CHAPTER SIX
SUMMARY OF FINDINGS, IMPLICATIONS,
RECOMMENDATIONS AND CONCLUSIONS

Introduction

This chapter sums up the entire study by describing briefly the research problems, objectives of the study, research methodology and findings. In addition, it draws a number of conclusions and implications from the findings of the study. Finally, some recommendations are suggested pertaining to the application of the study and also suggestions for further research.

One of the major challenges facing ESL teachers is how to engage the interest of the learners and assist them in their educational goals. The problem would be especially acute when learners differ from each other in one or more significant ways. There are several factors that could cause this diversity in the classroom. Among these are personal variables of the students, varying degree of competence, type and level of learners previous education, learning styles, learning strategies and learner expectation of appropriate classroom activities. Of these, learning styles and learning strategies have become the focus of interest among ESL teachers and program developers. Interest in these two areas stems from the belief that there are certain kinds of language learning styles and learning strategies that have more promise than others in terms of predicting ultimate proficiency or achievement. The information obtained

from these studies, could be instrumental in the improvement of the ESL learning situations, through either tailoring or individualising a given programme to meet the needs of learners or for the diagnosis or counselling of learners who have difficulties. It can also be used to empower students to become independent learners.

There is no known research on the perceptual learning style preferences, the learning strategies and the relationship between these two variables on Malay ESL university students in Malaysia. There have been previous studies carried out in Malaysia using either one or the other of these two variables and with respondents from multi-ethnic groups. Abdullah (1999), Hariharan and Abdullah (1999) as well as Syed Sahil and Wan Din (1995) used the PLSP questionnaire to study the perceptual learning style preferences of multi-ethnic university students. Singh (2000), as well as Hashim and Syed Sahil (1994) used the SILL to study the learning strategies of ESL students. An additional feature in this research is the use of case studies to seek explanations for some of the variations in the strategies used by students with different perceptual learning style preferences.

In view of the gaps identified in past research on the perceptual learning style preferences and learning strategies on Malay ESL students, this study was carried out to address the following research questions:

1. What are the perceptual learning style preferences of Malay ESL students in a local university?

2. Is there a relationship between personal variables of these students and their perceptual learning style preferences?

3. What are the ESL learning strategies used by these students?

4. Is there a relationship between personal variables of these students and their ESL learning strategies?

5. Is there a relationship between the perceptual learning styles of these students and their ESL learning strategies?

6. How do three ESL students who differed in their perceptual learning style preferences select their learning strategies for a reading comprehension task?

Objectives of the Study

The overall objective of this study is to determine the perceptual learning style preferences, the learning strategies and the relationship between the perceptual learning style preferences and learning strategies of selected Malay ESL students in university. The study also explores the processes that respondents go through when selecting learning strategies for a reading comprehension task. More specifically this study attempts to determine the following:

1. The perceptual learning style preferences of Malay ESL students in terms of their major learning styles, minor learning styles and negligible learning styles.

2. The relationship between selected personal variables of (a) age (b) number of years of studying the English Language (c) proficiency in the English Language (d) gender and (e) field of study and the perceptual learning style preferences of the students.

3. The learning strategies used by these students in ESL learning.

4. The relationship between selected personal variables of (a) age (b) number of years of studying the English Language (c) proficiency in the English Language (d) gender and (e) field of study and the learning strategies used in ESL learning.

5. The relationship between the perceptual learning style preferences of these students and their ESL learning strategies.

6. An in-depth study of how three ESL students with different perceptual learning style preferences select learning strategies for a reading comprehension task.

Study Setting

University Teknologi Mara was selected as the study setting. This university provides training for professional, technical and scientific courses in the fields of trade, industry and science.

Respondents for the Study

A total of 137 students were selected as respondents for this study. They were from three fields of study namely, Business Management, Secretarial Science and Computer Science. In the study of cases, three respondents possessing three different perceptual learning style preferences were selected from the respondents in the study.

Measurement of Research Variables

Data was collected by means of three structured questionnaires which are as follows:

1. A background questionnaire was used to obtain information regarding the personal variables of the respondents;

2. The Perceptual Learning Style Preference (PLSP) questionnaire was used to determine the learning style preferences of the respondents; and

3. The Strategy Inventory for Language Learning (SILL) was used to collect information pertaining to the learning strategies used by the respondents.

For the case studies, data was collected by means of a series of interviews.

Data Analysis

Two types of data analysis were used in this study. Quantitative data from the questionnaires was analysed using the Statistical Package

for Social Sciences (SPSS for Windows version 11). The statistical techniques used to analyse the data included descriptive statistics and inferential statistics. Transcripts of interviews conducted with students in the case studies represented qualitative data. This qualitative data was analysed by means of content analysis.

Summary of Findings

The summary of the findings of this study are discussed under five sub-headings, namely, characteristics of the respondents, perceptual learning style preferences of the respondents, the learning strategies used by the respondents in ESL learning, the relationship between perceptual learning style preferences and learning strategies, as well as, the findings of the case studies.

1. Characteristics of the respondents

    (a)   The respondents were homogenous in terms of age range, that is, from 18-25 years. They were therefore, adult learners.

    (b)   They were from three different fields of study, that is, Business Studies, Secretarial Science and Computer Science.

    (c)   They were heterogeneous in language proficiency, a factor that has been found to be related to perceptual learning style preferences.

(d)   Most of the respondents spoke only the Malay language at home and at university level they had very little opportunity to use the English language outside the classroom as all their peers were also Malays. Being homogenous in terms of race, they were more likely to use their mother tongue to interact and to communicate.

(e)   Most of the respondents considered learning the English language as important.

(f)   Most of the respondents were interested in learning the English language and indicated that they enjoyed learning the language.

(g)   Majority of the respondents were not interested in the culture associated with the English language.

2.   Perceptual Learning Style Preferences of the Respondents

(a)   The ESL respondents showed variations in their perceptual learning style preferences.

(b)   Research findings of a study carried out on the learning style preferences of Malay ESL students in America by Reid (1987) differed from the findings of this study, which is on the learning style preferences of the Malay ESL student in Malaysia. This suggests that the learning style preferences of ESL students could be influenced by the host culture.

(c) The respondents had major preferences for kinesthetic, tactile, group and auditory learning styles with kinesthetic being the most preferred of the learning styles. They had minor preferences for visual and individual learning styles. Since teaching styles have been found to influence the learning styles of students, there is a possibility that the major learning style preferences of these students especially the kinesthetic, tactile and group learning styles are reflective of the teaching and learning styles they have been exposed to during their school days. The fact that the KBSM curriculum actually recommends these learning styles lends credence to this theory.

(d) Certain personal variables of the respondents such as age, number of years of learning the English language, language proficiency, gender and field of study influenced the perceptual learning style preferences of the respondents.

(e) Age of the respondents was found to correlate negatively with kinesthetic and tactile learning style preferences.

(f) Number of years respondents spent studying the English language was found to correlate negatively with kinesthetic, tactile and group learning style preferences and positively with individual learning style preferences.

(g) There was negative correlation between language proficiency and group learning style preference. Conversely, there was

positive correlation between language proficiency and individual learning style.

(h) Female students were found to have a significantly higher preference for auditory learning style compared to male students.

(i) Computer Science students were found to have a significantly higher preference for tactile learning style compared to Secretarial Science students. Computer Science students were also found to have a significantly higher preference for group learning style compared to Business Management students.

3. Learning Strategies used by the Respondents in ESL learning

(a) The respondents used both the direct (memory, cognitive and compensation) and indirect (metacognitive, affective and social) learning strategies in their ESL learning situations.

(b) Metacognitive strategies were found to top the list of ESL learning strategies used by the respondents, social strategies were second and compensation strategies were third. The respondents were also found to be high level users of these strategies. From the case studies it was found that the student who was typical of the majority of the respondents in this study used all the three strategies mentioned. In addition, he also seemed to use a considerable amount of memory and cognitive

strategies. This suggests that strategy-use could be task related since the case studies focussed on the use of learning strategies in a reading comprehension task.

(c) The respondents were found to be using all the metacognitive sub-strategies of centering learning, arranging and planning learning, and evaluating learning. This indicates that respondents were capable of planning and managing their learning, which is an important initial step towards autonomous learning.

(d) All learning strategies were used at least at medium level by the respondents indicating that the learners have a knowledge of all the learning strategies. This was reflected in the case studies. All three students used the six learning strategies. A point to note here however, is that the students varied in the use of the different sub-strategies. There were also differences in the frequency of use of these strategies.

(e) There was positive correlation between the duration of learning the English language and metacognitive strategies. This suggests that students who have spent more time learning the English language are able to plan and manage their language learning better than new learners.

(f) There was no correlation between language proficiency and the learning strategies used by the respondents. This suggests that

strategies can be taught to students with low language proficiency.

(g) Female students were found to use the metacognitive strategies significantly more often than male students.

(h) Fields of study were found to influence the selection of learning strategies. Business Management students used the cognitive learning strategies more often than Secretarial Science students.

4. Relationship between learning styles and learning strategies

(a) Certain perceptual learning style preferences were found to correlate significantly with the learning strategies used by the students. Visual, auditory, kinesthetic, tactile and individual learning correlated significantly with memory strategies. Auditory learning style correlated significantly with cognitive strategies. Individual learning style correlated significantly with metacognitive strategies. Auditory, kinesthetic and tactile learning styles correlated with social learning strategies.

(b) Correlation of the learning style preferences of the students and their learning strategies implies that students to some extent select learning strategies that are appropriate to their learning styles.

5. The findings of the case studies

    (a) The student who has been exposed to a supportive home environment where English language is used together with the Malay language possessed self-confidence and a positive self-image where competence in ESL learning was concerned.

    (b) The level of self-confidence and self-image regarding ESL learning seemed to influence selection of learning strategies.

    (c) The student who displayed major preferences for all the learning styles was found to be the more proficient in the English language compared to the student who showed minor learning preferences for all learning styles.

    (d) Although all three cases seemed to use most of the main learning strategies, students with lower self-confidence and self-image tended to use different sub-strategies. The sub-strategies selected by these students tended to be those that are indicative of low language proficiency students. Examples of these strategies are translating to mother tongue (cognitive), adjusting or approximating the message (compensation), asking for clarification and verification, and cooperating with proficient users of the language (social strategies). The more self-confident student with better self-image and higher language proficiency tended to use sub-strategies in keeping with his competence, for example note taking and summarising

(cognitive strategies), self-evaluation and self-monitoring (metacognitive), as well as cooperating with peers so as to have opportunities to use the language (social strategy).

(e) Knowledge of learning strategies did not ensure that the students were able to come up with the correct answers for a reading comprehension task. There were instances when a learner had consciously used a particular learning strategy to complete a task but came up with the wrong answers. This suggests that the ability of learners to match the choice of strategy to the demands of the tasks was probably an important factor in their success as language learners.

Implications

Several implications can be drawn from the research findings of this study for ESL teaching and learning. These implications are discussed in relation to personal characteristics of the respondents, their perceptual learning style preferences, learning strategies, training, and development of curricular materials.

I. Implications of personal characteristics of the respondents for ESL teaching and learning.

(a) Age was found to correlate negatively with memory strategies. This suggests age-related decline in the use of the particular strategies. This also implies that ESL learning should begin at

an early age if students are to use the whole repertoire of learning strategies.

(b)   The students were from one ethnic group, that is, they are all Malays with different levels of proficiency in the English language. Being from the same ethnic group they tended to code-switch from English to the Malay language when talking to their peers. Therefore, the opportunity for practicing naturalistically was very minimal. As a result, teachers need to plan immersion programmes for these students which would provide them more exposure to the target language.

(c)   The students reported that they were not only interested in learning the English language but also enjoyed learning the language. However, they professed not to be interested in the culture associated with the language. This implies that the students' motivation to learn the language is instrumental, not integrative. Therefore ESL teachers should be sensitive to the motivation type of their students. Some teachers may be operating under the assumption that students' integrative motivation brings better results than instrumental motivation. Such teachers may be tempted to use methodological approaches that encourage assimilation to the target culture in a second language context. In such situations, teachers should be discouraged from such methodological approaches. Any

attempts to ascribe integrative motives to the students may appear to be distasteful to the students. Besides, research reports (Lukmani, 1972; Gardner and Macintyre, 1991)) show that instrumental motivation is just as powerful as integrative motivation. As the instrumental motivation of the students under study is to master the English Language in order to pursue their academic studies and also since these students are from different fields of study, teachers could take an ESP (English for Specific Purposes) approach in which the students are taught in the context of their general academic fields of study.

(d)   Cultural attitudes appear to have an impact on students' attitudes to learning, that is the way they learn and are taught, and what they expect of and get from their education. Differing national characteristics can make it dangerous to assume that other country's educational ideas or performances are better. As such, transposing teaching methods that apparently produce good results in one country does not mean that the same results will be achieved in another country. It could do more harm than good.

2.   Implications of learning style preferences and strategies on ESL teaching and learning.

(a) The findings of the research on perceptual learning style preferences and learning strategies have both curricular and instructional implications.

(b) In the case of learning styles, it could start with assessing the teachers' and learners' learning style preferences and accepting that personal variables of the learners such as age, years of learning the language, language proficiency, gender, field of study and culture influence their learning style preferences. These learning style preference results can then be used in learner training, for tailoring instructions and for preparing suitable learning environment.

(c) As with learning styles discussed above, the implication for learning strategies concern assessing the learning strategies of the students. Since personal variables of learners such as duration of study, gender, field of study, self esteem and learning style preferences have been found to influence the learners' selection of learning strategies, these results could be applied to train learners in the use of the different strategies.

(d) Teachers could therefore make conscious efforts to improve this teaching/learning situation in the following situations:

    i. Teachers could become aware of the students' learning styles as well as their own learning/teaching styles. In the event the students' styles do not match the teacher's,

both the students and the teacher should be aware of the differences and the possible consequences of those differences.

ii. Language learners should be made aware of their dominant perceptual learning style(s) and their learning strategies in order for them to participate more actively and effectively in their own language development. This can be done by administrating the PLSP questionnaire (for learning styles) and SILL (for learning strategies) to the students when they have gone some way into the ESL course. Administration of the questionnaires after the students have studied the language for sometime will allow them to have an opportunity to reflect on their learning processes when completing the questionnaires.

iii. Language teachers must become aware of their own learning style preferences to enable them to accommodate the diversity of learning styles in their classrooms. Teachers who teach exclusively in a manner that is compatible with their own learning style but in conflict with that of the learners can inhibit learning. By analysing their own learning style preferences using the PLSP questionnaire, teachers can become aware of their own learning styles. The teachers' knowledge of their

own learning style(s) will enable them to develop a more flexible and varied approach to teaching the language and towards creating a classroom open to different styles of teaching and learning.

iv. It is important that there is agreement between student's perceptual learning style preferences and environmental demands. Students who can adjust easily to the demands of their environment can use their preferred learning styles and also adapt well to other learning styles. Since there is evidence that students with greater learning style flexibility are also greater achievers, teachers should not only work at matching students' learning styles with their own but should also encourage the students to develop their weaker learning style preferences.

v. Teachers have a responsibility to provide multiple opportunities for their students to investigate, identify and use their learning styles and learning strategies.

vi. Teachers need to integrate as many teaching styles as possible into their class preparation even though they may not feel entirely comfortable using some of them.

vii. Teachers should encourage their students to "stretch" their learning styles and learning strategies in order to

become more empowered in a variety of learning situations. This involves allowing students to experience various alternative learning styles and strategies, even mismatches to better challenge and stimulate the students. For example, students who are most comfortable working alone could be encouraged to work in groups with thoughtful and thorough preparation beforehand, including emphasis on group discussion skills, role play with group roles, practice in observing group processes and so on.

viii. Since particular learning styles and strategies have been found to be suitable for particular learning tasks, students need to know which styles and strategies are appropriate in special learning situations and for special purposes.

ix. Students need to co-operate with teachers in matching teaching and learning styles. Students should find ways of informing their teachers when classroom approaches and activities are not meeting their needs.

x. Students should also learn to become more tolerant of ambiguous situations in ESL learning. Such tolerance will enable them to adjust to different learning styles and strategies and will allow them to work to strengthen their weaker learning styles and strategy preferences.

xi. Students need to go beyond their "comfort zones" and to open themselves to more opportunities from one preferred learning style and strategy to another. This will enable them to expand their learning styles and strategy repertoires in order to become more autonomous in their learning. Students need to build on the learning styles and strategies that they currently use and to experiment with new ones. They need to learn how to compensate for their style and strategy weaknesses in order to broaden the scope of their approaches to learning. Examples of ways that they can do this are for visual learners to practice with audiotapes, for auditory learners to try reading supplements or hands-on material such as computer programmes, for students to rotate in class between different modules with the same or similar content set up to accommodate visual, auditory and kinesthetic preferences.

xii. Also, in accordance with the students' preference for group learning style, ESL teachers should be taught how to use cooperative and collaborative learning strategies in their classrooms.

3. Implication for training

    Students need to be given training in learning styles and strategies so that they will be able "stretch" themselves to cope with varying learning situations.

4. Implications for development of curricular materials

    (a) People involved in preparing curricular material need to be sensitive to the culture of the learners. Learning styles and strategies suggested in these materials must be culturally acceptable to the learners.

    (b) Training in learning styles and strategies could be built into the curricular materials.

    (c) In line with empowering the learners, that is, encouraging learner autonomy, curricular materials that allow independent learning such as self-access materials and those that use multimedia should be developed.

Recommendations

Based on the implications of this study, the following recommendations are suggested:

Assessment of Learning Style and Strategies

The assessment of ESL learning styles and strategies of the students should be carried out by administering the PLSP questionnaire

and the SILL. The results of the assessments will enable both the teacher and the students to understand the students' individual learning styles and strategies and to become aware of the modalities and strategies that they avoid or seldom use. Before taking part in any assessment, students need to be reassured that they have the potential to master any subject matter across the curriculum and that their ability to master it will be determined by their learning style preferences and learning strategies. Before the assessment sessions, the teacher should explain to the students the concept of individual differences in learning, emphasising why it would be valuable to both the teacher and the students to explore the topic. To prevent students from being labeled as having the wrong learning styles and strategies, the teacher must stress the fact that no style is better than the another.

"Stretching" Learning Style Preferences and Learning Strategies

After helping students identify their modality strengths and weaknesses with the PLSP questionnaire and SILL, the teacher can assist the students by sharing with them specific strategies for studying materials through their modality strengths. Once the students are familiar with the learning strategies that complement their learning styles, learners are then more capable of managing their own learning.

Another important role of the teacher would be to suggest alternative learning styles and strategies for approaching challenging learning tasks and to encourage students to experiment with these different learning styles and strategies. Students can be introduced to some of the useful characteristics of the different perceptual learning styles and learning strategies other than their own, thus enhancing their natural styles and strategies.

Learning Strategy Training

Students should be given training in learning strategy to encourage them to develop and explore new strategies, and in this way teachers can create in the students awareness of their cognitive capabilities. It is recommended that Wenden's proposals on learning strategy training be adopted. Wenden (1991) suggested that given the limitation of time available for ESL in the classroom, learners could benefit greatly in the long run if a substantial proportion of the formal learning time available be used to train them in ways of learning for themselves. Wenden (1991) also suggested that learner strategies are the key to learner autonomy and that one of the most important goals of language training should be the facilitating of that autonomy. Teachers should therefore promote learner autonomy. In order to do this, the learners must be given strategy training.

Based on Wenden's (1991) findings, for strategy training to be effective, it should be based on the following principles:

1. The purpose of the training should be made explicit and its value should be emphasised to the students

2. Students should be trained to regulate or oversee the use of the strategy, that is, when it is appropriate to use it; the difficulties they may face when implementing it, and its effectiveness;

3. Training should be in the context of the subject matter content and /or skill for which it is appropriate. It should be directed to specific language learning problems related to the learners' experiences;

4. Strategy training should be interactive, that is, the learners should be left on their own to practice. However, this should only be carried out after the students have acquired the ability to regulate their use of the strategy; and

5. The contents of the training should be based on the actual proficiency of the learners. Therefore at the outset of the training, information on which strategies students use and how they use them should be collected.

Another approach to strategy training which has been found to be effective by ESL teachers is that proposed by Jones, Palinscar, Ogle and Carr (1987). This approach includes the following processes:

1. Assessing strategy use: Teacher determines if the students are currently using a strategy in the learning situation and what the strategy is. Teacher also evaluates the strategy use to determine whether it is appropriate to the learning situation;

2. Explaining the strategy: After evaluating the learning strategy the students are currently using, the teacher presents the proposed strategy. During this process, the teacher explicitly informs the students about (1) what strategy they were learning (declarative information), (2) how they should employ the strategy (procedural information) and (3) in what context they should employ the strategy (conditional information). The teacher then provides information about strategy use (procedural knowledge);

3. Modelling the strategy: The teacher demonstrates or models the use of the strategy. The focus of the modelling is the thinking process;

4. Scaffolding the instruction: In this process the teacher supports the students' attempts to use the strategy, providing additional instruction and modeling as the need indicates; and

5. Relating cognitive strategy instruction to motivation: One of the goals of strategy training is to alter students' beliefs about themselves as ESL learners. By teaching the students that their failures can be attributed to the lack of effective strategies rather than lack of ability can help alter their belief about themselves.

When teachers provide students with not only successful experiences but also experiences where they see the effects of their strategic effort. This will in turn help them sustain strategy-use.

Grouping Strategies

Teachers can use a variety of techniques and grouping strategies to help learners in their classroom. They can use self-access materials appropriate to the learning style and strategies of the learners. This will provide opportunities for the learners to be successful, comfortable and productive for at least a portion of each class time. When planning and teaching students with different needs, the teachers must remember that what they regard as good language learning may not match those of the learners. Where there is a mismatch between learner and teacher perceptions of what constitutes useful activities, teachers should be prepared to include other activities that meet the needs and expectations of the learners.

The use of grouping strategies can form the basis for the multilevel class as teachers mix and match groups, pair learners and allow time for individual or solo activities during each class period. Certain factors should be considered in setting up group and pair activities such as differences in age and English Language ability. Sensitivity to potential differences arising from group and pair work is necessary. Class

discussion of personal differences in learning styles and strategies and interaction patterns may help overcome initial resistance. When carrying out group work teachers should consider the following:

1.   Teachers can use whole group activities initially for beginning a new class and regularly for daily warm-up time. They can focus the entire group on a theme that later involves various individuals and small group tasks;

2.   The use of small group work by teachers will provide opportunities for learners to use their language skills and is often less intimidating than whole group work. Teachers can set up small homogenous groups according to learning styles or strategies of the learners and these groups need not be equal in size or permanent. Teachers can also set up heterogenous groups made up of learners who have disparate styles or learning strategies. This will provide opportunities for the learners to "stretch" their learning styles and strategies to accommodate that of their group members. The use of cross-ability grouping by teachers in the classroom allows stronger learners to help others and maximise complementary learner strengths; and

3.   Teachers who want to provide their learners with maximum opportunity to use their communicative skills should group them in pairs. Like ability pairs succeed when partners' roles are interchangeable or equally difficult. Cross ability pairs work best

when partners are given different roles and heavier demands are placed on the more proficient learner.

Design of Integrated Learning Systems

Teachers can design and use computer-based learning systems. Technology-based learning such as the use of multimedia allow the design of integrated learning systems which can have the capability of acting as intelligent tutors and controlling the presentation and assessment of learning and instructions. The effectiveness of such systems is likely to be greatly enhanced by the incorporation into their control systems of the means of assessing learning style preferences. The computer system should have the capability to use this information to adapt instruction to suit the learning style preferences of the individual students.

To be feasible and practically useful, an integrated learning system will require a framework for making decisions about the requirements of an individual student. These will include:

1. The initial assessment of student knowledge necessary to give understanding to the topic; and

2. The controlling of aspects of presentation to facilitate ease of learning and to reduce information load by taking into account the student's learning style in terms of:

(a)   conceptual structure;

(b)   type of context (verbal or visual);

(c)   layout of information (for example, tables and   diagrams);
        and;

(d)   choice in mode of presentation.

Books and Learning Materials

Since learning styles and learning strategies have been found to be linked with the cultural practices of the learners, curriculum developers and writers must be culture sensitive when suggesting learning styles and strategies for particular topics in their books or other teaching materials.

Motivating the Students

Teachers should motivate students by encouraging them to practise more in the ESL learning and emphasise on the advantages of ESL acquisition for their career prospects and the attainment of instrumental goals. Teachers should not try to force the learners to immerse themselves in the cultural aspects of the English Language. Attempts to try this approach with the learners would alienate them.

Conclusion

The perceptual learning style preferences and learning strategies of ESL students have been found to have impact on their academic and

social achievements in their learning environments. Therefore, every teacher concerned with issues of access and equity has to give serious consideration to both these student variables in their classrooms. The way to do this is by creating a truly learner-centred classroom. A teacher who creates a learner-centred classroom understands and respects the diversity of learning strengths within any group, and offers choices in how information and skills will be acquired. A genuinely student-centred classroom is a democratic educational environment that enables students to develop their individual learning styles and learning strategies to meet the diverse demands of their learning environment and student-life with increased confidence and competence. The ultimate goal is learner autonomy where the learners are able to completely manage their own learning.

Suggestions for Further Research

Given the findings of this study, further research in the following areas is suggested:

1. Since the scope of this study is limited to Malay ESL students at university level, further research should be carried out with Malay ESL students at other institutions of higher learning. Thus, the validity and generalisability of the current study will be strengthened if similar results are obtained;

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2. The study should be replicated with Malay ESL students from primary and secondary schools to determine whether educational levels influence learning styles and strategies;

3. A similar study should be carried out with students from other major ethnic groups and comparisons made; and

4. Since the review of literature reveals that apart from learning styles and strategies there are other learner variables related to demography, personality and socio-cultural factors that influence ESL learning. Further research using a multivariate model encompassing all these variables should be carried out, followed by regression analysis to determine the contribution of learning styles and learning strategies to ESL learning success.