A COMPARATIVE STUDY OF STUDENTS’ PERCEPTUAL LEARNING STYLE
PREFERENCES AND THEIR ACADEMIC ACHIEVEMENT IN LEARNING
ENGLISH AS A FOREIGN LANGUAGE AT NELSON ENGLISH LANGUAGE
CENTRE, MYANMAR

Rose Nge Nge
I.D. No. 5929508

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of
MASTERS OF EDUCATION
in Curriculum and Instruction
Graduate School of Human Sciences
ASSUMPTION UNIVERSITY OF THAILAND
2018
A COMPARATIVE STUDY OF STUDENTS’ PERCEPTUAL LEARNING STYLE
PREFERENCES AND THEIR ACADEMIC ACHIEVEMENT IN LEARNING
ENGLISH AS A FOREIGN LANGUAGE AT NELSON ENGLISH LANGUAGE
CENTRE, MYANMAR

Rose Nge Nge
I.D. No. 5929508

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of
MASTER OF EDUCATION
in Curriculum and Instruction
Graduate School of Human Sciences
ASSUMPTION UNIVERSITY OF THAILAND
2018
Thesis Title: A COMPARATIVE STUDY OF STUDENTS’ PERCEPTUAL LEARNING STYLE PREFERENCES AND THEIR ACADEMIC ACHIEVEMENT IN LEARNING ENGLISH AS A FOREIGN LANGUAGE AT NELSON ENGLISH LANGUAGE CENTRE, MYANMAR

By: ROSE NGE NGE

Field of Study: CURRICULUM AND INSTRUCTION

Thesis Advisor: ASSOC.PROF.DR.SUWATTANA EAMORAPHAN

Accepted by the Graduate School of Human Sciences, Assumption University in Partial Fulfillment of the Requirements for the Master Degree in Education

------------------------------------------------------------------------------------------------------------------------

(Assoc.Prof.Dr. Suwattana Eamoraphan)

Dean of the Graduate School of Human Sciences

Thesis Examination Committee

------------------------------------------------------------------------------------------------------------------------ Chair

(Assoc.Prof.Dr. Supit Karnjanapun)

------------------------------------------------------------------------------------------------------------------------ Advisor

(Assoc.Prof.Dr. Suwattana Eamoraphan)

------------------------------------------------------------------------------------------------------------------------ Faculty Member

(Dr.Md. Ziaul Abedin Forhad)

------------------------------------------------------------------------------------------------------------------------ External Expert

(Assoc. Prof. Dr. Archanya Ratana-ubol)
ABSTRACT

I.D. No.: 5929508

Key Words: LEARNING STYLES, ACHIEVEMENT, STUDENTS’ PERCEPTUAL LEARNING STYLE PREFERENCES, MYANMAR

Name: ROSE NGE NGE

Thesis Title: A COMPARATIVE STUDY OF STUDENTS’ PERCEPTUAL LEARNING STYLE PREFERENCES AND THEIR ACADEMIC ACHIEVEMENT IN LEARNING ENGLISH AS A FOREIGN LANGUAGE AT NELSON ENGLISH LANGUAGE CENTRE, MYANMAR

Thesis Advisor: ASSOC.PROF.DR.SUWATTANA EAMORAPHA

The purpose of this study was to determine the perceptual learning style preferences of students who are learning English as a foreign language at Nelson English Language School (NELC) in Myanmar during academic year 2018. This study was carried out to investigate the level of students’ academic achievement in learning English as a foreign language and to compare the preferred learning styles with their academic achievement. The research was conducted from 26 May to 28 May, 2018 at NELC in Myanmar. As a major source of data collection, the researcher used Reid’s Perceptual Learning Style Preference Questionnaire (PLSPQ). There were 155 students who responded to the questionnaire and respondents’ return rate was 100%. The data collected from the PLSPQ was analyzed by frequency and percentage, means and standard deviations and a one-way analysis of variance (ANOVA). According to this study, the students preferred mixed learning style the most followed by group learning style, kinesthetic learning style, auditory learning style, visual learning style,
tactile learning style and individual learning style respectively. The result of this study showed that there was a very high level of academic achievement of students in NELC and there was no significant difference among students’ academic achievement according to their most preferred learning style. It is strongly recommended that NELC uses this study data to conduct teacher professional development plans and apply differentiated instruction in the classroom to meet the requirements of the students and to create a better learning environment where the students can access to many different learning styles.

Field of Study: Curriculum and Instruction

Graduate School of Human Sciences

Academic Year 2018

Student’s signature …………………

Advisor’s signature …………………
ACKNOWLEDGEMENTS

Firstly, my sincerest gratitude goes to Katholischer Akademischer Ausländer-Dienst (KAAD) organization for their financial support during my 2 year study at Assumption University in Thailand. I can fulfill my wish to do my further study at a prestige university in Thailand due to their support and prayers.

Secondly, I would like to express my deepest appreciation to my major thesis advisor Assoc. Prof. Dr. Suwattana Eamorphan for her professional guidance, encouragement and kindness which inspired me a lot throughout conducting and writing this thesis. Without her persistent help, this thesis would not have been possible.

I would like to thank all the thesis committee members, Assoc. Prof. Dr. Suwattana Eamorphan, Assoc. Prof. Dr. Supit Karnjanapun, Dr. M.D. Ziaul Abedin Forhad and Assoc. Prof. Dr. Archanya Ratana-ubol. Each of them has provided me extensive professional guidance and I have learnt a lot from them by their detailed comments and suggestions. My special thanks to Asst. Prof. Dr. Orlando Rafael Gonzalez and Asst. Prof. Dr. Richard Lynch who taught me a great deal about educational research and Asst. Prof. Dr. Yan Ye for her never ending help in utilizing statistics. Furthermore, I appreciate all wonder help from academic staff, Mr. Nikom Rord-Kwan and secretary Mrs. Niti Sampat during this whole process.

I am grateful to all of those with whom I have had pleasure to work during collecting data for my thesis at Nelson English Language Centre, Myanmar. I would especially like to thank Mr. Nelson Rweel, director of NELC, for allowing me to conduct my thesis in his school and all the students from NELC who responded my questionnaire.

Finally, I wish to thank every single member in my family whose love, prayer and guidance are with me in whatever I pursue. Most importantly, thank you for encouragement and help from all my mentors, classmates and friends whom I encountered during my study in Assumption University, Thailand.
# CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>COPYRIGHT</td>
<td>ii</td>
</tr>
<tr>
<td>APPROVAL</td>
<td>iii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iv</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>vi</td>
</tr>
<tr>
<td>CONTENTS</td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>x</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xi</td>
</tr>
</tbody>
</table>

## CHAPTER I  INTRODUCTION

- Background of the Study ................................................. 1
- Statement of the Problem ................................................. 3
- Research Questions ...................................................... 4
- Research Objectives ...................................................... 4
- Research Hypothesis ..................................................... 4
- Theoretical Framework ................................................... 5
- Conceptual Framework ................................................... 6
- Scope of the Study ....................................................... 6
- Definitions of Terms ..................................................... 7
- Significance of the Study ............................................... 8

## CHAPTER II  REVIEW OF RELATED LITERATURE

- The Concept of Learning Styles ........................................ 10
<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carl Jung’s Learning Styles Model ........................................ 11</td>
</tr>
<tr>
<td>Dunn and Dunn Learning Style Model ........................................ 14</td>
</tr>
<tr>
<td>Reid’s Perceptual Learning Style Preference .......................... 17</td>
</tr>
<tr>
<td>Honey and Mumford’s Learning Styles Questionnaire .............. 20</td>
</tr>
<tr>
<td>VARK Learning Style Model.................................................. 21</td>
</tr>
<tr>
<td>Previous Studies of Learning Styles...................................... 22</td>
</tr>
<tr>
<td>Controversial Aspects of Learning Styles Theory ..................... 27</td>
</tr>
<tr>
<td>English in Asian Countries and the Issues of Proficiency ....... 30</td>
</tr>
<tr>
<td>English Language Learning in Myanmar ................................. 33</td>
</tr>
<tr>
<td>Background of Nelson English Language Centre ...................... 36</td>
</tr>
</tbody>
</table>

**CHAPTER III RESEARCH METHODOLOGY**

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Design........................................................................ 39</td>
</tr>
<tr>
<td>Population ............................................................................. 40</td>
</tr>
<tr>
<td>Sample.................................................................................... 40</td>
</tr>
<tr>
<td>Research Instrument ................................................................ 41</td>
</tr>
<tr>
<td>Collection of Data..................................................................... 46</td>
</tr>
<tr>
<td>Data Analysis .......................................................................... 47</td>
</tr>
<tr>
<td>Summary of the Research Process .......................................... 48</td>
</tr>
</tbody>
</table>

**CHAPTER IV RESEARCH FINDINGS**

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Finding for Research Objective One ....................... 50</td>
</tr>
<tr>
<td>Research Finding for Research Objective Two ....................... 51</td>
</tr>
<tr>
<td>Research Finding for Research Objective Three .................... 52</td>
</tr>
</tbody>
</table>
CHAPTER V  CONCLUSION, DISCUSSION, AND RECOMMENDATIONS

Summary of the Study .............................................................. 54
Summary of Findings ............................................................... 55
Conclusions ............................................................................ 56
Discussion ................................................................................ 56
Recommendations ..................................................................... 60

REFERENCES ........................................................................... 63

APPENDICES ............................................................................ 75

Appendix A: The PLSPQ (English Version) ......................... 76
Appendix B: The PLSPQ (Myanmar Version) ....................... 80

BIOGRAPHY ........................................................................... 84
LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dunn and Dunn’s Learning Style Model Dimensions .................. 15</td>
</tr>
<tr>
<td>2</td>
<td>The Statistics of Asian English ........................................ 31</td>
</tr>
<tr>
<td>3</td>
<td>TOEFL Scores for Individual Asian Societies 2005-2006 .......... 33</td>
</tr>
<tr>
<td>4</td>
<td>Number of Students at NELC for this Study ........................... 40</td>
</tr>
<tr>
<td>5</td>
<td>Details of the Perceptual Learning Style Preference Questionnaire 42</td>
</tr>
<tr>
<td>6</td>
<td>Level of Agreement, Scores and Scales .................................. 42</td>
</tr>
<tr>
<td>7</td>
<td>The Criteria of Deciding Preferred Learning Style .................. 43</td>
</tr>
<tr>
<td>8</td>
<td>Examples of Deciding the Most Preferred Learning Style ............ 43</td>
</tr>
<tr>
<td>9</td>
<td>Interpretation of Seven Learning Style Types ........................ 44</td>
</tr>
<tr>
<td>10</td>
<td>Reliability Statistics on Different Studies of PLSPQ .............. 45</td>
</tr>
<tr>
<td>11</td>
<td>Interpretation of Academic Achievement of Students at NELC ...... 46</td>
</tr>
<tr>
<td>12</td>
<td>Data Collection Process ................................................... 47</td>
</tr>
<tr>
<td>13</td>
<td>Summary of the Research Process ......................................... 48</td>
</tr>
<tr>
<td>14</td>
<td>Frequency and Percentage of the Students’ Preferred Learning Styles at NELC .................................................... 51</td>
</tr>
<tr>
<td>15</td>
<td>Means and Standard Deviations of Academic Achievement of Students in NELC .................................................... 52</td>
</tr>
<tr>
<td>16</td>
<td>Comparison of Students’ Academic Achievement According to Their Most Preferred Learning Style ............. 52</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Conceptual framework for present study</td>
<td>6</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

This chapter presents a brief of the study that contains background of the study, statement of the problem, research questions, research objectives, research hypothesis, theoretical framework, conceptual framework, scope of the study, definition of terms and significance of the study.

Background of the Study

Learning is a two way communication where many interactions occur between teachers to students and students to students. Observing how students prefer to acquire a new language is as important as using the right instructional methods for the right learners. In order to be a successful learning, it is very important to know the learners’ readiness, learning style preferences and their academic background. It is undeniable that the most productive outcome will result when the teacher appreciates and values different learners with their various learning preferences. Successful learning is more likely to happen when the educator values, respects the variance of students and integrates its teaching and learning process (McComb & Miller, 2007). In foreign language acquisition, some students may learn effectively by listening to the teacher explaining, some may study well by seeing visual materials, some may like to study alone, and others may do well working with their peers (Bennett, 2003).

Students have different predisposition and talents, and as they have more educational experiences, they create their own preferences for how they like to learn and the
pace at which they learn (McComb & Whisler, 2007). The role of the teacher in recognizing the learners’ preference learning method is very crucial for the success of the learners. Differentiated Instruction is one of the most educational issues in order to fit with learners’ variances (Dunn, Honigsfeld, & Doolan, 2009).

The researcher is aware that there are many factors that enhance students’ achievement such as differentiation in teaching English language, observing the students’ motivation and parental encouragement. Among those factors, the researcher assumes that recognizing the perceptual learning style preferences of the students in learning English as a foreign language is one of the most crucial factors that optimize the students’ academic achievement. Although some researchers have worked on perceptual learning style preferences in some academic setting, this research is mainly focused on comparing students’ academic achievement in learning English as a foreign language according to their perceptual learning style preferences at Nelson English Language Center in Yangon (NELC), Myanmar.

Nelson English Language Centre is situated in Yangon, Myanmar. Rweel founded NELC in 2005 and there are many branches of NELC in big cities in Myanmar such as Tachiekleik, Pyin Oo Lwin, and Mandalay. Under the management of Rweel, NELC has been expanded into Nelson International English Centre (NIEC) as well. NELC has already celebrated the milestone of the school’s over 10 years of academic excellence and outstanding achievements of students. The main purpose of founding NELC is to provide the students in learning English as a foreign language and to promote English language courses in an academic context. NELC has gained a better reputation for the quality of its English courses, the satisfaction of its students and the friendly and helpful atmosphere at all branches of NELC.
Statement of the Problem

Students from NELC have different ways of acquiring knowledge and different learning styles for the same topic. The researcher found out that students have different readiness, learning style preferences and education background and sometimes the teachers fail to recognize them. Therefore, their academic achievement such as midterm and final test scores in English as a foreign language is lower. The mismatch of teachers’ introduction in learning English and the learners’ preferred learning styles lead to poor academic performance of learners’ motivation and an effective assessment system.

The researcher noticed that there is no study of learning style preferences in NELC before and the English teachers at that school do not have enough information about their students such as their learning style preferences. Moreover, the researcher believes that conducting this quantitative research about the learning style preferences will be beneficial for the teachers in comprehending their learners’ needs and learning styles and promoting their teaching strategies that match with their learners’ preferred methods of learning English. Therefore, this comparative study of students’ perceptual learning style preferences in learning English as a foreign language and their academic achievement will seek whether there is a significant difference among students’ academic achievement according to their most preferred learning style.
Research Questions

In this study, the researcher has developed the following research questions, research objectives and a hypothesis.

1. What are the perceptual learning style preferences of students in learning English as a foreign language at Nelson English Language Centre (NELC)?
2. What is the level of students’ achievement in learning English as a foreign language at Nelson English Language Centre (NELC)?
3. Is there a significant difference among students’ academic achievement according to their most preferred learning style at Nelson English Language Centre (NELC)?

Research Objectives

1. To determine the perceptual learning style preferences of students in learning English as a foreign language at Nelson English Language Centre (NELC).
2. To determine the level of students’ achievement in learning English as a foreign language at Nelson English Language Centre (NELC).
3. To determine if there is a significant difference among students’ academic achievement according to their most preferred learning style at Nelson English Language Centre (NELC).

Research Hypothesis

There is a significant difference among students’ academic achievement according to their most preferred learning style at Nelson English Language Centre (NELC) at a significant level of .05.
Theoretical Framework

In this study, the researcher followed the perceptual learning style preferences as a theoretical framework developed by Reid (1984). She developed the concept of perceptual learning style preferences.

Reid’s Perceptual Learning Style Model

Reid developed perceptual learning style preference questionnaire based on Dunn’s research outcome by putting two more learning style categories: group and individual learning styles. There are auditory, visual, kinesthetic and tactile learning styles by Dunn and he researched it with school children in the United States (Dunn, 1983 and Dunn & Dunn, 1973, both cited in Reid, 1987).

According to Reid (1998a), visual learners can learn more effectively by seeing through eyes, auditory learners by hearing, kinesthetic learners by bodily experiences, tactile learners by hands-on experiences, group learners by working with peers and individual learners by working alone. This questionnaire is not only the most relevant to foreign language acquisition study(Katsuda,2012) but also regarded as highly reliable, valid and is widely used (Renou, 2004).

Reid’s Perceptual Learning Style Questionnaire

Reid developed perceptual learning style questionnaire in 1984 and there are two parts. The first part is interviewee’s demographic information such as name, gender and class. The second part is a brief introduction; describing six types of the perceptual learning styles with 5 point Likert scales from strongly disagree to strongly agree. It has thirty questions and it covers the learner types of auditory, visual, kinesthetic, tactile, group and individual learning styles.
Conceptual Framework

This study aimed to identify the perceptual learning style preferences of students at NELC during the academic year 2018. The researcher studied if there is a significant difference among students’ academic achievement according to their most preferred learning style at Nelson English Language Centre (NELC). There are two variables in this study: independent variables such as perceptual learning style preferences and a dependent variable such as the students’ academic achievement. Figure 1 shows the conceptual framework for this study as follow:

```
Source of data  Independent Variables  Dependent Variable

Students at Nelson English Language Centre, Myanmar  Perceptual Learning Styles:  Students’ Academic Achievement (EFL test scores)

• Visual
• Auditory
• Kinesthetic
• Tactile
• Group
• Individual
```

*Figure 1. Conceptual framework for present study.*

Scope of the Study

As this study was aimed to identify the perceptual learning style preferences, the researcher identified the learning styles of students who are learning English as a foreign language in NELC during academic year 2018. The population of this study was 155 students from seven foundation level English classes. This study was to find out students’ perceptual learning style preferences, to determine the level of academic achievement in learning English as a foreign language and to determine if there is a significant difference among students’ academic achievement according to their most preferred learning style at Nelson English Language Centre (NELC). The researcher used their EFL test scores as their
academic achievement in this study. The researcher conducted this study during the academic year 2018 at NELC in Myanmar.

**Definitions of Terms**

**English as a Foreign Language (EFL)** is generally used to talk about students whose native language is not English and learn it while living in their own country and regularly speak their mother tongue.

**Learning style:** It refers to the individual’s acquisition of knowledge and skills by gathering, processing and retrieving information. In this study, the researcher used Reid’s perceptual learning style preference questionnaire to identify the learning styles of students at NELC.

**NELC:** Nelson English Language Centre located in Yangon, Myanmar.

**Perceptual learning style preferences** refers to specific ways of learning style which are the favorites in the use of the senses when learners access and interact with new information or experiences (Dunn, 1983 and Dunn & Dunn, 1979 both cited in Reid, 1987).

**Students** in this study refer to foundation level students who are learning English as a foreign language at NELC.

**Students’ academic achievement:** The outcomes of learning. In this study, the researcher used EFL test scores as students’ academic achievement.

**The PLSPQ:** Perceptual Learning Style Preference Questionnaire

- **Visual Learners:** They learn well by visual channels or by presenting visually rather than listening to an oral explanation. The visual learners have been measured by question items 6, 10, 12, 24 and 29 of the questionnaire of this research. Each item has been rated on a 5-point Likert scale.

- **Auditory learners:** They learn information more effectively by hearing it. Auditory learners benefit from direct lectures from the teachers, listening to audio materials and
channels. The auditory learners have been measured by question items 1, 7, 9, 17, and 20 of the questionnaire of this research.

- **Kinesthetic learners**: They learn most effectively when they get an opportunity to involve physically in activities. They can get benefits from participating in classroom activities, role plays and field trips. The kinesthetic learners have been measured by question items 2, 8, 15, 19, and 26 of the questionnaire of this research.

- **Tactile learners**: They learn best when they get a chance to do more hands-on experiences such as building models. The tactile learners have been measured by question items 11, 14, 16, 22, and 25 of the questionnaire of this research.

- **Group learners**: They learn more easily and more successful completing work by working and learning with their classmates. This type of learners can get the most benefits by participating in teamwork activities. The group learners have been measured by question items 3, 4, 5, 21, and 23 of the questionnaire of this research.

- **Individual learners**: They learn best when they work on their own such as individual work. The individual learners have been measured by question items 13, 18, 27, 28, and 30 of the questionnaire of this research.

**Significance of the Study**

This study will be advantageous for students, English teachers, administrators and a principal as there is no previous research about the learning style preferences conducted at this NELC before.

This study will be beneficial for students at NELC in many ways. First and foremost, if the learners know what kind of learners they are, they will be more engaged in classroom activities. Secondly, being aware of their learner types, they will control their own learning as self-regulated learners and it is one of the characteristics of lifelong learners as well. Thirdly,
the researcher believes that students’ motivation can be achieved easily when the students know what types of learners they are.

English teachers from NELC can get many benefits from this study as well. Firstly, they can adjust and modify their teaching instructions according to the needs and types of learners. Secondly, if they know about their learners well, it is more effective to help the learners to get more desirable outcomes. Thirdly, after knowing their students’ learning style preferences, they can motivate them by applying different activities in the classroom.

Not only the students and teachers can get good points from this study, but also the administrators and the principal as well. First of all, it will be helpful for them to evaluate the students’ preferred learning styles and academic achievement. Secondly, they can develop better curriculum that meets the learners’ needs. Thirdly, they can organize teachers’ training program to go well with the modified curriculum.

Lastly, the researcher believes that the future researchers who are interested to conduct research about students learning style preferences in learning English as a foreign language in Myanmar will find this study useful.
CHAPTER II

REVIEW OF RELATED LITERATURE

The researcher presented the importance of this study and its objectives in previous chapter. In this chapter, the researcher presents about the related studies, the review of the important theories and literature on learning styles. The main purpose of this chapter is to highlight and relate the important learning styles. The review of the literature includes the concept of learning styles, Carl Jung’s learning style model, Dunn and Dunn’s learning style model, Reid’s perceptual learning style preferences, Honey and Mumford’s learning styles questionnaire, and VARK learning style model. The researcher also presents about the previous studies of learning styles, application of learning styles to improve teaching styles, controversial aspects of learning styles theory, labeling of learners, English in Asian countries and the issues of proficiency, English language learning in Myanmar and background of Nelson English Language Centre (NELC) in this chapter.

The Concept of Learning Styles

Different people define the learning styles and its variation depends on the perception of learning and the environment in which the learning takes place. It is an individual’s preferences for conditions of the learning process that can affect one’s learning (Woolfolk, 2001), including where, when and how learning takes place and with what materials. Learning styles are generally the ways in which the learners can optimize their learning and the matching of teachers’ instructions and the preferences of the learners is one of the supporting factors that make the optimal learning happens. The success of learning depends on the individual learning style preferences and the teachers’ teaching instructions. Students’ learning styles are habitual and they have regular mental behavior when they learn
or apply new information to problem solving (Bennett, 2013).

Hartley (1998) defined learning styles are the way in which individuals characteristically approach different learning tasks. The teachers need to aware the importance of differentiation as different learners have different tastes in approaching the lessons. Riding and Cheema (1991) mention information is processed and represented in two dimensions and they are called wholist-analytic and verbalizer-imager. The first dimension refers to how people tend to process information as a whole (wholist) or break down into component parts (analytic). The second dimension represents the degree to which people present information as words (verbalizer) or as images (imager).

The nature of learner is various and it is mostly depend on the learners’ educational background, learners’ readiness and learners’ perception toward learning. Other factors which affect the learner differences include the learners’ cultural background, gender, and the pace of learning and social economic factor. These differences can be grouped such as biological or physical, social and cognitive differences which are features of all human beings (Hattie, 1999). Peer relation, values and beliefs are some examples of social differences and aptitude, motivation, learning strategies and intelligences are examples of cognitive differences. Among those differences, the learning style plays a vital role in learning and teaching and it is the main focus among the educators. Many researchers found out the types of learning styles and more than 20 learning style dimensions have been identified until now (Workman, 2012).

**Carl Jung's Learning Styles Model**

The researcher, theorists and philosophers have been conducting their research on how human beings learn since many years ago. Learning style is how people receive ideas and concepts analyze them and experiment them. While other learning style theory is based on the work of analytical psychologist, Jung was a Swiss psychologist who developed a
theory of psychological types designed to classify people based on their various personality patterns in 1921. Jung’s theory of psychological types focused on four basic psychological functions named extroversion/introversion, sensation/intuition, thinking/feeling, and judgement/perceiving. Jung’s dimensions can be a good tool to measure and define the various learning styles and each dimension describes a unique aspect of learning style. In other word, an individual’s own learning style may include a combination of these four dimensions. For instance, an individual learning style might include elements of extroverted, sensing, feeling and perceiving learning style and so on.

**Extroverted learning style** is the way in which the learners generate ideas and energy from other people by socializing and working in team. Some optimizing learning activities for the extroverted learners are solving the problems, assigning in collaborative works, problem-based learning and so on. The characteristics of extroverted learners are easy to identify. Firstly, they learn best through direct experience, they gather information from outside sources or from group discussions, they are willing to share their opinions and they jump right in without any individual’s guidance.

**Introverted learning style** refers to an individual who is still sociable but prefers to solve the problems on his own. Introverted learners gather information from internal sources by brainstorming, self-reflection and theoretical exploration. Some characteristics of introverted learners are that they prefer to work on their own and enjoy solitary work; they love to listen, reflect and observe from others before attempting a new skill.

**Sensing learning style** refers to the sensing learners who favored physical environment aspects. Jung mentioned that this type of learners seems to be practical and realistic, and they prefer to generate ideas through their experiences. Furthermore, they are easily adaptable to changing environment. Some characteristics include they focus on the present, they are practical and reasonable, they utilize their experiences in solving problems
and they are observable the surround environment. They may not be interested in an activity that moves too slowly and has no practical use for it (Silver, Strong, & Perini, 2000).

**Intuitive learning style** is in which the intuitive learners favor more on the possibility and enjoy generating ideas, possibilities and future outcomes. In other word, they prefer abstract thinking and imagining the future. The characteristics include they like theories and abstract ideas, more prefer to look at the big whole picture rather than the details, and enjoy new things such as challenges and situations. Not only they love argument that base on logical analysis but they are also concerned about objective truth more than fact (Silver, Strong, & Perini, 2000).

**Thinking learning style** refers to the learners who favor more on information structure and information function and use rational thinking and logical thinking when making decisions. This type of learners bases their decisions on personal ideas of fairness or justice and right or wrong. Some characteristics include they are interested in logical pattern, they hardly base their decisions on emotions and their decisions are based on reason and logic.

**Feeling learning style** is in which people with a feeling learning style focus information which is based on the emotions, Feeling learning style people are more likely to be in feelings, emotions, personal relationships, and social harmony. Some characteristics of feeling learning style includes they have a great interest in people and their feelings, they are always in tune with their own emotions and those of other people, they generate their excitement and their interest in group setting.

**Judging learning style** refers to the judging learners who can make decision quickly and confidently. Being ambiguity is not their type and they can make a firm decision. At the same time, they are very organized and structured and they hold strong opinions and enjoy following the rules.
**Receiving learning style** is another type of learning styles in which the receiving learners tend to make decision impulsively to respond to changing environment and new information and they often make impulsive decisions, do not like structure and organization, and they tend to be very flexible and adaptable according to the circumstances.

**Dunn and Dunn Learning Style Model**

One of the widely used approaches to learning styles is proposed by Rita and Kenneth Dunn (1978, 1992a and 1992b, and Dunn, 1986). They observed how students responded differently to instructional materials in schools. To illustrate an example, some students want to learn alone while others with others. There are five key dimensions which shows how an individual’s learning style differ. They are environmental, emotional support, sociological composition, physiological, and psychological elements. The different elements within each dimension are found in Table 1 and summarized below.
Table 1

*Dunn and Dunn’s Learning Style Model Dimensions (Dunn, R., Thies, A., Honigsfeld, A. 2001)*

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Elements</th>
<th>Key Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>Sound Light</td>
<td>Do students prefer a noisy, busy, well lit, warm environment or a quiet,</td>
</tr>
<tr>
<td></td>
<td>Temperature</td>
<td>subdued, cooler environment?</td>
</tr>
<tr>
<td></td>
<td>Seating Design</td>
<td>Should the learning environment be formal (e.g. desks and chairs) or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>informal (e.g. pillows)?</td>
</tr>
<tr>
<td>Emotion</td>
<td>Motivational support</td>
<td>Do students need a lot of emotional support?</td>
</tr>
<tr>
<td></td>
<td>Persistence</td>
<td>Will they persist on learning tasks?</td>
</tr>
<tr>
<td></td>
<td>Individual responsibility</td>
<td>Can they assume individual responsibility?</td>
</tr>
<tr>
<td></td>
<td>Structure</td>
<td>Do they need lots of structure?</td>
</tr>
<tr>
<td>Sociological</td>
<td>Individual</td>
<td>Do students learn best alone or working with someone?</td>
</tr>
<tr>
<td></td>
<td>Pairs or Teams</td>
<td>How much guidance from adults do they want or need?</td>
</tr>
<tr>
<td></td>
<td>Adult</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Varied</td>
<td></td>
</tr>
<tr>
<td>Physiological</td>
<td>Perceptual</td>
<td>Is the student an auditory, visual, tactual, or kinesthetic learner?</td>
</tr>
<tr>
<td></td>
<td>Intake</td>
<td>Does the student like to snack while learning?</td>
</tr>
<tr>
<td></td>
<td>Time</td>
<td>When is the optimal time for learning?</td>
</tr>
<tr>
<td></td>
<td>Mobility</td>
<td>Does the student require freedom to move during learning?</td>
</tr>
<tr>
<td>Psychological</td>
<td>Global</td>
<td>How does the learner attack problem, globally or analytically?</td>
</tr>
<tr>
<td></td>
<td>Analytical</td>
<td>Does the student jump into problems or pause to reflect before starting?</td>
</tr>
<tr>
<td></td>
<td>Impulsive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reflective</td>
<td></td>
</tr>
</tbody>
</table>

In environment dimension, the Dunns noted that different learners have different styles of learning environment. Some prefer a warm, brightly lit place with desks, where they can have verbal interaction with their peers, while others preferred more informal relaxing environment like cooler, and more lighting with a quieter place. Most teachers believe that they have limited amount of control over these elements; Dunn and Dunn describe how the learners can get affected by this environment dimension.
The **emotional** dimension refers how much the learners are self-directed in learning. To illustrate this example of this dimension, there is a self-starter who is given a project and he is the one who monitors and paces himself until he accomplishes the project. And there is another student who need considerable support from his teachers or classmates and has to have this project in small chunks with specific due dates. It will be disastrous for the second student without periodic checks for his project. Teachers’ supports pay a critical role in students’ learning in this dimension. Another learner may achieve better because he or she is highly committed on certain tasks (Dunn, 1984).

In **sociological** dimension, it refers to how students differ depends on how they interact with their peers. Some like to work on their own while others prefer to work with their classmates. Others prefer the more traditional approach such as learning from an adult. Teachers can vary their teaching instructions to meet the various learning styles.

Dunn identified another important dimension which is related to individual differences in terms of **physiological** preferences. Some are visual; others prefer auditory channel. Some want to learn by moving around and doing some experiments. Time is another important element in this dimension. Some learn better in the morning while others during night time.

**Psychological** is the last learning style dimension. This dimension refers to how learning problems are solved by the students. Some students handle the problems globally by looking at the whole big picture, while others prefer to manage individual elements of a problem separately. Similarly, some students like to jump into the problems and figure things out as they go along, while others are more reflective by planning strategies before jumping into the problems (Dunn, 1984).
Reid’s Perceptual Learning Style Preference

This learning style preference was originated from Dunn and Dunn’s four learning styles preferences: Visual, auditory, kinesthetic and tactile. Reid (1984) added two more learning style preferences: group and individual who are classified as sociological factors in Dunn and Dunn’s model. According to Reid (1995), three main learning styles named affective/temperament, cognitive and sensory or perceptual learning styles are widely recognized. **Affective learning style** is about individual’s personality. It refers to the learners’ feeling, values and personality (Renou, 2011). **Cognitive learning styles** are the ways people think, organize and solve the problems. There are two more categories under cognitive learning styles named field-independent and field-dependent. In **sensory learning style**, there are two categories named perceptual learning style and environmental learning style. Under perceptual learning styles, there are six learning styles named auditory, visual, tactile, kinesthetic, individual and group.

According to Reid (1987), Dunn and Dunn found out that the young children are originally tactile and kinesthetic learners. Dunn (1990) discovered that children’s auditory and visual skills started to grow when they are about ten years old. Reid (1987) defined the perceptual learning style preferences as how learners interact with the environment and use different senses to deal with new information.

The researcher has used Reid’s perceptual learning style as a theoretical framework. Perceptual learning style preference is the characteristics of individual different senses, natural and habitual when individual retrieve and interact new information and new facts (Reid, 1987). There are six different categories of major learning styles in Reid’s model and the degree had been divided for major level, minor level and negative level. Major level refers to the learners under this level can learn the related learning style most effectively. In
other word, the major level means the highest preferences. The learners under minor level can conduct the related learning style to some extent but it is not necessarily linked to the most effective learning. The learners under negative level will learn negatively which means the related learning style does not work for the learners. There are six learning style preferences and they are as follow:

**Visual learning style preference** refers to the learners, who easily understand the information by seeing the graphics in books or power point slides. They learn better by visually presented instead of listening to the lectures. To optimize the learning for visual learners, taking descriptive notetaking during the lecture can visualize them. They like to have first row seating in the classroom and see the teacher’s nonverbal cues such as body language to understand the lesson.

**Auditory learning style preference** refers to the learners who learn more by listening to the lectures in the class and they remember information when it has been explained to them in discussions or interviews. In other word, the auditory learners like to find out information by the means of pitch, speed and emphasis. In the classroom, they enhance their understanding by reading out loud and they have a limited understanding on written information. In order to help the auditory learners to enhance their learning, the teachers can use audio lingual method and drill the words in the classroom.

**Kinesthetic learning style preference** refers to the learners who learn the best when he or she has a chance to physically involve in classroom activities, field trips or role playing. They prefer physical experiences rather than listening to the lectures and reading the books. The teachers can increase the kinesthetic learners’ stimuli by assigning classroom activities and hand on approaches. This type of learners inclines to have a difficulty on staying on the target and have unfocused sometimes.
Tactile learning style preference refers to the learners who optimize their learning by hands on experiences such as laboratory experiments, touching the materials and building the models. The teachers can support the tactile learners by creating a learning environment where the learners have a chance to apply their hands to conceptualize the lessons. This type of learners is good at drawing designs and likes to doodle while listening the lectures. They may find it is hard to sit still for a long time in the classroom.

A group learning style preference refers to the learners who like to share their ideas to other people in the group discussion or in the class. They like to get the ideas from other people as well and they value group interaction. They can achieve learning effectively when the teachers assign them to work class activities in group. The teachers can increase the learners’ confidence by creating some activities where they can share their ideas and learn from others as well.

Individual learning style preference refers to the learners who learn best on their own instead of share ideas with other people. Their learning process is better when they work alone and process the new information. Unlike the group learners, the individual learners prefer study on their own and think it is the best way they can optimize their learning. The individual learners tend to concentrate more than the group learners.

Reid’s Perceptual Learning Style Preference Questionnaire

Perceptual learning style preference questionnaire (PLSPQ) which discovers the types of learners was firstly introduced by Reid in 1984. The PLSPQ was developed in two pilot studies (Reid,1990). The first pilot study was conducted with two groups: native English speakers and ESL students and the second pilot study was conducted with solely on ESL students after some revision. There are two parts in the PLSPQ. The first part is the
interviewees’ demographic information which includes name, gender, and class. In second part, it has a brief introduction of the questionnaire which describes the perceptual learning styles have been classified into five levels: strongly disagree, disagree, undecided, agree, and strongly agree. Each level carries points. For instance, if the interviewee chooses strongly disagree, it has 1 point for that item and if he chooses strongly agree, it has 5 points for that item. There are six types of learners: auditory, visual, kinesthetic, tactile, group and individual learners in the PLSPQ and all 30 questions cover these types of learners.

Many researchers introduce many different learning style surveys. For instance, the learning style survey (LSS) was introduced by Cohen, Oxford and Chi and there are 110 questions which cover the learners’ perceptual and physical factors. Unlike the learning style survey (LSS), Reid’s PLSPQ addresses on the learners’ perceptual preferences in second language learning field. According to Renou (2011), Reid’s PLSPQ was the first well known instrument to assess the learners’ perceptual learning style preferences and been broadly used in many other research until now.

Honey and Mumford’s Learning Styles Questionnaire

Honey and Mumford’s learning styles questionnaire is grounded in Kolb’s experiential learning model. The Learning Style Questionnaire (LSQ) was widely used as an alternative to Kolb’s Learning Style Questionnaire (LSQ) and was applied with management trainees. According to Honey and Mumford (1992), there are four different learning style measured by the LSQ is as follow:

Activists (Kolb’s active experimentation) are open minded, enthusiastic learners and they do not like repetition and they learn best by actively participating and doing instead of reading or listening to other people. The activists like to act first but consider the
consequences later and they are the ones who have no bias in new experiences. They like to brainstorming and challenging themselves in new experiences. The better they learn when they have the more chances of learning by doing.

**Reflectors** (Kolb’s reflective observation) like to observe other people and listen attentively others’ opinions. They are the types of learners who love gathering information first before making decisions. As a result, it makes them to be slow decision makers. They are cautious and thoughtful people who like to view from many different perspectives before making any conclusions.

**Theorists** (Kolb’s abstract conceptualization) have very well organized minds and they are willing to observe others until they get a clear conclusion on their observations. They are perfectionists and they will always thrive to get the things into neat and tidy. They think the problems logically. They love to observe, adapt and integrate their observation into frameworks (Honey & Mumford, 1986).

**Pragmatists** (Kolb’s concrete experience) learn better when they have chances to try out and practice and they like the concepts that can be applied in realistically and practically. They are the types of learners who always like to seek out new ideas. They see the problem as an opportunity that makes them grow and always trying to be practical.

**VARK Learning Style Model**

There are three main ways information enters into your brains, sight, hearing and touch, and which one you use the most is called your learning style. According to Fleming (2001), there are four major learning styles as follow:

**Visual** learners learn by sight and prefer to see demonstrations such as diagrams, objects and pictures. They like to picture words they heard and concept them as images or pictures. They are easily distracted in lecture where there is no visual. They can
get benefits from using charts, maps, notes and flashcards during studying.

**Aural** learners prefer to hear information spoken and can absorb lectures with little effort. They like playing background music when they are studying and they like to read aloud to themselves. They tend to gain more interests in reading. According to Miller (2001), loud reading and mouthing help this type of learners remember information.

**Read/Write** learners can absorb a lecture by reading and writing information. Their writing will help them to remember and conceptualize. According to Drago and Wagner (2004), this type of learners likes taking notes. They optimize their learning by taking notes from lectures and other reading materials.

**Kinesthetic** learners prefer touch which is their primary mode for getting information. Activity such as role playing can support them to learn and remember things better and they can optimize learning by physically involving in the activities.

**Previous Studies of Learning Styles**

Many researchers are aware the importance of how people want to learn their second language. There are many studies which discover the relationship between the learning styles and their achievement or the relationship between the learning styles and the learners; motivation. Reid (1987) conducted a large scale survey of perceptual learning style preferences with 1300 students who were studying English in the United States. Those students have been asked to answer their perceptual learning style preferences in learning English as a second language.

According Reid (1987) findings, the most preferred learners are kinesthetic and tactile learners. Most of them have a negative degree in group style and she also found out that cultural factors affect the learners’ perceptual learning style preferences. Reid claimed that
major differences are also influential towards perceptual learning style preferences. To illustrate an example, student whose major is music may enjoy in auditory learning style while student whose major is engineering enjoys more in tactile learning style.

According to Dunn and Dunn (1978), the percentages of auditory learners are 20-30%, 40% for visual learners, 30-40% for tactile/kinesthetic or visual/tactile learners. Price, Dunn and Sanders (1980) discovered that very young children are kinesthetic and tactile learners and they gradually developed their visual strengths in their elementary grades. When they are in grade 5 or grade 6, their auditory strengths develop and they can learn and maintain through auditory sense. Barbe and Milone (1981) found out that visual or mixed learners are 30%, auditory learners are 25%, and kinesthetic learners are 15%. Carbo (1983) investigated the perceptual learning styles in reading and found out that good readers prefer to learn through visual and auditory senses and poor readers prefer to learn through kinesthetic and tactile learning.

Melton (1990) conducted the PLSPQ with 331 Chinese university students and found out that most students favored kinesthetic, tactile and individual learning styles and disfavored group learning style. Hyland (1993) investigated the PLSPQ with Japanese students and found out that they favored auditory and tactile styles and disfavored visual and group styles. Jones (1997) found out that his 81 Taiwanese university students favored kinesthetic and tactile learning styles and disfavored individual learning styles.

Many educators are aware the importance of learning style concepts and there are many studies about the relationship between the learning styles and the students’ achievements. By knowing the learners’ perceptual learning style preferences, the teachers can adjust the lesson plan, instructional strategies and curriculum. Finely (2000) conducted a study on the learning styles and learning achievements with the high school students. In his finding, 81% of the students preferred to actively participate in the classroom and they are
kinesthetic learners. According to the finding, kinesthetic learners learn better and achieve higher than the passive learners in the classroom. In addition, the result showed that 64% of the students could become global learners when they get opportunity to learn with the relevant pictures of the subject.

A study in Turkey the Orhun and Orhun (2005 & 2006) conducted the relationship of learning achievement with 142 students’ preferred learning styles. According to the finding, physics students had a significantly different achievement than any other students. Wilson-Hull (2008) investigated the learning styles, their impacts on teaching process and which learning styles were addressed in lesson plan, assessment and instruction at the middle school level in Mississippi Delta Region. According to the finding, the learning styles which are addressed lesson plan, instruction and assessment enhance educational achievement.

Juris, Ramos and Castaneda (2009) conducted a study about whether the students’ learning styles match with the teachers’ teaching styles at private and public school in Columbia. There were 254 students and 9 teachers in this study and the result showed that the most preferred learning style is kinesthetic, followed by tactile and then auditory learning style. In addition, the study found out that the teachers did not match their teaching styles according to the students’ most preferred learning styles.

La, San (2014) conducted a comparative study of ethnic students’ learning styles in learning Burmese language and their achievement in selected schools in Pyin Oo Lwin, Myanmar. There were 70 respondents of PLSPQ who studied in grade 11. In his finding, the mean scores of the students were 27% for tactile learners, 23% for auditory learners, 23% for kinesthetic learners, 17% for individual and 10% for group learners.

Swartz (2015) conducted the PLSPQ with 113 students at Pan Asia International School in Bangkok, Thailand. In his study, the most preferred learning styles of grade 6 to 8 middle school students is 26.5% in group, 22.1% in mixed, 13.3% in kinesthetic, 10.6% in
individual and auditory, 9.7% in tactile and 7.1% in visual. Tian (2016) conducted a comparative study of motivation and perceptual learning style preferences in learning Chinese as a foreign language among grade 5 to 8 students at one of the international schools in Thailand. In her finding, the most preferred learning style was kinesthetic (40.21%), and the least preferred learning style was individual (31.24%).

**Application of Learning Styles to Improve Teaching Styles**

It is a well-accepted notion that the students have different learning styles and preferences in learning through each level of education. As a result, there is a debate whether the teachers’ delivery method or teaching styles in the classroom should be matched or differentiated according the individual’s learning style in order to optimize learning. Therefore, it is important for teachers to reflect their teaching styles and it is needed to modify it to match with all the learning styles in the classroom. It is believed that multi-style teaching is the one of the solutions to suit with all the learner types. Felder (1993) has claimed that a teaching paradigm which supports and addresses multiple dimensions of learning styles is the best practice to be modelled; as such an approach encourages the learners to increase self-efficacy.

The teachers can achieve their learning objectives more easily when they instruct in a way which includes different learning styles instead of a single learning style. Furthermore, the learners have more chances to expand their own range of learning styles when the teachers use multiple different learning instructions. The ultimate goal therefore from teaching should be to instill within students the skills to recognize and react to various styles, so that learning is maximized regardless of what the environment is (Robotham, 1995). It is import not only for teachers to apply multi-style in the classroom to fit with the individual learning styles but also the students themselves need to adapt their learning styles to align with the teachers’ delivery methods in the classroom.
Reid (1987) found out that when there is a mismatch between teacher’s delivery style and the students’ learning styles, a considerable failure in the learning process will be detected. Furthermore, it has a negative effect on the learners such as a great deal of frustration and de-motivation. If the teachers’ instructional strategy in the classroom matches to the student’s learning styles, it will be beneficial for the students to experience the successful learning and for the teachers to optimize the learning process. Nevertheless, it will be detrimental in the learning process when there is a mismatch between teaching styles and learning styles. It has widely acknowledged that matching student learning style to instructor teaching style can hugely improve the overall quality of the student experience and learning success (Bristow et al, 2014).

It is important to be aware of the consequences when the teaching styles and learning styles do not align. It is a major concern for researchers when there are some criticisms on matching the teacher’s delivery style and the students’ learning styles. Peacock (2001) claimed that a mismatch between teaching style and learning style can lead to learning failure, limitation of learners’ motivation and frustration.

Therefore, it is evident that identifying and accommodating the learning styles can be beneficial to both the students and the learners but there might be a huge consideration of what will best benefit for the learners. Should the teachers match their teaching styles to align with the specific needs of the particular learners, or apply the teaching style which reach the maximum number of students and challenge the students to expand and develop their learning styles by stepping outside their comfort zones?
Controversial Aspects of Learning Styles Theory

Many educators have been arguing if the theories of learning styles are actually applicable in the classroom and their reliability and validity issues. Willingham (2012) claimed that it was wrong to categorize the students under each learning styles in order to enhance learning as not every student is the same. During his interview with American Federation of teachers, he mentioned that all types of learners are related to each other and they remember the stories consistently despite their different perceptual learning preferences. Furthermore, he discussed about the cognitive science behind how people listen to stories and how there is no science to support learning styles. Stahl (2012) concluded about the learning style is that most studies which are supporting learning style theories are not based on reliable sources. He also mentioned that there is a big difference between learning styles for learning preferences and many people mistake learning preferences for learning styles.

The researchers claimed that the theories of learning styles have weakness in accumulated evidence for reliability and validity. Curry (1990) argued that the theory of learning style has three main controversial issues. Firstly, the learning style definitions are confusing. Secondly, they have lack of evidence in reliability and validity measurement. Thirdly, there is a problem like how to identify accurately that the adaption of teaching styles will be beneficial for the learning styles. Kirby & Pask (1988) argue that the best learning style for understanding instruction is the absence of any identified style or even any style-like consistency in approach.

Another issue that the researchers are arguing is that there are many components that classify the learning style preferences. To illustrate an example, there are three perceptual leaning styles: visual, kinesthetic and tactile (Dunn, Dunn & Price, 1975, as cited in Renou, 2008). There are three classifications of learning styles Keefe’s theory such as
Kinesthetic/psychomotor, visual/spatial, and auditory/verbal (Keefe, 1979, as cited in Renou, 2008). According Reid (1995), there are visual, auditory, kinesthetic, tactile, individual and group learning styles. There are many variations in classifying the learning styles among the researchers. Researchers studied the overview of learning style models and identified 71 models of learning style published from 1902 to 2002 (Hall & Moseley, 2005, as cited in Renou, 2008). It is not only many classifying in learning style components but also those classification is difficult to measure. Moreover, it is difficult to form essential factors to be measured (Fujita, 2008, as cited in Katsuda, 2012).

Although there are some instruments used for measuring the learning styles, most of them fail to measure the same criteria. For instance, some instruments are measuring for perceptual styles while others are used to measure the cognitive styles. According to Scott (2010), the researchers invented a variety of instruments to assess the learning style. There is no possible way to integrate all the different theories, models and ideas into one group of learning style (Scott, 2010).

The main purpose of researching learning style is to optimize learning but some researchers claimed that learning styles cannot provide as many benefits as we expected. Spoon and Shell argued that learning style supports mostly the achievement of high school students and less support on adult learners. The reason why learning style doesn’t not support on adult learners is that it might be different in age and other situational factors such as class and subject (Spoon and Shell, 1998, as cited in Brown, 2003). Although there are many theories of learning styles, but there is not enough research and studies that used an experiential methodology. The validity of learning styles applied in the classroom is limited (Pashler, Daniel, Rohrer, and Bjork, 2009, as cited in Katsuda, 2012).
Labeling of Learners

It is a major concern for the researchers to label the learners under the categorizing of the learning styles. Some researchers claimed that one of the reasons is the students are likely to be classified by a particular learning style such as visual or auditory learners when they have some difficulty in their academic learning process in terms of the lesson or the subject they learn in the classroom. Labeling of learners can obstruct the real ability of the students. Scott (2010) mentioned that this kind of labeling could become self-fulfilling prophecy. The teacher’s expectations on the student’s behavior could actually cause such student behavior to happen and it will limit the student’s potential and unintentionally decide what they can and cannot do in the learning process (Scott, 2010).

Some researchers claimed that some students like to label themselves in some situation such as learning difficulty. Learning style: the debate (n.d.) argued that labeling on the learners could be used by some learners as an excuse for their failure and students could use as a reason to blame teacher’s instructions that do not match with their learning styles. The main purpose of learning style is to optimize learning but if the teachers labelled the students according to their learning styles, it could have a negative effect on the students’ performance. Some researchers show that students with kinesthetic or tactile learning styles are likely to be low academic achievements learners (Workman, 2012). When teachers categorize their students according to their learning styles, it could encourage the teachers to use some specific teaching styles and it will limit the students’ potential in leaning process. Reid(1987) also claimed that to use one student as a stereotype without considering the social backgrounds of this student, it is not wise to apply learning style strategies in the classrooms.
English in Asian Countries and the Issues of Proficiency

The importance of English in Asian countries has been described widely in the media and the emergence of distinct differences of Asian English has played a critical part in the global story of English. Bolton (2008) distinguished Asian countries into two groups; ‘outer-circle’ English using societies where English is used as English as a second language and international uses and ‘expanding-circle’ countries where English is traditionally had the status of a foreign language that is English as a foreign language. Some south Asian countries such as Bangladesh, Sri Lanka Nepal and India and some Southeast Asian countries such as the Philippines, Malaysia, and Singapore are the major ‘outer-circle’ Asian society. Historically, most countries in ‘outer-circle’ Asian societies have been colonized by British such as Myanmar, Brunei, Malaysia and Hong Kong. In this section, the researcher will discuss the statistics of English across Asia, the emergence of Asian English and the issue of proficiency in Asia.

The language survey has been conducted in Asian countries such as Hong Kong, the Philippines, China and Japan. In Hong Kong, 2.8 % of the population mentioned to speak English as the usual language while 41.9% claimed knowledge of English as another language, giving overall total almost 45 % for the whole community in the 2006 by census (Hong Kong government, 2007). In the Philippines, the survey has been conducted by Social Weather Stations who provide a sound evidence of self-assessed proficiency. In 2006 survey described that 65% of the Philippines described to understand and to read English, 48% of the population described to write English, 32% of the population described to speak English (Social Weather Stations, 2006). In China, the overall estimate for English teachers at all level was around one million, while the total of those learning English was thought to be around 250 million (McArther, 2003). The statistics of Asian English was shown in the following table.
Table 2
The Statistics of Asian English

<table>
<thead>
<tr>
<th>Society</th>
<th>Approx. population (million)</th>
<th>% of English speakers</th>
<th>Approx. totals (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer Circle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>150</td>
<td>5</td>
<td>7.5</td>
</tr>
<tr>
<td>Bhutan</td>
<td>2.3</td>
<td>5</td>
<td>0.1</td>
</tr>
<tr>
<td>Brunei</td>
<td>0.4</td>
<td>39</td>
<td>0.1</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>6.9</td>
<td>45</td>
<td>3.1</td>
</tr>
<tr>
<td>India</td>
<td>1,100</td>
<td>30</td>
<td>330</td>
</tr>
<tr>
<td>Malaysia</td>
<td>25</td>
<td>32</td>
<td>8.0</td>
</tr>
<tr>
<td>Nepal</td>
<td>29</td>
<td>30</td>
<td>8.7</td>
</tr>
<tr>
<td>Pakistan</td>
<td>165</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>Philippines</td>
<td>91</td>
<td>48</td>
<td>44</td>
</tr>
<tr>
<td>Singapore</td>
<td>4.5</td>
<td>50</td>
<td>2.2</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>21</td>
<td>10</td>
<td>2.1</td>
</tr>
<tr>
<td>Expanding Circle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burma (Myanmar)</td>
<td>47</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td>Cambodia</td>
<td>14</td>
<td>5</td>
<td>0.7</td>
</tr>
<tr>
<td>China</td>
<td>1,322</td>
<td>25</td>
<td>330</td>
</tr>
<tr>
<td>Indonesia</td>
<td>234</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Japan</td>
<td>127</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Laos</td>
<td>6.5</td>
<td>5</td>
<td>0.3</td>
</tr>
<tr>
<td>South Korea</td>
<td>49</td>
<td>10</td>
<td>4.9</td>
</tr>
<tr>
<td>Taiwan</td>
<td>23</td>
<td>10</td>
<td>2.3</td>
</tr>
<tr>
<td>Thailand</td>
<td>65</td>
<td>10</td>
<td>6.5</td>
</tr>
<tr>
<td>Vietnam</td>
<td>85</td>
<td>5</td>
<td>4.2</td>
</tr>
</tbody>
</table>

*Note. From Bolton, 2008.*

The existence of localized forms of English in Asian countries is commonplace such as Indian English, Philippine English and Singapore English. At linguistics level, it has
focused and highlighted the distinct features of individual differences in terms of phonology, lexis and grammar. In phonology level, it includes the lack of distinctions between short and long vowels, the realization of diphthongs as monophthongs, consonant cluster reduction, a reduction of vowel contrasts, and the use of syllable–timed intonation (Schneider, 2007). In grammar level, features found in Asian varieties include omission of third person singular-s, the lack of plural marking, the weakening of count/mass distinctions with nouns such as furnitures.

Most Asian societies have moved away from labor intensive mass production to higher–level service industries, there is a high demand of proficient English speakers in the industry. Furthermore, the terms such as Indian English, Singapore English and Philippines English have negative reactions from the political and business leaders. In Singapore and Hong Kong, government has conducted many campaigns to improve standards of English at work. One of the useful sources of proficiency results such as Test of English as a Foreign Language (TOEFL) is a reliable statistics. The following table describes the average TOEFL scores for individual Asian societies.
Table 3

TOEFL Scores for Individual Asian Societies 2005-2006

<table>
<thead>
<tr>
<th>Rank</th>
<th>Countries</th>
<th>Paper-based ( Computer-based)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Singapore</td>
<td>_ (255)</td>
</tr>
<tr>
<td>2</td>
<td>India</td>
<td>586 ( 236)</td>
</tr>
<tr>
<td>3</td>
<td>Malaysia</td>
<td>572 (232)</td>
</tr>
<tr>
<td>4</td>
<td>Philippines</td>
<td>566 (238)</td>
</tr>
<tr>
<td>5</td>
<td>Pakistan</td>
<td>562 (238)</td>
</tr>
<tr>
<td>6</td>
<td>Bangladesh</td>
<td>557 (228)</td>
</tr>
<tr>
<td>7</td>
<td>China</td>
<td>557 (216)</td>
</tr>
<tr>
<td>8</td>
<td>Sri Lanka</td>
<td>548 (234)</td>
</tr>
<tr>
<td>9</td>
<td>Hong Kong</td>
<td>539 (216)</td>
</tr>
<tr>
<td>10</td>
<td>South Korea</td>
<td>538 (218)</td>
</tr>
<tr>
<td>11</td>
<td>Nepal</td>
<td>535 (218)</td>
</tr>
<tr>
<td>12</td>
<td>Indonesia</td>
<td>535 (214)</td>
</tr>
<tr>
<td>13</td>
<td>Vietnam</td>
<td>534 (207)</td>
</tr>
<tr>
<td>14</td>
<td>Taiwan</td>
<td>530 (206)</td>
</tr>
<tr>
<td>15</td>
<td>Burma( Myanmar)</td>
<td>518 (206)</td>
</tr>
<tr>
<td>16</td>
<td>Cambodia</td>
<td>_ (206)</td>
</tr>
<tr>
<td>17</td>
<td>Thailand</td>
<td>500 (200)</td>
</tr>
<tr>
<td>18</td>
<td>Japan</td>
<td>497 (192)</td>
</tr>
</tbody>
</table>

Note. From Bolton, 2008.

English Language Learning in Myanmar

There are many articles and journals that mention the benefits of learning English and those benefits include having scholarship to do further study abroad and getting promotion at the workplace. There are approximately two billion people use English for communicating with each other and about 450 million speak English as a first language and another one
billion use English as a foreign language. Generally, one-third of the world population is speaking English and there will be more people using English in the future. After the first general election in 2010, one of the South East Asian countries, Myanmar, has emerged from decades of international isolation, civil conflict and classification as one of the poorest nations in the world. In 2009, Myanmar is included as one of the Association of South East Asian Nations (ASEAN) countries and it officially recognized English as the operational language of the organization (Kirkpatrick, 2014).

English language education helps Myanmar citizen to enhance the ability to participate in world economic system and it has become one of the important factors in continued development in Myanmar. Myanmar government decision makers as well as Myanmar academics highlight the urgency of English language pedagogy reform to improve national education system in Myanmar. According to Brutt-Griffler (2002), there are four criteria in defining development of English as an international language in Myanmar. Firstly, English is a wildly used communicative tool to contact with the business, cultural, scientific and intellectual community. Secondly, English is used alongside with Myanmar language within multilingual communities. Thirdly, English is used by all sectors and levels in the society. Lastly, English as an international language spreads through speech communities acquiring English.

The challenges of English language learning in Myanmar are similar patterns and dilemmas with other world regions. Lambon (2009), for example, describes the challenges of English language instruction in the Chad republic such as limited ability of educators to teach English language skills in the areas of speaking, listening and reading. De Segovia (2008) noted the challenge of English language teaching in Thailand as disconnection between curriculum policy and classroom practice. Nimmannit (2009) describes the barriers of English language teaching in China are large class size, high level of pressure to get good
results within the examination system, insufficient teaching materials, limited number of dedicated and motivated language instructors.

In order to improve quality of English language teaching in Myanmar, it is needed to find out the challenges the educators encountered in English language teaching field, the reasons behind those challenges and the recommendations for English language educators. It is always debatable to promote contemporary English pedagogical practices in Myanmar context due to the gap between English proficiency between educators and the students (Soe, 2015). In her study of contemporary trends and challenges of English language teaching in Myanmar, it was found out that some students have obtained high level of fluency and accuracy by watching Hollywood films and attending private English language schools. As a result, they can speak confidently in English and have more fluency and accuracy than the educators. This gap created the imbalance between the teacher and the students’ relationship and it was compounded by disparity between curriculum policies and classroom practices and the new generations of students who were born in modern technology.

Many academics give recommendations regarding the quality of English language teaching in Myanmar. Those recommendations derived from the analysis of the challenges of English language teaching in Myanmar. Firstly, English language educators need to reflect on their teaching pedagogy and classroom practices through coaching, observation and feedback to achieve effective teaching. Many educators in Myanmar are overload with daily schedule and they have no dedicated time to reflect on their own teaching. Secondly, reflective practice is important in order to achieve quality English language learning. It is needed to monitor and reflect on the effectiveness of classroom practice as it would be useful to address many barriers faced by English language educators in Myanmar. Thirdly, doing classroom action research among the educators would be beneficial and it can motivate them and improve their instructional strategy in the classroom. By doing classroom action research, the educators can
their professional learning needs as well as those of their learners. Lastly, including English language educators in decision making process for curriculum, educational policy and program reform can have a huge impact on enhancing the effectiveness of English language teaching in Myanmar. Only the educators who are teaching English in Myanmar know very well about the challenges of English language teaching so that they can discover the problems more than any other people.

**Background of Nelson English Language Centre**

Learning English language opens doors in students’ lives and show the direction to them for a better future. This opportunity is urgently needed for students in Myanmar. In order to help Myanmar people to access with quality English language learning, Nelson English Language Centre (NELC) was founded by Rweel in 2005. Its mission is to provide high quality English language education and to keep up with the latest teaching method supported by the very best teaching resources available. Its objective is to produce the best outcomes. NELC has been striving to its excellence for over 13 years and offer many educational services. There are many courses offered in NELC depending on the age level. It has preschools, young learner classes and adult classes. Children from 3 to 5 years old can join preschools in NELC. Students who are between 5 to 15 years old can join young learner English classes as well as Cambridge examination preparation courses such as starters, movers, flyers, Key English Test (KET), and Preliminary English Test (PET). Adult communicative English courses have many levels such as foundation level class, Leve 1, Leve 2, Level 3, Level 4 and Level 5. Aside from communicative English classes, there are listening and speaking classes and international examination preparation courses for the International English Language Testing System (IELTS) and Test of English as a Foreign
Language (TOEFL) classes. NELC is offering one to one private courses and corporate
courses where the course is tailored to the needs and requirements of the staff of the company
and business industry.

NELC has its school and language branches around Myanmar such as in Nay Pyi
Daw, Mandalay, Pyin Oo Lwin, Tachileik, and Lashio. NELC is composed of qualified and
dedicated teachers who have many years of teaching experiences. Teachers from NELC
graduated from overseas and local universities and hold international teaching diplomas and
certificates such as Teachers of English to Speakers of Other Languages (TESOL). NELC
teachers are expected to be professionalism, cooperative in providing suggestions and
comments to effectiveness of the school, and demonstrate the proper use of teaching
pedagogy according to the requirements of the learners.

Students from NELC have the rights to get the best education the school can provide,
expect courtesy, fairness and respect from the staff and other students, and get reasonable
course fees. There are many responsibilities of NELC students such as speaking only English
in the school compound, conduction self-discipline and being punctuality for the classes.
NELC offers high quality course books and teaching materials, the classroom with teaching
aid such as audio-visual aid with projectors, free Wi-Fi, a clean school canteen and a fully
furnished library and spacious study areas for all NELC students.

The researcher has discussed the perceptual learning style preferences in depth,
English language learning in Asian countries and the issues of proficiency, English language
learning in Myanmar and background of Nelson English Language Centre (NELC) in this
chapter. In the next chapter, the researcher will discuss the research design, population and
sample, research instrument, collection of data, data analysis and summary of research
process.
CHAPTER III

RESEARCH METHODOLOGY

In previous chapter, the researcher has reviewed the relevant literature related to learning styles, perceptual learning style preferences, English language learning in Myanmar and background of Nelson English Language Centre (NELC). The main purpose of this chapter is to describe research design and method. This chapter presents the research design, population and sample, research instrument, collection of data, data analysis and summary of research process.

Research Design

This study was designed as a quantitative and comparative research by using both descriptive and inferential statistics. The researcher found out the perceptual learning style preferences of 155 students from seven foundation level English classes by using the Perceptual Learning Style Preferences Questionnaire (PLSPQ), their level of achievement in learning English as a foreign language and then the researcher used one-way analysis variance (ANOVA) to determine if there is a significant difference among students’ academic achievement according to their most preferred learning style at NELC.

The researcher used Perceptual Learning Style Preference Questionnaire (PLSPQ) in this study and it has three parts in it. In part one; there is a cover letter to explain the purpose of the research. In part two; there is demographic information of students at NELC and in part three, there are 30 items of PLSPQ which determine the perceptual learning style of students who are learning English as a foreign language at NELC.
Population

The population of this study was 155 students who are learning English as a foreign language at NELC during the academic year 2018. The researcher used all students from seven foundation level English classes at NELC during the academic year 2018.

Sample

A population sampling method was used in this study. Therefore, all 155 students who are learning English as a foreign language from seven foundation level English classes during the academic year 2018 at NELC were included and below the table is the detailed students’ number in each class.

Table 4

*Number of Students for this study*

<table>
<thead>
<tr>
<th>Class</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1</td>
<td>19</td>
</tr>
<tr>
<td>Class 2</td>
<td>23</td>
</tr>
<tr>
<td>Class 3</td>
<td>17</td>
</tr>
<tr>
<td>Class 4</td>
<td>30</td>
</tr>
<tr>
<td>Class 5</td>
<td>21</td>
</tr>
<tr>
<td>Class 6</td>
<td>24</td>
</tr>
<tr>
<td>Class 7</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>155</td>
</tr>
</tbody>
</table>
Research Instrument

There are two research instruments in this study. Firstly, the researcher used Perceptual Learning Style Preference Questionnaire (PLSPQ) developed by (Reid, 1984) (see Appendix A). The questionnaire was used to find out the students’ perceptual learning style preferences in learning English as a foreign language at NELC. Then, the researcher used the students’ EFL test scores as academic achievement to determine their level of achievement in learning English as a foreign language. In this study, the researcher examined if there is a significant difference among students’ academic achievement according to their most preferred learning style at Nelson English Language Centre (NELC).

The Perceptual Learning Style Preference Questionnaire (PLSPQ)

Reid (1984) developed the perceptual learning style preference questionnaire. Reid developed the perceptual learning style preference questionnaire to find out the perceptual learning preferences of ESL students in the United States. There are six categories of perceptual learning style preferences such as visual, auditory, kinesthetic, tactile, individual and group. There are five questions for each category and the total is 30. The researcher attached the cover letter with this questionnaire and the purpose of it was to describe the objectives of the study, to promise that information from the respondents were hold confidential and the results were used only in the study. In demographic part of this questionnaire, the researcher asked the students’ names, gender and classes.

There are three parts in the questionnaire and the detailed of the PLSPQ is below:

1. A cover letter which explains the purpose of the research.
2. The students’ names, gender and classes are included in demographic part of this questionnaire.
3. Perceptual learning style preferences for English language learning from the Perceptual Learning Style Preferences Questionnaire (PLSPQ) (Reid, 1984).
The table 5 below shows the question item numbers for each learning style preferences.

Table 5

*Details of the Perceptual Learning Style Preference Questionnaire*

<table>
<thead>
<tr>
<th>Learning Styles</th>
<th>Question Items</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual</td>
<td>6,10,12,24,29</td>
<td>5</td>
</tr>
<tr>
<td>Audio</td>
<td>1,7,9,17,20</td>
<td>5</td>
</tr>
<tr>
<td>Kinesthetic</td>
<td>2,8,15,19,26</td>
<td>5</td>
</tr>
<tr>
<td>Tactile</td>
<td>11,14,16,22,25</td>
<td>5</td>
</tr>
<tr>
<td>Group</td>
<td>3,4,5,21,23</td>
<td>5</td>
</tr>
<tr>
<td>Individual</td>
<td>13,18,27,28,30</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
<td></td>
</tr>
</tbody>
</table>

There are 5 point Likert scales in this questionnaire and students have to decide whether they agree or disagree. Then they have to mark one of these boxes: strongly disagree, disagree, undecided, agree and strongly agree.

Table 6

*Level of Agreement, Scores, and Scales*

<table>
<thead>
<tr>
<th>Level of Agreement</th>
<th>Scores</th>
<th>Scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>1</td>
<td>1.00-1.49</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>1.50-2.49</td>
</tr>
<tr>
<td>Undecided</td>
<td>3</td>
<td>2.50-3.49</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
<td>3.50-4.49</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>5</td>
<td>4.50-5.00</td>
</tr>
</tbody>
</table>
The students marked the questions according to their preferences and the researcher calculated the means of Likert scales for each learning style. The following table shows the criteria of deciding the preferred learning style.

Table 7

The Criteria of Deciding the Preferred Learning Style

<table>
<thead>
<tr>
<th>Learning Style Preference</th>
<th>Scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Learning Style Preference</td>
<td>3.80-5.00</td>
</tr>
<tr>
<td>Minor Learning Style Preference</td>
<td>2.50-3.70</td>
</tr>
<tr>
<td>Negligible</td>
<td>0-2.40</td>
</tr>
</tbody>
</table>

In this study, the major learning style preference was considered only and the highest mean score show the most preferred learning style. The following table shows the examples of deciding students’ learning styles based on their mean score. In this study, the major learning style preference scales were used as the criteria of deciding the most preferred learning style.

Table 8

Examples of Deciding the Most Preferred Learning Style

<table>
<thead>
<tr>
<th>Student</th>
<th>Mean score of Visual</th>
<th>Mean score of Auditory</th>
<th>Mean score of Kinesthetic</th>
<th>Mean score of Tactile</th>
<th>Mean score of Group</th>
<th>Mean score of Individual</th>
<th>Most Preferred Learning Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.60</td>
<td>4.40</td>
<td>4.20</td>
<td>5.00</td>
<td>3.80</td>
<td>4.00</td>
<td>Tactile</td>
</tr>
<tr>
<td>2</td>
<td>3.00</td>
<td>3.60</td>
<td>3.80</td>
<td>2.20</td>
<td>4.20</td>
<td>2.00</td>
<td>Group</td>
</tr>
<tr>
<td>3</td>
<td>4.40</td>
<td>5.00</td>
<td>4.00</td>
<td>4.60</td>
<td>3.20</td>
<td>1.40</td>
<td>Auditory</td>
</tr>
</tbody>
</table>
The researcher categorized the students learning style preferences into seven learning style types according to their highest scores. The learning style type 1 was visual, the learning style type 2 was auditory, the learning style type 3 was Kinesthetic, the learning style type 4 was tactile, the learning style type 5 was group, the learning style type 6 was individual and the learning style type 7 was students who have 2 or more same highest mean scores of learning style preferences. Table 9 describes the interpretation of seven learning style types.

Table 9

*Interpretation of Seven Learning Style Types*

<table>
<thead>
<tr>
<th>Learning Style Types</th>
<th>Visual</th>
<th>Auditory</th>
<th>Kinesthetic</th>
<th>Tactile</th>
<th>Individual</th>
<th>Group</th>
<th>2 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Scores</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Validity and Reliability of PLSPQ Questionnaire

The PLSPQ has been developed by Reid and has been extensively used among the researchers to determine the perceptual learning style preferences of the learners. Reid (1987) validated the perceptual learning style preferences questionnaire (PLSPQ) by using a split half method in her last research. Furthermore, Hyland (1994) and Ghada (2011) conducted the validation studies of the perceptual learning style preferences (PLSPQ) with the Lebanese students who enrolled in an American affiliated Lebanese university. The PLSPQ has been used widely for the learning style research (Renou, 2008). Table 10 shows the results of the Cronbach’s alpha as reported by the previous studies and this study.
Table 10

**Reliability Statistics on Different Studies of PLSPQ**

<table>
<thead>
<tr>
<th>Value Component</th>
<th>Number of items for each component</th>
<th>Item number</th>
<th>Moo’s Cronbach’s alpha of the PLSPQ (2016)</th>
<th>Alpha value of this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual</td>
<td>5</td>
<td>6,10,12,24,29</td>
<td>.76</td>
<td>.77</td>
</tr>
<tr>
<td>Auditory</td>
<td>5</td>
<td>1,7,9,17,20</td>
<td>.72</td>
<td>.74</td>
</tr>
<tr>
<td>Kinesthetic</td>
<td>5</td>
<td>2,8,15,19,26</td>
<td>.75</td>
<td>.75</td>
</tr>
<tr>
<td>Tactile</td>
<td>5</td>
<td>11,14,16,22,25</td>
<td>.72</td>
<td>.72</td>
</tr>
<tr>
<td>Group</td>
<td>5</td>
<td>3,4,5,21,23</td>
<td>.87</td>
<td>.76</td>
</tr>
<tr>
<td>Individual</td>
<td>5</td>
<td>13,18,27,28,30</td>
<td>.66</td>
<td>.83</td>
</tr>
</tbody>
</table>

**Translation Process**

With the purpose of convenience in answering the PLSPQ questionnaire for Myanmar students, the questionnaire was translated from English to Burmese by the previous researcher (La, San, 2014) The consistency of this questionnaire in Burmese version was approved by three experts who were all master degree holders in Education, have teaching experiences more than five years and have native level skills in both English and Burmese languages. Therefore, the research adopted his questionnaire in this study.

**Students’ Academic Achievement**

The researcher used NELC students’ EFL test scores as students’ academic achievement for this study. The researcher used the mean scores to determine the level of students’ achievement in learning English as a foreign language and the researcher determined if there is a significant difference among students’ academic achievement according to their most preferred learning style at Nelson English Language Centre (NELC).
The researcher collected the EFL test scores of 2018 from the head office of NELC and descriptive statistics (means and standard deviations) was used to determine the level of students’ achievement in learning English as a foreign language. In NELC, it is used the test scores based on 0-100 points to evaluate the students’ achievement. This standard scale determines whether the students pass or fail the exam. Table 11 illustrates the interpretation of academic achievement of students at NELC.

Table 11

*Interpretation of Academic Achievement of Students at NELC*

<table>
<thead>
<tr>
<th>Score</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>81-100</td>
<td>Very High</td>
</tr>
<tr>
<td>61-80</td>
<td>High</td>
</tr>
<tr>
<td>41-60</td>
<td>Moderate</td>
</tr>
<tr>
<td>21-40</td>
<td>Low</td>
</tr>
<tr>
<td>0-20</td>
<td>Very Low</td>
</tr>
</tbody>
</table>

*Collection of Data*

The researcher received the permission to conduct the research from the director of NELC on 12 April, 2018 and the researcher distributed the PLSPQ questionnaire to 155 students from seven foundation level English classes from 26 to 28 May, 2018. The students’ perceptual learning style preferences in learning English as a foreign language was collected with the PLSPQ and the EFL test scores were collected in May, 2018. The respondents’ valid return rate was 100%. The following table shows the data collection process for this study.
Table 12

Data Collection Process

<table>
<thead>
<tr>
<th>What</th>
<th>When</th>
<th>How</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asking Permission</td>
<td>12 April, 2018</td>
<td>Verbal and documented</td>
<td>NELC</td>
</tr>
<tr>
<td>Thesis proposal defense</td>
<td>23 May, 2018</td>
<td>Present to committee</td>
<td>Assumption</td>
</tr>
<tr>
<td>Distribute and collect</td>
<td>26-28 May, 2018</td>
<td>Distribute hard copies</td>
<td>NELC</td>
</tr>
<tr>
<td>Questionnaire</td>
<td></td>
<td>of questionnaire</td>
<td></td>
</tr>
</tbody>
</table>

Data Analysis

The researcher used the statistical software program for data analysis. For objective 1, the highest mean scores were used to determine the preferred learning styles of students at NELC. Frequency and percentages were used to find out the learners’ preferred learning styles in learning English as a foreign language.

For objective 2, the researcher used descriptive statistics. Means and standard deviations were used to determine the level of students’ achievement in learning English as a foreign language at NELC.

For objective 3, one-way analysis of variance (ANOVA) was used to compare the students’ academic achievement of learning English as a foreign language according to their most preferred learning style by using the mean scores of each student’s preferred learning styles and their academic achievement of each student for all 155 students. The researcher will use Scheffe post-hoc multiple comparison test to compare each pair of the means if there is a significant difference.
**Summary of the Research Process**

Table 13

**Summary of the Research Process**

<table>
<thead>
<tr>
<th>Research objective</th>
<th>Source of Data or Sample</th>
<th>Data Collection Method or Research Instrument</th>
<th>Method of Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To determine the perceptual learning style preferences of students in learning English as a foreign language at Nelson English Language Center (NELC).</td>
<td>Students at NELC (N=155)</td>
<td>PLSPQ Questionnaire</td>
<td>Frequency and percentage</td>
</tr>
<tr>
<td>2. To determine the level of students’ achievement in learning English as a foreign language at Nelson English Language Center (NELC).</td>
<td>Students at NELC (N=155)</td>
<td>EFL test scores</td>
<td>Descriptive Statistics (Means and Standard deviations)</td>
</tr>
<tr>
<td>3. To determine if there is a significant difference among students’ academic achievement according to their most preferred learning style at Nelson English Language Center (NELC).</td>
<td>Students at NELC (N=155)</td>
<td>PLSPQ questionnaire</td>
<td>One way analysis of variance (ANOVA) (Scheffe post-hoc multiple comparison test if needed)</td>
</tr>
</tbody>
</table>
Summary

In this chapter, the researcher described the research design, population and sample, research instrument, collection of data, data analysis, and summary of the research process. In next chapter, the researcher will present the research findings about the perceptual learning style preferences of students who are learning English as a foreign language at Nelson English Language Centre (NELC).
CHAPTER IV

RESEARCH FINDINGS

In this chapter, the researcher presents the statistical analysis of data received from 155 respondents. This survey was conducted from May 26 to May 28, 2018. The researcher distributed a total of 155 questionnaires to the targeted population at Nelson English Language Centre (NELC) in Myanmar and the respondents’ valid return rate was 100%.

The findings of this study are presented in three sections: research finding of research objective one, research finding of research objective two and research finding of research objective three.

Research Finding of Research Objective One

The researcher collected data from PLSPQ for objective one. Research objective 1 was to determine the perceptual learning style preferences of students in learning English as a foreign language at Nelson English Language Centre (NELC). The PLSPQ was designed to determine the perceptual learning style preferences of students and there are six categories such as visual, auditory, kinesthetic, tactile, group and tactile learning styles. There are six items for each learning style and thirty items in total. There is a 5 point Likert scale that is used to find out individual’s perceptual learning style preferences toward each item in the PLSPQ such as strongly agree, agree, undecided, disagree and strongly disagree. For objective one, the researcher computed the mean scores for each learning style based on the replied data, and identified the highest means scores to describe the students’ most preferred learning style in learning English as a foreign language.
Table 14

Frequency and Percentage of the Students’ Preferred Learning Styles at NELC

<table>
<thead>
<tr>
<th>Learning Styles</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual</td>
<td>13</td>
<td>8.4</td>
</tr>
<tr>
<td>Auditory</td>
<td>15</td>
<td>9.7</td>
</tr>
<tr>
<td>Kinesthetic</td>
<td>32</td>
<td>20.6</td>
</tr>
<tr>
<td>Tactile</td>
<td>12</td>
<td>7.7</td>
</tr>
<tr>
<td>Group</td>
<td>34</td>
<td>21.9</td>
</tr>
<tr>
<td>Individual</td>
<td>1</td>
<td>0.7</td>
</tr>
<tr>
<td>Mixed</td>
<td>48</td>
<td>31.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>155</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 14 shows the frequency and percentage of students’ preferred learning styles at NELC. According to the result, the most preferred learning style is mixed (31.0%), followed by group (21.9%), kinesthetic (20.6%), auditory (9.7%), visual (8.4%), tactile (7.7%) and individual (0.7%).

Research Finding of Research Objective Two

Table 15 shows the means and standard deviations for research objective two. Research objective 2 was to determine the level of students’ achievement in learning English as a foreign language at Nelson English Language Centre (NELC).

The researcher used EFL test scores as academic achievement from the students who are learning English as a foreign language at NELC during the academic year 2018. The data analysis result is presented in table 15.
Table 15

*Means and Standard Deviations of Academic Achievement of Students in NELC*

<table>
<thead>
<tr>
<th>Achievement Level</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>155</td>
<td>88.10</td>
<td>6.226</td>
<td>Very High</td>
</tr>
</tbody>
</table>

The mean score of 88.10 in academic achievement describes that the students at NELC demonstrated a very high level of achievement based on the table 15 criteria of academic achievement.

**Research Finding of Research Objective Three**

The data was collected from the PLSPQ to answer the research objective three. Research objective 3 was to determine if there is a significant difference among students’ academic achievement according to their most preferred learning style at Nelson English Language Centre (NELC).

Table 16 shows the comparison of students’ achievement according to their most preferred learning styles for research objective three. One-way ANOVA was used to compare the students’ academic achievement according to their most preferred learning style at NELC. Table 16

*Comparison of Students ’ Academic Achievement According to Their Most Preferred Learning Style*

<table>
<thead>
<tr>
<th>Learning Styles</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>125.234</td>
<td>6</td>
<td>20.872</td>
<td>.529</td>
<td>.786</td>
</tr>
<tr>
<td>Within Groups</td>
<td>5844.314</td>
<td>148</td>
<td>39.489</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5969.548</td>
<td>154</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 16 indicates that the probability of .786 is bigger than .05 at .05 level of significance. Therefore, there are no significance differences among students academic achievement according to their most preferred learning style at Nelson English Language Centre (NELC).

**Summary**

In this chapter, the researcher presented the findings of the research objective one, two and three. In the next chapter, the researcher will discuss the links between the findings presented above and the previous research.
CHAPTER V

CONCLUSION, DISCUSSION, AND RECOMMENDATIONS

In this chapter, the researcher presents a summary of this study including research objectives, research hypothesis, research methodology and the findings of this study. It will also provide a conclusion for the study and discuss the implications of those findings. Furthermore, the researcher offers recommendations based on the study for Nelson English Language Centre for the teachers, administrators and future researchers.

Summary of the Study

This study focused on the perceptual learning style preferences of students who are learning English as a foreign language at Nelson English Language Centre (NELC) in Myanmar. The researcher examined if there was a significant difference among students’ academic achievement according to their most preferred learning style. As a source of data, the researcher used seven foundation level students who are learning English as a foreign language at NELC during the academic year 2018.

This was a quantitative comparative study using both descriptive and inferential statistics. Perceptual Learning Style Preference Questionnaire (PLSPQ) by Reid was used as a research instrument to determine the learning styles of students at NELC. The researcher used EFL test scores to examine the level of students’ achievement who are learning English as a foreign language and got them from NELC head office in Myanmar. A total of 155 questionnaires were distributed and a valid return rate of 100% was achieved. There were 155 students responded the PLSPQ and this study was based on the following research objectives:
1. To determine the perceptual learning style preferences of students in learning English as a foreign language at Nelson English Language Centre (NELC).

2. To determine the level of students’ achievement in learning English as a foreign language at Nelson English Language Centre (NELC).

3. To determine if there is a significant difference among students’ academic achievement according to their most preferred learning style at Nelson English Language Centre (NELC).

There was a hypothesis for this study as follow:

1. There is a significant difference among students’ academic achievement according to their most preferred learning style at Nelson English Language Centre (NELC) at a significant level of .05.

This study was a quantitative and comparative study based on PLSPQ to examine the perceptual learning style preferences of foundation level students who are learning English as a foreign language at NELC in Myanmar. The survey also indicated the level of students’ academic achievement from their EFL test total score percentage. In this study, the researcher used the concept of perceptual learning style preferences developed by Reid (1984) as a base theory. The data was collected from 155 students from seven foundation level English classes who are learning English as a foreign language at NELC during academic year 2018. The data was analyzed by using descriptive statistics.

Summary of Findings

There were three findings based on the research objectives.

Research finding one

The data from the PLSPQ indicated that the whole respondents from seven foundation level English classes preferred learning styles are: 31.0% preferred mixed learning style,
21.9% preferred group learning style, 20.6% preferred kinesthetic learning style, 9.7% preferred auditory learning style, 8.4% preferred visual learning style, 7.7% preferred tactile learning style and 0.7% preferred individual learning style.

**Research finding two**

The students from seven foundation level English classes had a very high level of achievement in learning English as a foreign language.

**Research finding three**

There was no significant difference among students’ academic achievement according to their most preferred learning style at the level of .05.

**Conclusion**

The following conclusions are drawn from the findings of the study. The students from seven foundation level English classes at NELC preferred mixed learning style mostly, followed by group learning style, kinesthetic learning style, auditory learning style, visual learning style, tactile learning style and individual learning style. They have a very high level of achievement in learning English as a foreign language at NELC during academic year 2018. There was no significant difference among students’ academic achievement according to their most preferred learning style.

**Discussion**

In this section, the researcher discusses the perceptual learning style preference, academic achievement in learning English as a foreign language and comparison of the academic achievement with the most preferred learning style.

**Perceptual Learning Style Preference**

The results of this study describe that students from NELC prefer mixed learning styles as the most preferred learning style followed by group learning style, kinesthetic learning style, auditory learning style, visual learning style, tactile learning style and
individual learning style as the least preferred one.

According to Reid (1987), she had conducted perceptual learning style preferences of 1388 EFL students in the United States. In her study, kinesthetic and tactile were major learning styles. The major learning styles of this study are kinesthetic, tactile and group so it is similar to Reid’s study in 1987. In this study, the students in NELC prefer partially to both tactile and kinesthetic learning style so mixed learning style becomes the most preferred one. The researcher assumes that the students in NELC encountered different teaching methods from various teachers and this is another reason that mixed learning style is the most preferred one in this study.

There are two reasons why the students in NELC prefer group learning style as their second most preferred one. Firstly, the students have to do many group project presentations and classroom discussions with their classmates in NELC. The researcher assumes that this familiarity of group learning style supports the students in learning English as a foreign language and it becomes their second most preferred learning style in this study. Secondly, most teachers in NELC use project based learning which require the students to be in group to do some classroom activities. The finding of this study differs from Reid’s finding in 1987 which resulted that there was negligible group learning style preference.

There are many possibilities why individual learning style is the least preferred one in this study. Firstly, the classroom activities often require the students to be in pair work or group work and the students have very limited chance to work alone. Secondly, it is a nature of Asian students to be interdependent with each other in the learning. In NELC, students are diverse in terms of regions, culture, educational background and religions. This variety imposes the students to learn more from each other instead of learning individually. Therefore, it is no surprising to see the result that the students in NELC preferred individual learning style the least.
In Reid’s research about ESL students in the United States demonstrated that individual’s learning style preference is different due to many factors such as culture, the majors and the age. Vietnamese students preferred visual learning styles while Spanish ones preferred kinesthetic learning styles and tactile learning styles (Reid, 1987). In this study, students prefer kinesthetic learning style (20.6%) more than visual learning style (8.4%). The researcher assumes that a different learning environment is one of the factors that influence individual preferred learning style.

According to Juris, Ramos, and Castaneda (2009), the most preferred learning style was kinesthetic followed by tactile and auditory learning styles. That study was conducted with 254 students and 9 teachers in private and public schools of four cities in Colombia. The respondents of this study reveal that they prefer kinesthetic learning style followed by auditory, visual and tactile learning style. There were mixed learning style, group learning style and individual learning style in this study but there were no individual and group learning style in Juris, Ramos, and Castaneda’s study. The researcher assumes that this difference might be resulted from different learning environment and different sample size from this study (254 and 155) and various instruction methods.

**Academic Achievement in Learning English as a Foreign Language**

Finely (2000) developed a study on learning styles and academic learning achievement of high school students. According to the study, 81% of kinesthetic students are more active in the classroom participation compared to other students. As a result, the kinesthetic learners have higher learning achievement than the passive students. In this study, the researcher used EFL test scores to measure academic achievement of students who are learning English as a foreign language at NELC. The result shows that students in NELC have a very high level of academic achievement in learning English as a foreign language and prefer mixed learning style.
There are many factors that support a very high level of academic achievement of students in NELC during the academic year 2018. Firstly, the students experienced various teaching styles in NELC. Most of them are coming from rural area of Myanmar so they are familiar with only teacher-centered approach in the classroom. Teachers in NELC vary the teaching methods according to the needs of the students and the researcher assumes that this is one of the factors the students gain a very high level of academic achievement. Secondly, students from rural area are more hardworking and disciplined in learning English than the students in urban area. Most students in NELC are from rural area and their parents send them to urban area to learn English after they have completed their high school exam. Moreover, students in Myanmar are aware that they have more opportunities in education and work when they can speak English.

**Comparison of Academic Achievement and the Most Preferred Learning Styles**

The analysis of this study shows that there is no significant difference among students’ academic achievement according to their most preferred learning styles. It means that the students in NELC do have their own learning styles respectively but their academic achievement is not affected by any of these learning styles. Rouke and Lysnchuk (2000) used two different materials: printed materials and web-based materials to teach. The students are divided into two groups where one group is taught with printed material and the other is with web-based material. According to their finding, the students with different learning styles have different learning achievement levels which differ from this researcher’s study. Different results of these two studies might be caused by the different learning atmosphere and the teaching methods applied by the teachers.

Moo (2016) created a study of elementary to upper intermediate students determining that their preferred learning style was kinesthetic. In this study, the most preferred learning style is mixed learning style. The different result of these two studies
might be different exam type and different instruction applied by the teachers. The study also showed that there was no significant difference of elementary to upper-intermediate students’ academic achievement according to their most preferred learning style. This researcher’s study had a similar result of no significant difference in students’ academic achievement according to their most preferred learning style.

**Recommendations**

In this study, the students in NELC preferred mixed learning style the most followed by group learning style, kinesthetic learning style, auditory learning style, visual learning style, tactile learning style and individual learning style. The following recommendations are offered based on the results of this study.

**Recommendations for Teachers**

It is one of the responsibilities of the teachers to be aware of the factors that contribute the students’ learning achievement such as motivation, classroom management, and learning style preference. Students in NELC do have different preferred learning styles which mean that the ways they want to absorb learning vary from each other. It is strongly recommended for the teachers to prepare the lesson plans carefully so that students with all different learning style preferences will engage in the classroom activities. Based on the results of this study and three years of teaching experiences at NELC, the researcher offers two main recommendations for the teachers in NELC.

Firstly, the teachers should apply Communicative Approach (CA) in the classroom to encourage all learning types to participate in the activities. Most students in NELC are from rural areas and they are familiar with only teacher centered approach so the teachers have to be a great effort in student engagement. It is required to apply group presentation, debate and many interactive classroom activities in CA. The teachers should
differentiate the classroom instructions to meet the variety of learning style types. For kinesthetic learners, the teachers can use role play, interactive classroom games and presentations. For tactile learners, the teachers can encourage them to create cards and posters for teachers’ day and Christmas. Above all, it is critical to differentiate the instructions so that the students have a chance to experience all learning styles.

Secondly, the teachers have to create a learning environment where the students learn multiple learning styles effectively in the classroom. Although it is important to know individual’s preferred learning style, the teachers are encouraged to be aware of all learning styles instead of one specific learning style. The teachers can adapt, extend and vary the learning styles depending on the students’ educational background, years of learning English as a foreign language and their intrinsic motivation to learn English. Therefore, the teacher should be aware of applying multiple learning styles in the class could promote greater students ‘academic achievement.

**Recommendations for Administrators**

One of the factors that contribute to students’ academic achievement is the management of the school and administrators. The following recommendations are offered in order to manage the school effectively. Firstly, the administrators should invest on the teachers’ capacity. To do that, they should conduct teacher’s professional development programs so that the teachers can expand their knowledge in teaching pedagogies and students’ learning style preference. This study shows that the students in NELC prefer mixed learning style over other types learning styles. The administrators can help the teachers to find out better ways for applying multiple learning styles in the classroom.

Secondly, this finding can help the school administrators to take a necessary action in establishing the suitable syllabus, module and instructional materials to match with the individual learning style preferences and to maintain a very high achievement of the
students who are learning English as a foreign language in NELC. Furthermore, this finding will make the administrators more realize that there is a need to do an action to look into the students’ performance problem in the classroom.

**Recommendations for Future Researchers**

The following recommendations are offered for those who are interested to study the students ‘perceptual learning style preference in learning English as a foreign language’, and the comparative study of learning style preference and students’ academic achievement in language learning.

The scope of this study was only for Myanmar students who are learning English as a foreign language in NELC. Therefore, the future researchers can broaden the sample size of students who are learning other foreign languages in language schools or universities to get more reliable and informative results. The future researchers can also conduct a study the learning style preference of many ethnic students as there are more than 130 ethnic groups in Myanmar. It would be interesting to compare the academic achievement of ethnic students in learning English as a foreign language according to their preferred learning styles.

Furthermore, the future researchers could also take the consideration on other variables such as the age, gender, and years of learning EFL as they might influence the students’ choice of learning styles. Finally, the future researchers can modify the PLSPQ by adding more items which determine the students learning behaviors in the classroom in order to receive more reliable, informative and better results.
REFERENCES


Bristow et al, (2014). Memory and learning: A practical guide for teachers. Retrieved from https://books.google.co.th/books?hl=en&lr=&id=bWTYAQAAMBAJ&oi=fnd&pg=PP1&dq=(Bristow+et+al.+2014)+It+was+widely+acknowledged+that+matching+student+learning+style+to+instructor+teaching+style+can+hugely+improve+the+overall+quality+of+the+student+experience+and+learning+success&ots=orl-gTU8fm&sig=NzRkBoppqZ_UVn35NnNG44y6FRe&redir_esc=y#v=onepage&q&f=false


Brutt-Griffler, J. (2002). World English: A Study of its Development. Retrieved from https://books.google.co.th/books?hl=en&lr=&id=tLWQ4T8FmIkC&oi=fnd&pg=PR6&dq=Brutt-Griffler+(2002),+there+are+four+criteria+in+defining+development+of+English+as+an+international+language+in+Myanmar&ots=SCKMxqa7gK&sig=U3XroRu5MOh-zEB6uhHqL3czDf&redir_esc=y#v=onepage&q&f=false


applied educational research journal, 13, (1), 3-22.

Dunn, R., & Dunn, K. (1978). Teaching students through their individual learning styles.
Reston, VA: Reston.

(part I). New York: Learning Styles Network, St John’s University.

Dunn, R., & Dunn, K. (1992b). Teaching elementary student through their individual

In Dunn, R., & Griggs, S. (Eds.), Learning styles and the nursing profession (pp.

do and how to do it. Lanham, Maryland: Rowman & Littlefield.

strategies on students’ achievement and attitudes: Perceptions of educators in
diverse institutions. Retrieved from http://doi.org/10.3200/TCHS.82.3.135-140

model research: Analysis from a neuropsychological perspective. Jamaica, NY: St.
John’s University’s Center for the Study of Learning and Teaching Styles 11439.

http://www2.hlss.mmu.ac.uk/wp-
content/uploads/2010/08/MATEFLPreProgrammeTasksAppendix1.pdf


*Instructional leader*, 13(1), 6-10.


Maidenhead: Peter Honey.

15 March, 2008).


Teacher Learning Style Preferences. *International Journal of English Linguistics*,
1(1).

Paper presented at RELC Seminar on Learners and Language Learning, Singapore.

Juris, M. F., Ramos, V.V& Casteneda, M.G.G. (2009). Learning and Teaching Crossroads,
http://www.auburn.edu/academic/education/ilsrj/archieves.html

Language Learners. *Educational Confab*, 2(1). Retrieved from


Retrieved from Education Burma website: http://www.thiningclassroom.org

International website: http://www.pri.org/stories/2012-03-08/rush-learn-english-
myanmar

Makhlouf, A. M. S., Witte, M. M., & Dahawy, B. M. A Comparison of Preferred Learning
Styles between Vocational and Academic Secondary School Students in Egypt.
http://www.auburn.edu/academic/education/ilsrj/archieves.htm


McCombs, B. L., & Miller, L. (2007). Learner-Centered Classroom Practices and
Assessments: Maximizing Student Motivation, Learning, and Achievement.

McCombs, B.L., & Whisler, L.S. (2007). Learner-Centered classroom practices and
assessments: maximizing student motivation, learning, and achievement. Thousand
Oaks. CA: Corwin Press.

McCombs, B. L., & (2007). Learner-centered classroom and school: Strategies for
increasing student motivation and assessment. Retrieved from
http://www.indiana.edu/~syschang/decatur/2007_fall/documents2-
2_mccombs_ch1.pdf

style preferences. RECL Journal, 21 (1), 29-54. Retrieved from
http://dx.doi.org/10.1177/003368829002100103

Perceptual Learning Style Preferences in Learning English as a Foreign Language
and their Academic Achievement in the Cetana Academic Program for English at
Myanmar Institute of Theology.

*Theories and practices in language studies, 2*(7), 1508-1513. Retrieved from


Orhun, O., & Orhun, N. (2005-2006). The Relationship between Learning Styles and
Achievement in Physic course and Calculus course. Retrieved from
http://academic.research.microsoft.com/Paper/10854816.aspx


Public Interest, 9 (3). Retrieved from
http://www.physics.emory.edu/faculty/weeks/journal/pashler-pspi08.pdf

Styles in EFL. *International Journal of Applied Linguistic, II (1).* 20


classroom.* (pp.viii-xvii). Boston: Heinle & Heinle Publisher


APPENDICES
APPENDIX A

PERCEPTUAL LEARNING STYLE PREFERENCE QUESTIONNAIRE
(ENGLISH VERSION)
Dear students:

The objective of this study is to investigate the learning styles of students who are learning English as a foreign language at Nelson English language Centre (NELC), Myanmar. This study will increase understanding about students' learning styles, help teachers to promote effective teaching and learning process, and contribute to future research in learning English as a foreign language in Myanmar. There are two parts included in this questionnaire: part one contains demographic information and part two contains perceptual learning style preference questions.

In part one, please write your name, gender, and class. Although it is necessary to analyze data, individual information will not be published in any form. The answers will be strictly confidential and the result will be used only for documentation in this study. The success of this study depends on your honest responses. Please help the success this study by answering all questions within 15 minutes.

Thank you for your time and giving me the chance to survey your learning style.

Sincerely,

Rose Nge Nge
Part 1: Demographic Information

Name: 
Gender: 
Class: 

Part 2: Perceptual learning-style preferences for learning English as a foreign language

People have their preferred learning styles in learning English as a foreign language. Some prefer to learn best by seeing things such as flashcards but some may prefer to learn by listening to the lecture. Some people learn more by physically participating in the class activities and others learn more when they get chance to do hands-on experiences. Some people learn best by working on his own while others may learn well by working with his classmates. This questionnaire was developed to identify your preferred way of learning English as a foreign language.

Directions:

Read each statement on the following pages. Please make your decision whether you agree or disagree on each statement. For example, if you strongly agree, please mark: X as below.

<table>
<thead>
<tr>
<th>1 Strongly Disagree</th>
<th>2 Disagree</th>
<th>3 Undecided</th>
<th>4 Agree</th>
<th>5 Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Item</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1. When the teacher tells me the instructions I understand better.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I prefer to learn by doing something in class.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I get more work done when I work with others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I learn more when I study with a group.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. In class, I learn best when I work with others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I learn better by reading what the teacher writes on the chalkboard.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. When someone tells me how to do something in class, I learn it better.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. When I do things in class, I learn better.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I remember things I have heard in class better than things I have read</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. When I read instructions, I remember them better.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I learn more when I can make a model of something.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I understand better when I read instructions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. When I study alone, I remember things better.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I learn more when I make something for a class project.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. I enjoy learning in class by doing experiments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. I learn better when I make drawings as I study.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. I learn better in class when the teacher gives a lecture.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. When I work alone, I learn better.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. I understand things better in class when I participate in role-playing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. I learn better in class when I listen to someone.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. I enjoy working on an assignment with two or three classmates.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. When I build something, I remember what I have learned better.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. I prefer to study with others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. I learn better by reading than by listening to someone.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. I enjoy making something for a class project.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. I learn best in class when I can participate in related activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. In class, I work better when I work alone.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. I prefer working on projects by myself</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. I learn more by reading textbooks than by listening to lectures.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. I prefer to work by myself.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B

PERCEPTUAL LEARNING STYLE PREFERENCE QUESTIONNAIRE

(Myanmar Version)
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Rose Nge Nge

E-Mail address  rngenge@gmail.com

Contacts address  138 Abac Condo, Ramkhamhang 24 Yak 34, Huamak, Bangkapi 10240.

Phone number  0647956967

Education and other training

2016 Dec-Present  M.Ed. (Curriculum and Instruction) Assumption University, Bangkok

2010 Jan-Oct  Certificate in teaching English as a foreign language (TEFL) (LTTC, UK)

2009 Oct- Dec  Certificate in teaching knowledge test (TKT, British council, Yangon)

2008  Certificate in Social Entrepreneurship (Myanmar Egress Capacity Development Centre, Yangon)

2006 Feb- Nov  Advanced diploma in Business Management (ABE, UK)

2004  Bachelor of Computer Science (University of Computer Science, Mandalay, Myanmar)
**Professional Experiences**

2016 May-2016 Nov  
Communicative English teacher (Kant Kaw Education Center, Myanmar)

2014-2016 April  
Communicative English teacher and Burmese Language teacher of ASEAN program (Mary Immaculate Convent School Chonburi, Thailand)

2013-2012  
Computer and English teacher (Convent of the Holy Infant Jesus School, Bangkok, Thailand)

2012- 2010  
Communicative English teacher for adults and young learners (NELC, Yangon)

2010-2009  
Assistant teacher (Horizon International Education Centre, Yangon)

2009  
Assistant teacher for TEFL class (STI Education, Yangon)

2007-2006  
Communicative English teacher (Jesuit_ De La Salle English Institute)

2005-2006  
Assistant Secretary (Loikaw Youth Diocese, Kayah State)

**Membership**

- English Language Teaching Scheme (ELTeCs)
• Baldwin Library Burma
• British Council Burma
• Fellowship of Association of Business Executives (ABE,UK)
• Alumni of Myanmar Egress Capacity development Centre
• STI Education, Myanmar

**Language Proficiency**

• English (4 skills )

• Burmese

**Computer Literate**

Very good knowledge of Microsoft office (Word, Excel, Power Point, Publisher) and Adobe Page Maker and Photoshop

**Personal Attributes**

• Over nine years teaching experience in international school and private English institutes in Myanmar as well as Thailand

• Successful with the challenge of teaching group of adults

• Infinite patient, confident and committed in working with the learners

• Self-motivated, creative professional; able to work independently and also coordinate with others

• Communicate with learners and their parents with warmth and diplomacy

• Experience with different parents from varied cultures

• Passion for teaching and committed to education enriched by international recognized certificates and attending seminars