational Research Centre, University of Hong Kong).

Watkins, D., & Hattie, J. (1981) The learning process of Australian University students: Investigation of contextual and psychological factors. *British Journal of Educational Psychology, 51*, pp. 384-393.