Investigating Malaysian Distance Learners' Conceptions of Their Learning Styles In Learning English

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Abstract

Research into the effectiveness of distance learning content courses has been undertaken in the Malaysian context, but so far, very little research has been carried out on distance language learning courses. This study is an attempt to rectify the lack of research into the learning needs of Malaysian distance language learners. The paper investigates the conceptions of learning styles in learning English as a Second Language (ESL) of Malaysian distance learners of a dual-mode public university. It attempts to provide insights that will help in designing a more appropriate ESL programme for these students and, possibly, for others in similar contexts.

Willing's questionnaire that drew upon the work of Witkin and Goodenough (1981) and Kolb's model (1976) was used in this study. Factor analysis completed with the use of SPSS (Version 9) was used to identify learning styles groups. The influences of the differences in modes and proficiency levels on the characteristics of the members of each 'learning style group' were studied statistically. The main finding was that the distance learners, especially High Proficiency Learners, seemed more oriented to learning English independently than the on-campus learners. This was attributed to the inclination among more 'mobile' learners (both on-campus and distance learners) to opt for learning styles they considered more appropriate to their mode of learning.

Introduction

A review of literature on distance education in Malaysia (see Alsagoff, 1985; USM, 1993; Abdul Rahman, 1994; Mohammed, 1999) and my personal observation of the situation have revealed that insufficient attention has been given to the needs of distance learners in Malaysian public universities which offer both on-campus and distance learning courses, particularly in the learning of English as a Second Language (ESL). They also indicate a general assumption that there is no difference between the learning of English and the learning of a content course. Hence, the same facilities and the support are given to them. Finally, they demonstrate a lack of published research on the needs of distance learners in Malaysia, particularly those studying English.

This study seeks to rectify this by investigating the learning styles of Malaysian distance learners studying at a public university in Malaysia, namely, Universiti Kebangsaan Malaysia (UKM) (National University of Malaysia). This is done by identifying their learning style groups by using a framework derived from Willing (1988). The findings of this study will provide insights that will help in designing a more appropriate ESL programme for UKM distance learners. On-campus learners were included in the study to allow a comparison to be made between the two groups of learners.

Definitions of learning style

Elements of learning style appeared in the research literature as early as 1892, but most of the earlier research (before 1940) was more interested in the relationship between memory and oral or visual teaching methods (Keefe, 1987). The present day notion of 'learning style' was developed more recently than that of 'cognitive style'. Cognitive style and learning style have often been used synonymously but they are not the same. According to Keefe (1987), learning style is the broader term and includes cognitive along with affective and physiological styles. Keefe (1987) defined learning style as:

> characteristic cognitive, affective, and psychological behaviours that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment.
>
> (Keefe, 1987:5)

There are many other definitions of learning styles. Garger and Guild (1984) defined learning styles as "stable and pervasive characteristics of an individual, expressed through the interaction of one's behaviours and personality as one approaches a learning task" (p. 11). Claxton and Murrell (1987) came up with an intriguing way of defining learning styles. They used an onion metaphor (adapted from Curry, 1983) in which layers of the onion represent 'layers' of learning style:

• Basic personality characteristics form the core;
• Information-processing characteristics form the second layer;
• Social interaction characteristics form a third layer;
• Instructional preferences form the fourth and outermost layer.

They postulated that the core of the onion represents the most stable characteristics with each successive layer being progressively more amenable to change. There is no generally agreed-upon definition for learning style, although the idea of pervasiveness or consistency seems to be a common theme. For this study, Keefe's definition will be taken as the guideline and the dimensions of cognitive styles, sensory/perceptual styles and affective styles will be investigated.

Definitions of Keefe's key dimensions of learning styles

Cognitive styles

According to Willing (1988), when applied to teaching, many of the differences explored in cognitive styles research, and a number of other constructs (all usually

conceived as polarities), have been crystallised into single bi-polar model of cognitive style, with scales running from simultaneous/synthetic to sequential/successive processing (Das et al., 1975); from holist to serialist (Pask, 1976a; 1976b); from impulsive-global to analytic-reflective (Zelinker and Jeffrey, 1976); and from holistic to analytical (Harnett, 1981). The formulation that has received the most research attention is the field dependence-field independence construct (Willing, 1988; Skehan, 1998) and for this reason, this is the construct that is adopted for this study.

Sensory/Perceptual styles

This has frequently been classified under cognitive style. It refers to an individual's consistencies in relying upon the different sensory modalities available for experiencing the world (Messick, 1976). The three major sensory modes for interacting with the environment and organising information are the kinesthetic (leading to what has been sometimes called physical or motoric thinking), the visual (leading to figural or spatial thinking) and the auditory (leading to verbal thinking). Research has shown that although in adults all three modalities can function in parallel, individuals differ markedly in their preferred reliance upon one or another of these three sensory modes. More recently, there has been much research on the relationship between sensory preferences and variations in learning proficiency and it is found that in some context, the preferred or favoured sense may not be necessarily the one which most efficiently receives or processes information (Willing, 1988).

Reid (1987) was one of the first researchers who focused on sensory mode preference when investigating the learning style preferences of ESL students. She developed the Perceptual Learning Style Preference Survey (PLSPS) which comprises a questionnaire that allows ESL students to self-identify their preferred perceptual learning styles from six categories: visual, auditory, kinesthetic, tactile, group, and individual learning. Since her investigation, many teacher-researchers have used her PLSPS to help their students identify their individual perceptual learning styles.

Affective styles

The 'affective domain' refers to the emotional side of human behaviour, and it may, thus, be contrasted with the concept of cognitive style. The development of affective states or feelings involves a variety of personality factors as well as feelings, both about ourselves and about others with whom we come into contact. It includes feelings of self-esteem, fear, respect for authority, need for status and comfort, inhibition, risk-taking, anxiety, empathy and motivation, (Smith, 1982; Ferro, 1993 ; Brown, 1987).

Willing (1988) pointed out that it is important to distinguish between affective factors influencing the person's level of achievement, and those same factors considered as components of style. He further added that there is a bias towards research focusing on the former. Some of these studies include Gardner and Lambert's study (1985), Gardner (1985) and Naiman et al.'s study (1975). Willing strongly felt that there was a need for the integration of basic data from personality psychology into a learning style model and in his opinion Kolb's model came closest to this. This led to his decision to base his FI/FD construct on Kolb's model. Willing's theoretical construct is adopted

for this study because it takes into consideration the dimensions of learning styles that I am interested to investigate in this study.

Willing's construct (1988) on learning styles

Willing's learning style construct drew upon the work of Witkin and Goodenough (1981), and Kolb's (1976) learning style model. He described his construct as following Witkin and Goodenough's (1981) conceptualisation: autonomy of external referents in perceptual and social behaviour. He described Kolb's as an interaction between two dimensions which he interpreted as: (a) cognitive style and (b) all other personality factors, grouped into a single scale (Willing, 1988). He considered the Kolb's abstract-concrete dimensions as a scale that closely resembles the FD/FI continuum. He equated Kolb's abstract conceptualisation to an 'analytical' style of cognition and his concrete experience to the holistic, direct, relatively undifferentiating style of cognition. He suggested that Kolb's other dimension of active versus reflective would correspond to a personality factor of active versus passive. He surmised that this scale could be used to summarise a number of different personality constructs, such as introversion/extraversion, autonomous/dependent, and the like (Willing, 1988).

Based on his empirical study with learners of English within the Adult Migrant Service in Australia, he was able to come up with four principal 'factors' using factor analysis. He labelled them as 'analytical', 'authority-oriented', 'communicative' and 'concrete' learners. See Fig.1 for the characteristics and description of these learning style groups.

Characteristics of learning style group	Willing's description of group
Analytical learners (active with field independent tendency) • I like to study grammar. • I like to learn by studying English books at home. • I like to study English by myself (alone). • I like the teacher to let me find my mistakes. • I like the teacher to give us problems to work on. • I like to learn by reading newspaper etc. at home.	These people's cognitive strengths lead them not only to analyse carefully and show great interest in structure, but also to put a great deal of value on showing their independence by doing these things themselves, autonomously (Willing: 155).
Authority-oriented learners (Passive with field independent/field dependent tendency) • I like the teacher to explain everything. • I like to write everything in a notebook. • I like to have my own textbooks. • I like to learn by reading. • I like to study grammar. • I like to learn English words by seeing them.	These people are probably not predisposed to actively organise information, they probably perceive that they need the teacher's direction in the provision of explanations, patterns to follow (Willing: 159-161).

Communicative learners (active with field dependent/field independent tendency) • I like to learn by watching, listening to Australians. • I like to learn by talking to friends in English. • I like to learn by watching TV in English at home. • I like to learn by using English in shops/CES/trains. • I like to learn English words by hearing them. • I like to learn by conversations.	This group has "a desire for a communicative and social learning approach, probably because they feel that this would be most useful for their needs in relation to language learning" (Willing: 159).
Concrete learners (passive with field dependent tendency) • I like to learn by games in class. • I like to learn by pictures, films, and videos in class. • I like to learn English by talking in pairs • I like to learn by using cassettes at home. • I like to listen and use cassettes in class. • I like to go out with the class to practice English	These people use very direct means of taking in and processing information ('Absorption'). They are also people-oriented, though in a spontaneous, unpremeditated way (e.g. 'games,' 'excursions' or in close interaction (e.g. 'pairs'), not in terms of organized, pointed class 'conversation' (Willing: 155).

Fig. 1 Characteristics and description of learning style groups (Willing, 1988: 156 – 162)

As pointed out by Skehan (1998), these sketches of the four learner types are not representative of 'real people' in the sense that most learners do not fall neatly into a specific quadrant. As shown by Willing (and other researchers too), learners do manifest certain groups of characteristics more than others, and thus it is reasonable to describe learners as belonging to a particular category. By doing so, it will enable us to make reasonable predictions of learners' performances under certain conditions. Take for example in the context of distance learning, it is reasonable to assume that 'analytical' learners will perform better because they possess qualities appropriate for this context, such as independence and ability to work well on their own. On the other hand, 'authority-oriented' learners may find it difficult to learn through this mode, as they will miss the constant attention of an authority figure.

Related research study

To my best knowledge, there is only one study on the learning styles of distance language learners. Oxford et al. (1993), in their study investigated the perceptual learning styles of American high school students learning Japanese as a foreign language via satellite. They predicted that the key styles relevant to distance education by satellite were sensory preferences i.e. visual vs. auditory vs. hands-on or haptic (tactic and kinesthetic). Their findings supported their prediction. They found that

although auditory students were more motivated than visual students, nevertheless visual students significantly outperformed auditory students and hands-on (tactile/kinesthetic) students in achievement. Their findings suggested that visual learners would be more successful at learning a foreign language via satellite. Does that mean that visual learners are in general more successful at learning a second/foreign language at a distance? I do not believe so. Learning a language involves not only the perceptual senses. To undertake a through investigation of learning styles, other factors such as cognitive factors and personality factors have to be taken into consideration. Willing's psychological model of learning styles takes into account the major factors involved. This is another reason for choosing his questionnaire and his model of learning styles for this study.

Setting of the study

This study was undertaken in UKM, one of the eight public universities in Malaysia. It was the first Malay medium university in Malaysia. Thus, there has always been an awareness of the need to improve its students' proficiency in English. The English proficiency programme offered has undergone some changes. The courses offered from 1997 to 1999 were of two types: General English Proficiency courses and Higher Level English courses. The higher level courses consisted mainly of English for Specific Purposes (ESP) courses and advanced level courses such as Critical thinking, Interactive Reading, Speech Communication, Public speaking and Writing Skill). Students were placed in the various courses according to their level of proficiency.

However, beginning from the 2000/2001 session, the General English Proficiency courses were phased out. The new batch of students was admitted directly into the ESP courses. The main reason given for this move was that it was felt that the newly-implemented Malaysian University Entrance Exam (MUET) would be able to ensure that only students with the necessary qualifications in English be admitted into UKM.

The English proficiency courses offered to on-campus learners and to distance learners by UKM were similar in nature. However, some modifications were made in the mode of delivery and the materials provided to the students. The 'wrapped-around approach', proposed by Rowntree (1992), which is a midway compromise solution in that it does not involve producing materials from scratch nor transforming existing materials, was used in preparing the materials for these courses. In addition, the formal assessment process was slightly different. In the case of on-campus learners, they had to sit two examinations i.e. a mid-semester exam and a final exam, whereas distance learners had to sit only a final exam. This was because it was not economical to conduct two formal assessments for the distance learners. The distance learners were provided mainly print materials and cassettes. The print materials comprised a study guide (which consisted of modules) to be used together with the textbook. It included materials (instructions and activities) designed to guide the students in the using of the textbook. Plans to incorporate other methods of student support in the form of more advanced means of communicating information and tutoring and more support facilities, such as resource centres and counselling, had been discussed but not implemented.

Research design

Research questions

The study seeks answers to the following research questions
(1)Are the Malaysian ESL distance learners' conceptions of their learning styles in learning English different from those of the Malaysian ESL on-campus learners and, if yes, in what ways?

(2) Are the following categories of Malaysian ESL distance learners' conceptions of their learning styles in learning English different from each other and, if yes, in what ways?
(i) Low Proficiency (LP) students
(ii) Average Proficiency (AP) students
(iii) High Proficiency (HP) students

(3) Are the following categories of Malaysian ESL on-campus learners' conceptions of their learning styles in learning English different from each other and, if yes, in what ways?
(i) Low Proficiency (LP) students
(ii) Average Proficiency (AP) students
(iii) High Proficiency (HP) students

(4) Are there any differences between (2) and (3)? If so, what are they?

(5) What are the implications of the above findings for the teaching and learning of English in an ESL distance learning context?

Research instrument

The questionnaire used comprised the first 30 items on learning styles of Willing's questionnaire, with some modifications to render it more appropriate for this study (see Appendix A for a copy of the questionnaire). The questionnaire was translated into Malay to avoid the problem of students not understanding the questions due to lack of proficiency in English. The questions belong to the following six categories:

(1) different sorts of ('classroom') activities (Questions 1 to 7);
(2) different modes of teacher behaviour (Questions 8 to 12);
(3) different ways of being grouped for learning activities (Questions 13 to 17);
(4) different aspects of language which need emphasis (Questions 18 to 20);
(5) different sensory-modality preferences (Questions 21 to 23);
(6) different modes of learning on one's own outside class (Questions 24 to 30);

Sample population

The questionnaire was distributed randomly to 1000 first- and second-year distance learners who had just completed their first English Proficiency Course (EPC). As for the on-campus learners, the questionnaires were distributed randomly to 500 first-year first semester students, as this was the group comprising the most number of students taking the designated EPCs for the first time. The reason why I distributed such a

large number of questionnaires to the distance learners was because I had no way of ensuring that they would return the questionnaires. This was not a problem with on-campus learners as the questionnaires were distributed and collected by their class instructors. The students were classified into three categories. Category I: Low Proficiency (LP) Learners – those who obtained Credit 5, Credit 6, Pass 7, Pass 8 and Fail 9 in English in their Sijil Peperiksaan Malaysia (SPM) (Malaysian Certificate of Education), Category II: Average Proficiency (AP) Learners – those who obtained Credits 3 and 4 in English in their SPM and Category III: High Proficiency (HP) Learners – those who obtained Distinctions 1 and 2 in English in their SPM.

Research procedures

The questionnaires were distributed towards the end of the second semester. The procedures adopted proved effective. Out of the remaining 734 completed questionnaires returned, 378 questionnaires (about 36%) were from the distance learners and 356 questionnaires (about 76%) were from the on-campus learners. These included those with year or proficiency level missing. The breakdown of respondents according to proficiency levels is as follows:

Distance learners: LP (180); AP (89); P (46)
On-campus learners: LP (120); AP (134); HP (116)

Statistical Procedures

Factor analysis and estimates of reliability (internal consistency and stability) were completed using SPSS (Version 9) statistical package. The 'factor analysis' procedure was adopted from Willing's study (1988). This procedure was used to identify sets of responses, which have a high correlation with each other. The procedure involved was purely mathematical, that is, there was no preconceived pattern, which the analysis was attempting to find. Instead, it sorted through the possible combinations or responses across all cases studied in order to discover whether there were any combinations of questions whose response-levels consistently tended to move in parallel. If such a set or sets were discovered in the data for this survey, it would then be necessary to examine the particular issues involved, in order to see whether those sets appeared to have any coherent 'meaning' in recognisable cognitive style or learning style terms. Then, the mean score of each subject's response to the items listed in each factor was calculated. The factor that yielded the highest mean score was then considered the predominant style for that person. The characteristics of the members of each 'group' were then studied (Willing. 1988).

In addition, Willing's hypothesis, which proposes the presence of certain learning orientations, or styles, which resemble the field/field dependent construct, was also tested. After identifying the various types of learning styles, the learning style groups of the ESL distance learners' and ESL on-campus learners' (of three different proficiency levels) were compared.
This was undertaken by calculating the percentage of learners that belonged to each learning styles group in relationship to differences in modes and proficiency levels.

Using factor analysis to identify learning style groups

Exploratory factor analysis was used. Principal components factor analysis of the thirty items was carried out (with SPSS 9.0 programme) on the distance learners and the on-campus learners separately to enable a comparison of factors between the two modes of learners. The varimax ® (orthogonal) rotation and Kaiser normalisation (Nunnaly, 1978; Kim and Mueller, 1978) procedure was used. It yielded a nine-factor solution, which accounted for 62.85% of the variance in the distance learners and 58.69% of the variance in the on-campus learners. However, I was not able to find any coherent pattern through analysis of the items in the nine factors of both the distance learners and the on-campus learners. The Scree Test (proposed by Cattel, 1966) suggested the possibility of ignoring the five lower factors, as they appeared to be levelling off with the lower components. In view of that, I decided to limit the factors to four (like Willing) and performed principal components factor analysis again. This time I obtained a four-factor solution with an explained variance of 42.84% for the distance learners and 39.25 % for the on-campus learners. To decrease cross-loadings and to increase efficiency from these results, all items that loaded below 0.3 were deleted. In cases where there were cross-loadings of items between factors, the lower loadings were automatically deleted. Finally, any loading of below 0.4 was deleted. The patterns that emerged were very interesting. Some were similar to that of Willing's and some were not. Fig.2 and Fig.3 compare the factors of the distance learners and the on-campus learners.

Items/Questions	Factor 1		Factor II	
	Distance learners	On-campus learners	Distance learners	On-campus learners
Percentage of variance accounted for by this factor	15.10%	12.83%	13.23%	9.22%
14. I like to learn English by talking in pairs.		0.60		
17. I like to go out with the class and practise speaking in English.	0.52	0.68		
18. I like to study grammar.	0.46	0.42		
19. I like to learn many new words.	0.64	0.50		
20. I like to practice the sounds and pronunciation of English words.	0.62	0.44		
24. At home, I like to learn by reading newspapers, etc.	0.70	0.42		
25. At home, I like to learn by watching TV in English.	0.59			
27. At home, I like to learn by studying English books.	0.59			
28. I like to learn English by talking to friends.	0.61	0.74		
30. I like to learn English by using it in my	0.64	0.74		

daily life.					
3. In English class, I like to learn by taking part in activities.				0.65	0.68
4. In English class, I like to learn by taking part in conversations and discussions.				0.69	
8. I like the teacher to explain everything to us.				0.40	
10.I like the teacher to ask me to talk about my interest.				0.51	
11. I like the teacher to tell me all my mistake.				0.49	
13. I like to study English on my own				-0.40	-0.59
14.I like to learn English by talking in pairs				0.55	
15. I like to learn English in a small group.				0.68	0.60
16.I like to learn English with the whole class.					0.40
23. I like to learn English by participating in related activities.				0.54	0.62

Fig.2 A comparison of Factor I and Factor II of the distance learners and the on-campus learners

Items/Questions	Factor III of the distance learners	Factor IV of the on-campus learners	Factor IV of the distance learners	Factor III of the on-campus learners
Percentage of variance accounted for by this factor	7.42	8.07%	7.10%	9.12%
1.In English class, I like to learn by reading.	0.51	0.43		
6. In English class, I like to learn by taking down notes.	0.70	0.66		
7.In English class, I like to learn by listening to lectures.	0.69	0.47		
8. I like the teacher to explain everything.		0.61		
9. I like the teacher to give us problems to work on.		0.52		
11. I like the teacher to tell me all my mistakes.		0.52		
13. I like to study English on my own.	0.48			

2. In English class, I like to learn by listening to cassettes.			0.51	0.58
5. In English class, I like to learn by viewing pictures, films and videos.			0.66	0.46
21. I like to learn words by seeing them.			0.56	0.55
22. I like to learn English words by hearing them.			0.43	0.57
25. At home, I like to learn by watching TV in English.				0.57
26.At home, I like to learn by listening to cassettes			0.48	0.69

Fig. 3 A comparison of Factor III and Factor IV of the distance learners and the on-campus learners

Willing's in his study was able to identify two 'pure' groups i.e., field dependent in the classic sense, which he called 'concrete learners', and field independent in the classic sense, which he called 'analytical learners'. In this study, there appeared to be no 'pure' groups. However, I was able to identify two common factors between the distance learners and the on-campus learners. Factor I of the distance learners was found to be similar to Factor I of the on-campus learners, and Factor IV of the distance learners was found to be similar to Factor III of the on-campus learners. To standardise the items in these common factors, items that were not common to both groups of learners were eliminated. Thus, items 25 and 27 were eliminated from Factor I of the distance learners, and item 14 from Factor I of the on-campus learners. Similarly, item 25 was eliminated from Factor III of the on-campus learners.

A comparison of the factors of the distance learners and the on-campus learners with those of Willing's was then undertaken and the following learning styles were identified from this study:

The distance learners

Factor I	'Analytical-communicative learning style' (Common Factor I)
Factor II	'Communicative-authority-oriented learning style'
Factor III	'Pseudo-authority-oriented learning style'
Factor IV	'Pseudo-concrete learning style' (Common Factor II)

The on-campus learners
Factor I	'Analytical-communicative learning style' (Common Factor I)
Factor II	'Communicative learning style'
Factor III	'Pseudo-concrete learning style' (Common Factor II)
Factor IV	'Authority-oriented learning style'

Reliability

Cronbach's µ reliability coefficient was used to check the internal consistency of the items in each factor. For the distance learners, Factor I had a standardised µ coefficient of 0.82, Factor II, 0.76, Factor III, 0.56, Factor IV, 0.66. As for the on-campus learners, Factor I had a standardised µ coefficient of 0.77, Factor II, 0.67, Factor III, 0.62, Factor IV, 0.60. Although the internal consistency of five factors were below 0.7 (the normally accepted required level), they were considered 'reliable' since this is an exploratory study (as proposed by Entwistle and Ramsden, 1983) and since some of these factors have only four variables

Description of the factors

The discovery of factors which represent certain learning orientations or styles which resemble the field independence/field dependence construct confirms Willing's hypothesis. However, as pointed out earlier the patterns in these factors differ from that of Willing in many aspects. In this section, I will first describe the two common factors. Common Factor I is a more important factor as it accounted for a high proportion of the variance. It possesses characteristics of Willing's 'analytical/FI learning style' i.e., (1) interest in studying grammar structures, (2) interest in learning the rules of the language which includes learning meanings of new words and sounds, and pronunciation of words and (3) desire to learn the language alone at home, through reading newspapers. However, Common factor I differs from Willing's and Kolb's analytical learning style in that characteristics of 'communicative'/FD learning style are also present i.e., (1) interest in going out and practise speaking English (2) interest in talking to friends in English and (3) interest in using English in their daily life. Thus, I think it is appropriate to describe learners displaying pattern of common Factor I as 'analytical-communicative learners' (with active FI/FD tendency)

Willing (1988) described his 'communicative learners' as "people who in fact have a field independent tendency, but who indicate a desire for a communicative and social learning approach, probably in part because they feel that this would be most useful for their needs in relation to language learning" (p.159). He viewed them as such because he felt that "'there can be a certain self-directedness involved in deliberately using interactions for learning purposes" (Willing, 1988: 159). Personally, I feel it is more appropriate to use his description for my 'analytical-communicative learners' because his 'communicative learners' do not display clear FI tendency. Thus, in my opinion, the 'analytical-communicative learners' are actually FI learners, but are indicating a desire to communicate socially in English, as they know that they cannot learn a language without actively interacting in it. In my opinion, 'analytical-communicative learners' have the potential to be successful in learning a language at a distance since they have the advantage of being able to learn well independently. They will enjoy the freedom of planning their own schedule, working at their own pace and learning in self-access centres. To make up for lack of classroom interaction they will make use of opportunities in their daily life to communicate in English.

As for common Factor II, it possesses characteristics of Willing's 'concrete learning style', i.e., (1) preferring very direct means of taking in and processing information, such as, listening to spoken English through cassettes in and out of class and (2) viewing pictures, films and videos. However, the similarities end there. Willing's

'concrete learning style' includes spontaneous, unpremeditated, people-oriented characteristics, such as interest in learning through games, excursions, or close interactions, and not in terms of organised pointed class 'conversation'. These 'classic' FD characteristic are not evident in common Factor II. Instead common Factor II possesses FI characteristics i.e., preferences towards learning English words by seeing them and hearing them. Thus, it is obvious that common Factor II is different from Willing's 'concrete learning style' although it manifests some similar basic characteristics. Thus, I believe it is appropriate to call learners preferring this pattern of behaviour 'pseudo-concrete learners' (with passive FI/FD tendency). In my opinion, distance learners preferring this pattern of behaviour are at an advantage learning at a distance since they enjoy visual and auditory activities which are significant components of the distance learning mode. But, they may have problem with the oral aspect of language learning.

Next, I will now discuss Factor II of the distance learners and the on-campus learners together, then Factor III of the distance learners and Factor IV of on-campus learners together. Factor II of the distance learners display characteristics of Willing's 'communicative learning style'. These students enjoy learning through activities, conversations, discussions, pair work and group work. In addition, it also possesses characteristics of Willing's 'authority-oriented learning style'. The students like teachers to explain everything, ask them to talk about their interest and tell them their mistakes. However, this factor does not possess the structural characteristics of Willing's 'authority-oriented learning style' i.e., (1) interest in learning by reading, (2) interest in studying grammar, and (3) interest in learning English words by seeing them. Thus, learners inclined to this factor can be described as 'communicative-authority-oriented learners' (with passive/active FD tendency).

In my opinion, 'communicative-authority-oriented distance learners' will have most difficulty in coping with studying English at a distance. Their desire for classroom interactions and teachers' attention suggest that they will be quite lost and insecure learning on their own. Unless they are able to adjust to the situation, they will most probably not be able to perform well in their attempt to learn a language through this mode.

Factor II of the on-campus learners displays characteristics of the 'communicative' component of Factor II of the distance learners without the 'authority-oriented' component. Learners manifesting this pattern are similar to Willing's 'communicative learners in certain ways. However, they do not display any FI tendency. I think it is still appropriate to call them 'communicative learners' (with active FD tendency). In my opinion, these learners will enjoy learning English through classroom interactions.

Factor III of the distance learners displays structural characteristics that are similar to Willing's 'authority-oriented learning style' i.e., preferring to learn (1) by reading, (2) by taking down notes and (3) by listening to lectures. However, it does not display characteristics that indicate a need for teacher's direction. Instead, the factor has an item that indicates a desire to study English alone. I think it is suitable to designate learners belonging to this group as 'pseudo-authority-oriented learners' (with passive FI/FD tendency) to differentiate them from Factor IV of the on-campus learners, who

are real 'authority-oriented learners' (with passive FI/FD tendency) and who have characteristics similar to Willing's 'authority-oriented learners'.
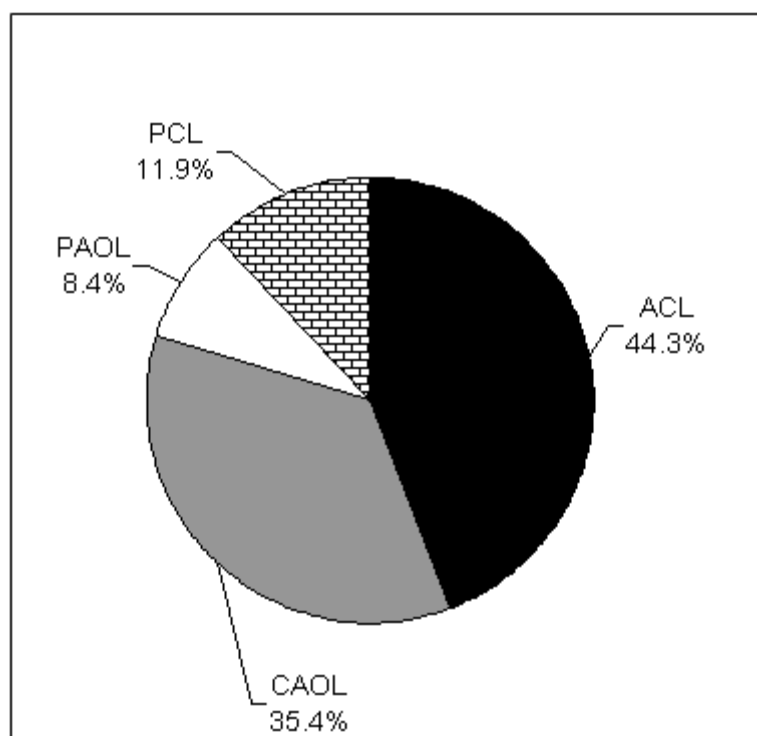
In my opinion, 'pseudo-authority-oriented distance learners' will be able to handle the reading and written component of language learning quite effectively but will have difficulty with the spoken component of language learning, as they do not express any desire to communicate in the language. 'Authority-oriented on-campus learners' will not face many problems considering they have regular contact with their language teachers, which they desire. The characteristics of the various learning style groups are summarised in Fig. 4. As pointed out earlier, these sketches do not represent 'real people' in the sense that most learners do not fall neatly into a specific quadrant instead they manifest a continuum of FI-FD/ active-passive characteristics (Skehan, 1998). However, they do manifest certain groups of characteristics more than others, thus it is reasonable to describe learners as belonging to a particular category.

Characteristics of learning style groups:		Similarities and Differences between groups (if any)
of the distance learners	of the on-campus learners	
(I)'analytical-communicative learners' • I like to study grammar. • I like to learn many new words. • I like to practice the sounds and pronunciation of English words. • At home, I like to learn by reading newspapers, etc. • I like to go out with the class and practise speaking in English. • I like to learn English by talking to friends. • I like to learn English by using it in my daily life.	(I) 'analytical-communicative learners' Same as the distance learners	Both groups are analytical in nature. They desire outside classroom interaction to improve their ability to communicate in English.
(II) 'communicative-authority-oriented learners' • In English class, I like to learn by taking part in activities. • In English class, I like to learn by taking part in conversations and discussions. • I don't like to study English on my own • I like to learn English by talking in pairs • I like to learn English in a small group.	(II) 'communicative learners' • In English class, I like to learn by taking part in activities. • I don't like to study English on my own. • I like to learn English in a small group. • I like to learn English with the whole class. • I like to learn English by participating in related activities.	Both groups desire classroom interactions. However, the distance learners desire teachers' directions and guidance whereas the on-campus learners do not.

• I like to learn English by participating in related activities. • I like the teacher to explain everything to us. • I like the teacher to ask me to talk about my interest. • I like the teacher to tell me all my mistakes.		
(III) 'pseudo-authority-oriented learners' • In English class, I like to learn by reading. • In English class, I like to learn by taking down notes. • In English class, I like to learn by listening to lectures. • I like to study English on my own.	(IV) 'authority-oriented learners' • In English class, I like to learn by reading. • In English class, I like to learn by taking down notes. • In English class, I like to learn by listening to lectures. • I like the teacher to explain everything. • I like the teacher to give us problems to work on. • I like the teacher to tell me all my mistakes.	Both groups like to learn passively in a classroom environment. The on-campus learners like teachers' guidance and directions whereas the distance learners like to learn on their own.
(IV) 'pseudo-concrete learners' • In English class, I like to learn by listening to cassettes. • In English class, I like to learn by viewing pictures, films and videos. • I like to learn words by seeing them. • I like to learn English words by hearing them. • At home, I like to learn by listening to cassettes	(III) 'pseudo-concrete learners' Same as the distance learners	Both groups like audio-visual learning.

Fig. 4 Characteristics of the various learning style groups

The learning style groups of distance learners

ACL   = Analytical communicative learners
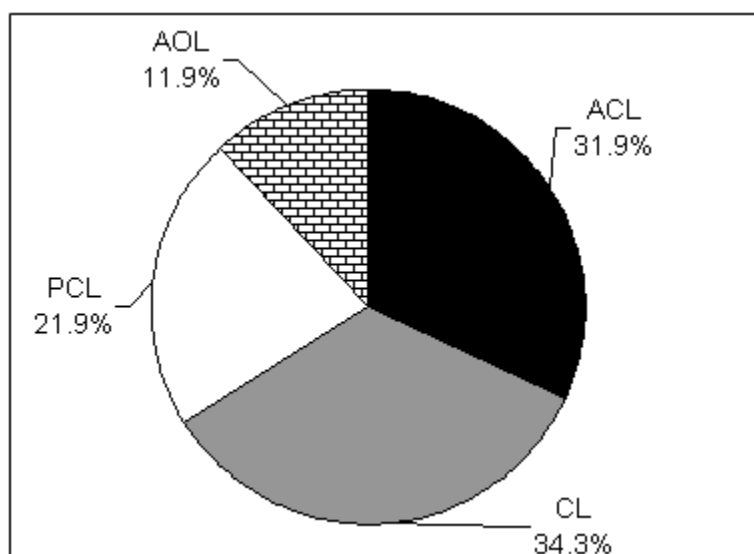CAOL = Communicative-authority-oriented learners
PAOL = Pseudo-authority-oriented learners
PCL   = Pseudo-concrete learners

Fig. 5 Breakdown of the distance learners into learning style groups

Fig. 5 indicates that the percentage of 'analytical-communicative learners' was the highest in distance learners. This was followed by 'communicative-authority-oriented learners'. The findings suggested that they were the dominant learning style groups. The other two groups were less significant as each group accounted for less that 10% of the distance learners.

The learning style groups of on-campus learners

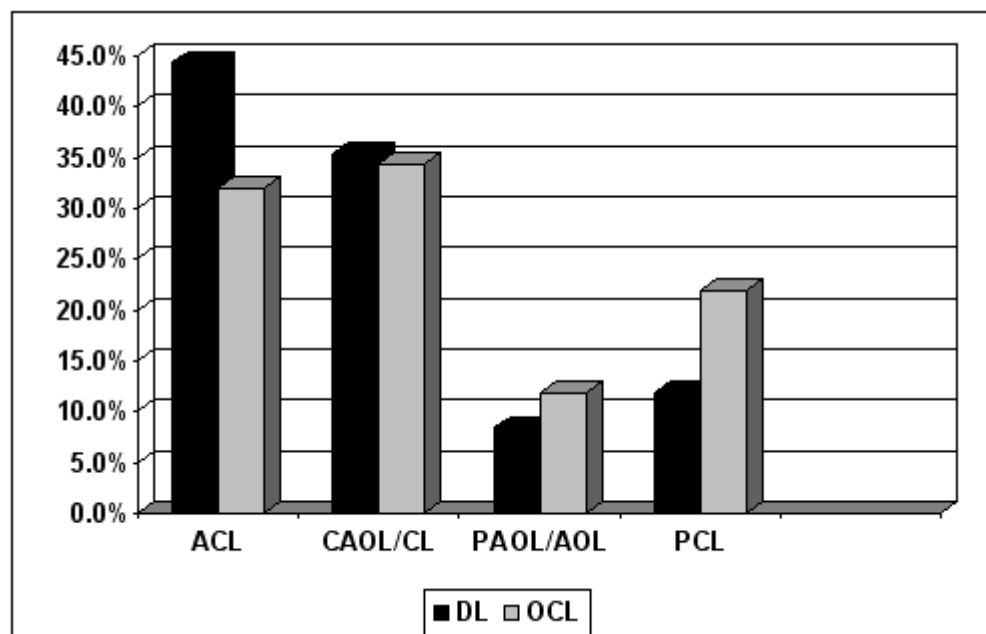|		
ACL	=	Analytical communicative learners
CL	=	Communicative learners
PCL	=	Pseudo-concrete learners
AOL	=	Authority-oriented learners

Fig. 6 Breakdown of the on-campus learners into learning style groups

Fig.6 indicates that the percentage of 'analytical-communicative learners' and 'communicative learners' was about the same in on-campus learners. These were the dominant learning style groups. 'Pseudo-concrete learners' was the next group, accounting for 21.9% of the on-campus learners. Authority-oriented learners were the least significant group.

Comparing the learning style groups of distance learners and on-campus learners

ACL = 'analytical-communicative learners'

CAOL = 'communicative-authority-oriented learners'

CL   = 'communicative learners'

PAOL = 'pseudo-authority-oriented learners'

AOL = 'authority-oriented learners'

PCL = 'pseudo-concrete learners'

Fig. 7 Comparison of common learning style groups between the distance learners and the on-campus learners

Fig. 7 indicates that there was a higher percentage of 'analytical-communicative learners' in the distance learners than in the on-campus learners. However, the percentage of 'communicative-authority-oriented' distance learners was approximately the same as the percentage of 'communicative' on-campus learners. The percentage of 'pseudo-authority-oriented' distance learners was also almost the same as that of 'authority-oriented' on-campus learners whereas the percentage of 'pseudo-concrete learners' was much higher in the on-campus learners than in the distance learners.

Discussion of results

The findings revealed that more than 40% of the distance learners were 'analytical-communicative learners' making this the most dominant learning style among the distance learners. In addition to that, they further showed that the percentage of analytical-communicative learners was much higher in the distance learners than in the on-campus learners. These findings clearly suggested that, on the whole, the distance learners were more oriented to learning English independently than the on-

campus learners. At the same time, they were more able to utilise opportunities in their daily life to interact in English.

However, the finding that over 35% of the distance learners were 'communicative-authority-oriented learners' is a disturbing feature. Learners belonging to this category are classroom-centred, dependent on classroom interaction and teachers' directions. It can be predicted that these distance learners will find it difficult to learn a language without classroom support. The findings further revealed that there were about the same percentages of 'communicative-authority-oriented' distance learners and 'communicative'on-campus learners. The common characteristic between these two learning styles is a desire for classroom interaction. In the case of the on-campus learners, this is not a problem as they have plenty of opportunities to interact in class but, in the case of the distance learners, this is a feature that is definitely lacking. The issue of how to help these distance learners to learn English effectively without classroom interaction has to be given serious consideration.

The findings further revealed that the percentage of 'pseudo-concrete learners' was less in the distance learners than in the on-campus learners. Learners with this learning style are not keen to communicate and interact in English. Instead, they prefer to learn English through audio-visual means. In my opinion, the biggest problem these learners face will be how to communicate/interact effectively in English. This problem will be particularly acute in the case of the distance learners who are studying on their own without guidance and support of their language teachers. Thus, it is fortunate that there was only a small percentage of them among the distance learners.

The percentages of 'pseudo-authority-oriented distance learners' and 'authority-oriented on-campus learners' were very low. Besides, the difference in percentages between them was not pronounced. In my opinion, 'pseudo-authority-oriented' distance learners will be able to handle the listening, reading and writing components of learning English but will have difficulty learning how to speak English. The same applies to 'authority-oriented' on-campus learners. However, 'authority-oriented' on-campus learners have the advantage of being constantly exposed to classroom interaction. The fact that there were only small percentages of these two groups of learners suggested that they were not significant learning styles.

What we can surmise from these findings is that there are differences between the ways that the distance learners and the on-campus learners approached the learning of English. On the whole, the distance learners seemed more oriented to learning English independently than the on-campus learners. It is possible that, since the distance learners are more mature learners, they are likely to be more independent learners. However, I believe the situation is more complex than that. I would like to propose the possibility of learners opting for learning styles that they believe are suitable for the mode they are studying in. As Witkin and Goodenough (1981) suggested, it is possible for some individuals to differ in their cognitive style flexibility. That is, some individuals are more fixed in their FI/FD orientation, while others are more mobile. The more mobile individuals are capable of showing characteristics of both cognitive styles, depending on the learning situation. Brown (1987) further suggested that the key to success in second language learning is mobility that allows learners to exercise "a sufficient degree of the appropriate style" (pp. 87-88) in a given context.   Thus, it

is possible for on-campus learners who are 'mobile' in their cognitive styles to shift their learning style from a more analytical (FI) to a more classroom-oriented (FD) one to suit the mode they are studying in, and the reverse is also possible in the case of the distance learners.

The findings further revealed that there was still a reasonably large percentage of the distance learners who were very dependent on classroom interaction and teachers' directions and guidance. There was also a smaller and less significant group of distance learners who expressed no interest in classroom interaction, but preferred a more audio-visual learning style. These groups would most probably be less 'mobile' in their FI/FD orientation since they were unable to shift to a learning style that was more appropriate to the distance mode of learning.

Distance learners' learning style groups according to proficiency levels
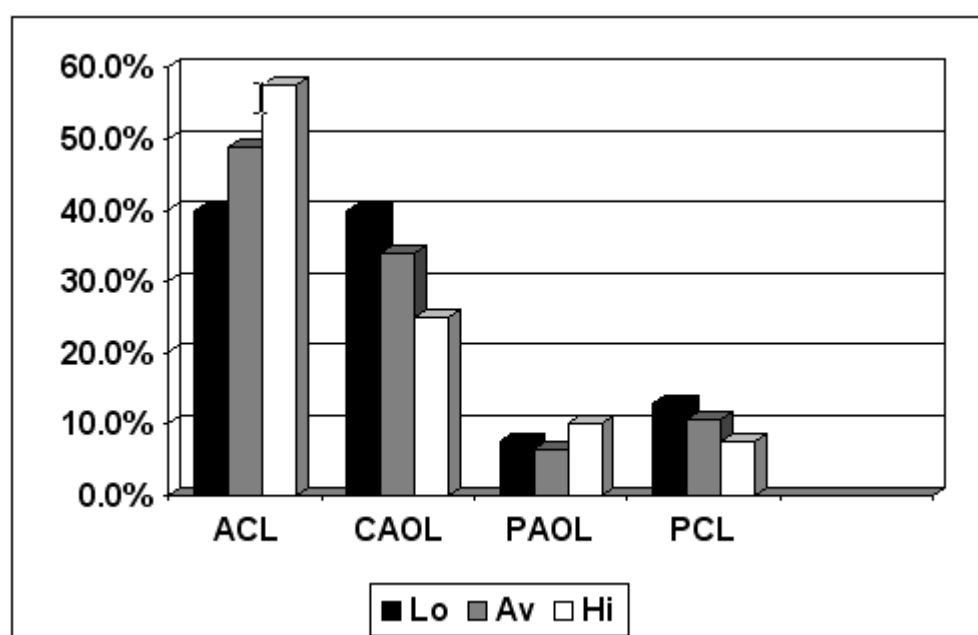
ACL   = Analytical communicative learners
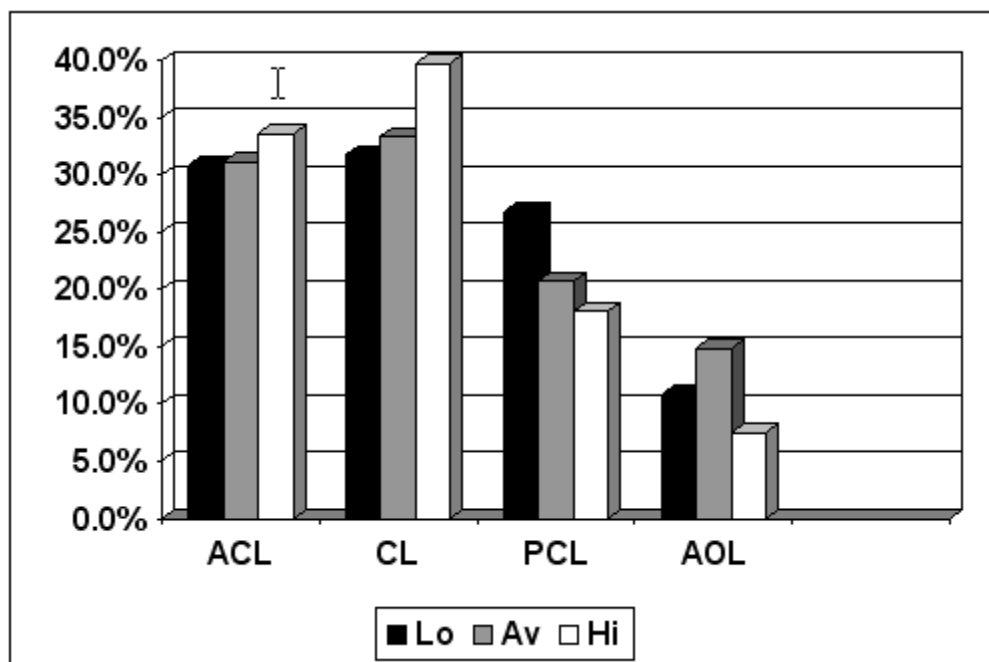CAOL = Communicative-authority-oriented learners
PAOL = Pseudo-authority-oriented learners
PCL   = Pseudo-concrete learners

Fig. 8 Comparison of learning style groups of the distance learners among proficiency level

Fig. 8 reveals that the High Proficiency distance learners had the highest percentage of 'analytical-communicative learners', and the Low Proficiency distance learners had the lowest percentage of 'analytical-communicative learners'. The trend was reversed in the case of 'communicative-authority-oriented learners' with the Low Proficiency distance learners having the highest percentage and the High Proficiency distance learners having the highest percentage. The differences in percentages of 'pseudo-authority-oriented learners' and 'pseudo-concrete learners' among the three proficiency levels were not pronounced.

On-campus learning style groups according to proficiency levels

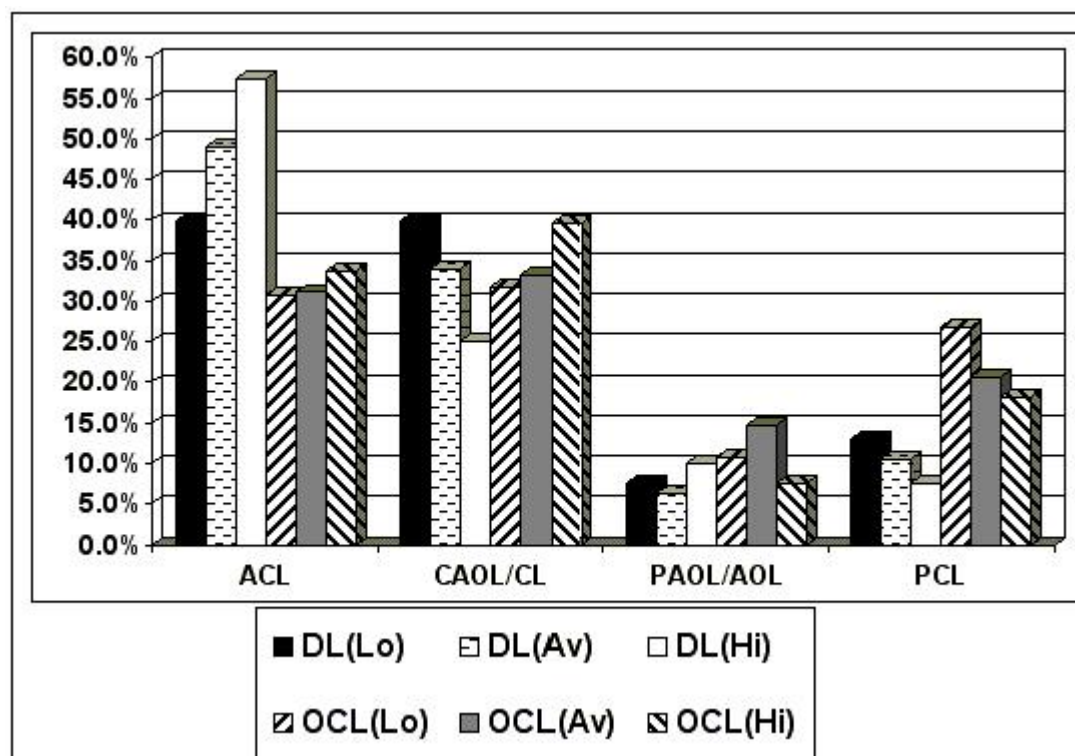| ACL | = | Analytical communicative learners |
CL	=	Communicative learners
PCL	=	Pseudo-concrete learners
AOL	=	Authority-oriented learners

Fig. 9 Comparison of learning style groups of the on-campus learners among proficiency levels

Fig. 9 reveals that the differences in percentages of 'analytical-communicative learners' among the three proficiency levels were not pronounced. However, there was a higher percentage of 'communicative learners' among the High Proficiency learners compared to the other two proficiency levels. The reverse was true for 'pseudo-concrete learners', with the Low Proficiency having the highest percentage and the High Proficiency having the lowest. The Average Proficiency learners had the highest percentage of authority-oriented learners, followed by the Low Proficiency learners and the High Proficiency learners.

Differences in learning style groups between distance learners and on-campus learners according to proficiency levels

ACL	= 'analytical-communicative learners'
CAOL	= 'communicative-authority-oriented learners'
CL	= 'communicative learners'
PAOL	= 'pseudo-authority-oriented learners'
AOL	= 'authority-oriented learners'
PCL	= 'pseudo-concrete learners'

Fig. 10 Comparison of learning style groups of the distance learners and the on-campus learners among proficiency levels

Fig. 10 demonstrates that the percentages of 'analytical-communicative learners' among proficiency levels for the distance learners and the on-campus learners were very different. In the case of the distance learners, the percentage was the highest in the High Proficiency learners, and lowest in the Low Proficiency learners. In the on-campus learners, the percentages among proficiency levels were almost similar. The trend of 'communicative-authority-oriented' distance learners was also very different from that of 'communicative' on-campus learners. For the former, the percentages decreased with an increase in proficiency levels and the reverse was true in the latter.

In the case of 'pseudo-concrete learners', the pattern in the distance learners was the same as in the on-campus learners, with the Low Proficiency levels having the highest percentages and the High Proficiency levels having the lowest percentages. The differences, however, were not pronounced. The differences in percentages of 'pseudo-authority-oriented learners' and 'authority-oriented learners' were not pronounced, and hence would not be discussed.

Overall Discussion of results

The findings revealed that the High Proficiency distance learners had the highest percentage of 'analytical-communicative learners'. This suggested that the High Proficiency distance learners were the most oriented to learning English successfully at a distance. The reverse was true for the Low Proficiency distance learners. The findings further revealed that the Low Proficiency distance learners had the highest percentage of 'communicative-authority-oriented learners'. Learners belonging to this category are the most classroom-centred, in the sense they are more dependent on classroom interaction and teachers' directions and guidance. This finding reaffirmed the earlier claim that Low Proficiency distance learners were the least oriented to learning successfully at a distance. These findings strongly suggested the likelihood of a positive relationship between distance learners' proficiency levels in English and their abilities to learn English successfully.

The above patterns were not evident in the case of the on-campus learners. The percentages of 'analytical-communicative learners' among the three proficiency levels were very similar and the pattern in 'communicative on-campus learners' was the reverse of that of 'communicative-authority-oriented distance learners'. Does that mean that there is no positive relationship between the on-campus learners' proficiency levels in English and their abilities to learn English successfully? I am more inclined to believe that this difference in patterns is a result of cognitive style flexibility (Witkin and Goodenough, 1981). This means that generally the High Proficiency learners are more 'mobile' than the Low Proficiency learners. These 'mobile' learners will opt for learning styles that they perceive to be leading to more successful learning of English. In a normal classroom environment, they will most probably opt for a more FD learning style (such as classroom interaction) and in a distance learning context, they will probably opt for a more FI style (such as 'analytical-communicative style).

It is not necessary to compare the findings between 'pseudo-authority-oriented distance learners' and 'authority-oriented on-campus learners' as the differences were not pronounced. However, the differences in 'pseudo-concrete learners' are worth considering, The findings suggested that there were more audio-visual learners among the Low Proficiency learners than the High Proficiency learners, in both the distance learners and the on-campus learners. However, since the differences were not that pronounced, not too much weight should be placed on this finding.

Implications and recommendations for distance learning of English

The findings suggested that distance learners of higher proficiency are more oriented to learning English successfully at a distance than those of lower proficiency. This means that to help students of lower proficiency, it is necessary to design materials that can accommodate different learning styles. What I would like to suggest is a flexible programme that offer a variety of tasks and support that can cater to a variety of learning styles. Students will then have the option to choose activities that they prefer. For example, listening activities can be included to cater to students who like to listen to spoken English. This can be in the form of listening to programmes on radio and television or listening to tapes. Online teacher tutoring or e-mail contact can also be introduced to provide for students who prefer more teacher contact. Tasks that

allow group interaction either face-to-face sessions or group project can also be added to help students who like group interaction.

However, it is not enough to just cater to students' different learning styles. The findings further suggested a strongpossibility that the differences in learning styles between the distance learners and the on-campus learners and between high and low proficiency learners result from cognitive style flexibility. This implies that certain groups of students (mainly those of higher proficiency) are more capable of opting for learning styles they consider more appropriate for the mode they are studying in. Thus, it would appear that it is more important to "help the students stretch by learning through alternative styles" (Kinsella, 1995:190). This will be particularly essential for students of lower proficiency level. What I would like to suggest is offering students tasks that can only be completed if they use a variety of learning styles. This will expose them to different learning styles that initially they are uncomfortable with, but in time they may learn to appreciate. In addition, it is important to ensure that the instructional design principles of the tasks given take into account salient patterns of the various styles. This will maximise the performance of diverse learners (Kinsella & Sherak, 1998). See Thang (2003) for more ideas on how to help students "stretch" through alternative learning styles.

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.

Brown, H. D. (1987). *Principles of language learning and teaching.* (2nd ed.). Englewood Cliffs, New Jersey:
Prentice hall, Inc.

Cattel, R. B. (1966). The Scree Test for the number of factors . *Multivariate Behavioural Research*,(i), 245-276.

Claxton, C., & Murrell, P. (1987). *Learning styles: Implications for improving educational practices* . Washington,
D.C.: Association for the Study of Higher Education.

Curry, L. (1983). *An organisation of learning styles theory and construct* . Paper presented at the annual meeting of
American Educational Research Association, Montreal, Quebec (ERIC Doc. No. ED 235185).

Daniel, J. (1999). *Distance learning in the era of networks: What are the key technologies?* PanCommowealth

Forum on Open Learning. (http://www.col.org/forum/daniel.html).

Das, J., Cummins, J., Kirby, J., & Jarman, R. (1975). Simultaneous and successive processes, language and mental
abilities. *Canadian Psychological Review*, 20(1).

Ferro, T. R. (1993). The influence of affective processing in education and training. In D. D. Flannery (Ed.), *Applying*
cognitive learning theory to adult learning (pp. 25-33). San Francisco: Jossey-Bass Publishers.

Gardner, R. C. (1985). *The social psychology of language 4.* London: Edward Arnold (Publisher) Ltd.

Gardner, R. C., & Lambert, W. E. (1985 *). Attitudes and motivation in second-language learning.* Rowley, Mass:
Newbury House Publishers.

Garger, S., & Guild, P. (1984). Learning styles: The crucial differences. *Curriculum Review*, 23, 9-12.

Harnett, D. (1981, April 16). *The relations of analytical and holistic cognitive styles to second language*
instructional methods. Paper presented at the Annual Meeting of the American Educational Research Association, Los Angeles.

Keefe, J. W. (1987). *Learning style theory and practice.* (1st ed.). Reston, Virginia: National Association of
Secondary School Principals.

Kim, J., & Mueller, C. W. (1978). *Factor analysis: Statistical methods and practical issues.* Beverly Hills, CA: Sage
.
Kinsella, K. (1995). Understanding and empowering diverse learners in the ESL classroom. In J. M. Reid (Ed.),
Learning Styles in the ESL/EFL classroom (1st ed., pp. 170-194). Mass: Heinle & Heinle Publishers.

Kinsella, K., & Sherak, K. (1998 *).* Designing ESL classroom collaboration to accommodate diverse work styles . In J.
Reid (Ed.)*, Understanding learning styles in Second Language classroom* (pp. 85-99). Upper Saddle River: Prentice Hall, Inc.

Kolb, D. (1976). *Learning style inventory.* Boston: McBer.

Messick, S. (1976). Personality consistencies in cognition and creativity. In Messick and associates (Ed.), *Individuality*
in learning. San Francisco: Jossey-Bass.

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

Nunnally, J. C. (1978). *Psychometric theory* (2nd Edition). New York: McGraw-Hill.

Naiman, N., Fröhlich, M., Stern, H. H., & Todesco, A. (1975). *The good language learner.* Ontario Institute for
Studies in Education.

Oxford, R., Young, P., Sukero, I., & Sumrall, M. (1993). Japanese by satellite: Effects of motivation, language learning
styles and strategies, gender, course level, and previous language learning experience on Japanese language achievement . *Foreign Language Annals*, 26(3), 359-371.

Pask, G. (1976a). Styles and strategies of learning . *British Journal of Educational Psychology,* 46.

Pask, G. (1976b *).* Conversational techniques in the study and practice of education. *British Journal of Education Psychology*, 46, 12-25.

Reid, J. M. (1987). The learning styles preferences of ESL students. *TESOL Quarterly*, 21(1), 87-111.

Skehan, P. (1998). *A cognitive approach to language learning* . Oxford: Oxford University Press.

Smith, R. M. (1982). *Learning how to learn: Applied theory for adults* . New York: Cambridge University Press.

Thang, S.M. (2003 *). 'Stretching' diverse learning styles in the Malaysian ESL classroom.* Paper presented at the
MELTA Conference in Subang Sheraton Hotel, Subang Jaya, Kuala Lumpur, Malaysia. 18 - 20 May.

USM. (1993 *).Conference on distance education* . Pulau Pinang, Malaysia: Universiti Sains Malaysia.

Willing. (1988). *Learning styles in adult migrant education* . (1st ed.). Adelaide, Australia: NCRC research series.

Witkin, H. A., & Goodenough, D. R. (1981). *Cognitive styles: Essence and origins.* New York: International.
University Press.

Zelinker, T., & Jeffrey, W. (1976). Reflective and impulsive children. *Monograph of the Society for Research in Child Development,* 41.

Appendix 1

Questionnaire: How do you learn English?

Circle the response of your choice

	4	3	2	1
1. In English class, I like to learn by reading	4	3	2	1
2. In English class, I like to learn by listening to cassettes.	4	3	2	1
3. In English class, I like to learn by taking part in activities.	4	3	2	1
4. In English class, I like to take learn by taking part in conversations and discussions.	4	3	2	1
5. In English class, I like to learn by viewing pictures, films, and videos.	4	3	2	1
6. In English class, I like to learn by taking down notes.	4	3	2	1
7. In English class, I like to learn by listening to lectures.	4	3	2	1
8. I like the teacher to explain everything to us.	4	3	2	1
9. I like the teacher to give us problems to work on.	4	3	2	1
10. I like the teacher to ask me to talk about my interests.	4	3	2	1
11. I like the teacher to tell me all my mistakes.	4	3	2	1
12. I like the teacher to let me find my own mistakes.	4	3	2	1
13. I like to study English on my own.	4	3	2	1
14. I like to learn English by talking in pairs.	4	3	2	1
15. I like to learn English in small group.	4	3	2	1
16. I like to learn English with the whole class.	4	3	2	1
17. I like to go out with the class and practise speaking in English.	4	3	2	1
18. I like to study grammar.	4	3	2	1
19. I like to learn many new words.	4	3	2	1
20. I like to practise the sounds and pronunciation of English words.	4	3	2	1
21. I like to learn English words by seeing them.	4	3	2	1
22. I like to learn English words by hearing them.	4	3	2	1
23. I like to learn English words by participating in relaxed activities.	4	3	2	1
24. At home, I like to learn by reading newspapers, etc.	4	3	2	1
25. At home, I like to learn by watching TV in English.	4	3	2	1

26. At home, I like to learn by listening to cassettes.	4	3	2	1
27. At home, I like to learn by studying English books.	4	3	2	1
28. I like to learn English by talking to friends.	4	3	2	1
29. I like to learn English by watching and listening to people whose English is good.	4	3	2	1
30. I like to learn English by using it in my daily life.	4	3	2	1

Biodata

Thang Siew Ming is a lecturer at the School of Language Studies and Linguistics, Universiti Kebangsaan Malaysia. She holds a PhD from the University of Nottingham, UK. Her areas of professional interests are distance language learning, learning processes (inc. learning styles and approaches to learning), learner autonomy and curriculum and syllabus design. Currently, she is also involved in the designing of online ESL materials.