

**A CORRELATIONAL-COMPARATIVE STUDY OF  
STUDENTS' 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**

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**Abstract:** This study was conducted mainly to investigate the perceptual learning styles of the students in the Cetana Academic Program for English (CAPE) at the Myanmar Institute of Theology which is in Insein Township, Yangon, Myanmar. This study was carried out to determine the preferred learning styles of the students and compare and correlate those learning styles with the students' learning achievement. The research was conducted from December 8 to 9, 2016 at CAPE. In this study, Reid's Perceptual Learning Styles Questionnaire was used as the primary source of data collection. The data collected from the 118 questionnaires were analyzed by percentage and frequency, mean and standard deviations, One-way ANOVA and Pearson product-moment correlation coefficient. This study found out that the students preferred kinesthetic learning style most followed by mixed, group, auditory, visual and tactile and individual learning styles. There was no relationship between learning styles and learning achievement. The results of this study demonstrated that the Elementary to Upper-intermediate students did favor kinesthetic projects as their most preferred learning style. There was no significant difference between the Elementary to Upper-intermediate students' learning achievement, according to their most preferred learning style. It is recommended that CAPE uses current data to plan future professional development and school-wide changes in teacher instruction to help create a learning environment that best supports students' learning styles.

**Keywords:** Learning Styles, Achievement, Students' Perceptual learning Style Preferences, Myanmar.

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## **Introduction**

Students have different levels of motivation, different attitudes about teaching and learning, and different responses to specific classroom environments and instructional practices. The more thoroughly teachers understand the differences, the better chance they have of meeting the diverse learning needs of all of their students. Recently, various studies for individual differences which determine success or failure in foreign language learning have been carried out, and learning styles have been studied extensively as one of those individual factors for differentiation (Katsuda, 2012). The aim of differentiated instruction is to respond students' differences by providing different ways of teaching to support each student in order to understand the essential content. Differentiated instruction is based on the belief that students learn at high level when the instruction and their variation meet together (Tomlinson, 2010).

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 predispositions 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 (McCombs & Whisler, 2007).

Myanmar Institute of Theology (MIT) in Yangon serves as a Christian Theological Institute and issues bachelor, masters' and Ph.Ds. degrees. Even though it provides tertiary education, it is registered as a religious institution. The Cetana Academic Program for English (CAPE) is one of the English programs which is running under Myanmar Institute of Theology. All the teachers from CAPE are the lecturers from MIT. There are four classes; Elementary, Pre-intermediate, Intermediate and Upper-intermediate in CAPE. Students come from a variety of states from Myanmar and speak various ethnic languages.

## **Objectives**

This study sought to address four research objectives as follows.

1. To determine the perceptual learning style preferences of Elementary to Upper-intermediate students in learning English as a foreign language in the Cetana Academic Program for English (CAPE) at Myanmar Institute of Theology.
2. To determine the level of Elementary to Upper-intermediate students in learning English as a foreign language achievement in the Cetana Academic Program for English (CAPE) at Myanmar Institute of Theology.
3. To determine if there is a significant relationship between Elementary to Upper-intermediate students' perceptual learning styles and their academic achievement in the Cetana Academic Program for English (CAPE) at Myanmar Institute of Theology.
4. To determine if there is a significant difference between Elementary to Upper-intermediate students in learning achievement, according to their most preferred learning styles in the Cetana Academic Program for English (CAPE) in Myanmar Institute of Theology.

## Literature Review

There is one main theory supporting the research: perceptual learning style preferences.

### *Reid's Perceptual Learning Style Preferences*

Reid's perceptual learning style preferences model was based on the Dunn and Dunn learning style model. According to the Dunn's researched with school children in the United States, there are four basic perceptual learning styles such as, visual, auditory, kinesthetic, and tactile learning styles (Dunn, 1983 and Dunn & Dunn, 1979, both cited in Reid, 1987). Reid (1984) added two more learning style categories; group and individual learning styles; and developed the Perceptual Learning Style Preference Questionnaire; and used as an instrument in her research to assess the learning styles of EFL learners. Therefore, in Reid's questionnaire, there are six categories of learning styles: visual, auditory, kinesthetic, tactile, group and individual (Reid, 1998b). According to Reid (1998a), visual learners can learn more effectively by seeing through eyes, auditory learners by hearing, kinesthetic learns by bodily experience, tactile learners by hands-on experiences, group learners by working with peers and individual learners by working alone. This questionnaire is not only one of the most relevant to foreign language acquisition study (Katsuda, 2012) but also regarded as highly reliable, valid and is widely used (Renou, 2004).

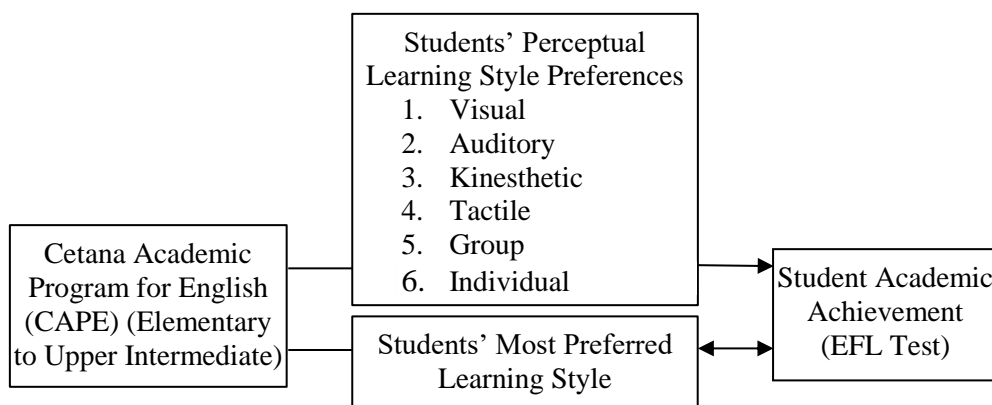
- Visual major learning style preference. Refers to the learner who can learn well through a visual channel. This kind of learner more easily understands the information by reading the words or seeing the graphics in books, on whiteboards or power points. Some visual preference learners need to take notes of oral lectures to retain classroom information.
- Auditory major learning style preference. Refers to learners who learn more effectively through hearing. They remember information well through oral explanation, lectures, class discussions and audio materials. A teacher who can repeat information several times will help auditory preference students to learn more effectively.
- Kinesthetic major learning style preference. Learners with kinesthetic major learning style preference like to learn through physical involvement in experiences. They learn better when they participate in activities, field trips and role-playing.
- Tactile major learning style preference. If the learner has tactile major learning style preference, they learn well from hands-on experiences, such as laboratory experiments, building models, touching and working with materials. In some research, tactile and kinesthetic preferences learners are often grouped together but differ as tactile preference learners need to touch during the learning process. They can stay at the same place and happily make three-dimensional models for a long time, that's the obvious difference with kinesthetic preference learners.
- Group major learning style preference. Those who have a group major learning style preference like to learn with others. They like to share and communicate with other classmates and come up with new knowledge. They

value group interaction and believe that the outside approval of self-worth will help to improve their self-esteem.

- Individual major learning style preference. Those who have an individual major learning style preference learn well by working alone. They can understand new information and achieve more effective learning outcomes when they study by themselves.

Reid (1987) mentioned that the reason for investigating learning styles in language learning is to recognize students' learning styles for implementing more effective teaching strategies and to achieve higher learning outcomes. She also pointed out that when it comes to learning style, it is not a simple variable. Other factors such as educational experiences of instructors and learning environment are also the reasons which can affect the learning style.

### Conceptual Framework



**Figure 1: The Conceptual Framework Used for The Study**

### Method/Procedures

#### *Participants*

The population of this study was all 108 students from Elementary to Upper-Intermediate students learning English as a Foreign Language in the Cetana Academic Program for English (CAPE) at Myanmar Institute of Theology, Yangon, Myanmar. The total sample size for this study, therefore, was 108 students.

#### *Instrumentation*

This was a quantitative, correlational-comparative research study which was utilized both descriptive and inferential statistics. Reid's Perceptual Learning Style Preferences (1984) was used. The Perceptual IPLSPQ was originally developed by Reid (1984) to assess the perceptual learning style preferences of ESL students in the United States. It has been used by many researchers in many studies to assess the learning styles of language learners and its validity and reliability have been

demonstrated. Therefore, the researcher chose this questionnaire to assess the learning styles of CAPE students learning English as a foreign language. The researcher attached a cover letter with the questionnaire. The intention of the letter was to explain the objective of the study and to promise that all the information of respondents would be held strictly confidential and that the results would only use in this study. In part one, the researcher attached a cover letter which intend to explain the purpose of the research. In part two, the researcher tried to identify demographics of EFL students in the Cetana Academic Program for English (CAPE) at Myanmar Institute of Theology which aims to collect personal information of the respondents' data; name, gender and class in order to find out the students' EFL scores. In part three, one set of Burmese language questionnaire which was translated from the Perceptual Learning Style Preferences Questionnaire (PLSPQ) (Reid, 1984) was used to test the students' Perceptual learning style preferences for English language learning.

**Table 1: Reliability Statistics on Different Studies of PLSPQ (N=118)**

Value Component	Number of items for each component	Item numbers	Khatib and Ghosheh Cronbach's alpha of the PLSPQ (2013)	Alpha value of this study
Visual	5	6,10,12,24,29	.72	.76
Auditory	5	1,7,9,17,20	.71	.72
Kinesthetic	5	2,8,15,19,26	.75	.75
Tactile	5	11,14,16,22,25	.72	.72
Individual	5	3,4,5,21,23	.75	.66
Group	5	13,18,27,28,30	.80	.87

#### *Data Analysis*

The researcher used a statistical software program to do the data analysis. For objectives 1, The highest mean scores were used to determine the preferred learning styles of CAPE students. Then frequency and percentage were used to determine the students' preferred learning styles in learning English as a foreign language of the CAPE students.

For objective 2, descriptive statistics involving means and standard deviation were used to determine the level of students' achievement in learning English as a foreign language.

For objective 3, the researcher used the mean scores of the students' most preferred learning styles and their academic achievement and Pearson product moment correlation coefficient was used to find the relationship between the students' preferred learning styles and their academic achievement.

For the objective 4, one-way analysis of variance (ANOVA) was used to compare the CAPE students' academic achievement of learning English as a foreign language according to their most preferred learning styles by using the mean scores of each student's most preferred learning style and academic achievement of each student for all the 118 students. If there is significant difference, the researcher used Scheffe post hoc test to compare each pair of the means.

## Findings

The researcher distributed a total of 118 questionnaires to the targeted population at the Cetana Academic Program for English (CAPE) at Myanmar Institute of Theology and 118 of questionnaires were received back.

The main findings of this study were as follows:

**Table 2: Relationship between Elementary to Upper-intermediate Students' Learning Styles and Learning Achievement**

Achievement Level	Pearson Correlation	Learning style
	Sig. (2-tailed)	.081
	n	.382
		118

Table 2 shows the Pearson Product – Moment Correlation Coefficient for research objective three: To determine the relationship between Elementary to Upper-intermediate students' learning styles and their achievement in learning English as a foreign language. The significance result of .382 is bigger than .05, which indicates that there was no relationship between Elementary to Upper-intermediate students learning styles and their achievement at .382 significance level.

**Table 3: Comparing the Elementary to Upper-intermediate Students' Learning Achievement, according to Their Most Preferred Learning Style**

Learning Styles	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	105.67	29	3.64	1.01	.465
Within Groups	317.10	88	3.60		
Total	422.78	117			

Table 3 indicates that the probability of .465 is bigger than .05 at .05 level of significance, which means there were no significant differences of the Elementary to Upper-intermediate students' learning achievement according to their most preferred learning styles. Therefore, research hypothesis one indicated that here is a significant difference of Elementary to Upper-intermediate student's achievements, according to the students' most preferred learning styles was rejected and there were no significant differences among Elementary to Upper-intermediate students' learning achievement to their most preferred learning styles.

## Discussion

The results of this study demonstrated that the Elementary to Upper-intermediate students of the Cetana Academic Program for English (CAPE) do favor kinesthetic learning style most followed by tactile, mixed, group, auditory, visual and individual learning style as the least favor.

As mentioned in Chapter II, Reid had conducted the PLSPQ in the United States in 1987 and there were 1388 EFL students involved into the study. This study result was similar to Reid's study in 1987 which result had kinesthetic and tactile as major learning styles. The researcher assumes that the students experienced only

teacher-centered instruction throughout their student lives. Then they experience new instructional strategies at CAPE and kinesthetic learning style appeals them most since it is easy, fun and practical for them compared to other styles. Moreover, the students come from various ethnic backgrounds which are usually less-developed regions of the country. So, their background knowledge of English is poor which is why they like kinesthetic learning style.

In terms of group learning style preference, the findings of this study differ from Reid's research in 1987. Reid's research found out the EFL students had negligible group learning style preference, and this study showed the students preferred group learning style as well.

In Asian culture, a sense of belonging to the community and being close to the relatives is much stronger compare to the Western culture. For example, in Myanmar, people know the names of their neighbors or the family that live across the street. Asian cultures prefer closer relationships in public more than western culture. So, it is not surprising to see that the findings of this study showed that the students of CAPE do not really prefer individual learning style preference. As most of the students come and study from the different parts of the country, they have different educational background, the learning environment and technology. Most students need to use computer to complete their assignments and projects daily, these kinds of challenges discourage students to learn alone. Handling every assignment and learning tasks individually in the new environment, school, syllabus, teaching styles requires more than their individual capability. Therefore, by working in groups, they can divide the tasks, depend on each other and learn from each other.

According to Reid's research of English as a second language (Reid, 1987), individuals have different learning styles. Learning style preferences can be affected by many factors, such as culture, major and age. Reid (1987) claimed that Vietnamese learners prefer visual learning while Spanish learners prefer kinesthetic and tactile learning styles. It is not surprise to see that the learning style preferences are different.

Juris, Ramos, and Casteneda (2009) explored the learning styles of students in the public and private schools of four cities in Colombia. 254 students and 9 teachers participated in the study and the most preferred style was kinesthetic followed by tactile learning style and then auditory. The respondents of this current study also preferred kinesthetic learning style most and followed by tactile and mixed learning style. There were group, auditory, visual and individual learning style as the learning style while there were no individual and group learning style in Juris, Ramos, and Casteneda's study. This difference might be due to the differences in culture, size of the samples from this study (254 and 118) and instructional methods.

The study used the students' final exam scores in percentage for measuring the students' achievement. The analysis of the data showed that Elementary to Upper-intermediate students' learning achievement is high, according to the CAPE's grading scale. This may be because most of the students attending in CAPE are trying to pass the entrance exam of Liberal Arts Program which is a Bachelor Degree program in Myanmar Institute of Theology. Therefore, to pass the entrance exam motivate them to try hard to get high level of achievement in EFL.

Most for the students are hardworking and disciplined in education by culture and all the students aim to join the Liberal Arts Program in Myanmar Institute of

Theology which require a high score. This mean a huge intrinsic motivation for them to excel in the test. Therefore, these are the good reasons to have a high level of achievement at CAPE. In contrary to that, another possible reason for this case can be the discriminating power of the test. It might be that the test does not have a good discriminating power or the assessments did not provide a large opportunity for the student to express their understanding uniquely and extensively.

As stated in Chapter II, Finely (2000) developed a study on learning styles and academic learning achievement of high school students. The study showed that 81% of the kinesthetic students were more active in their participation in the class. The kinesthetic students had higher learning achievement than the passive students.

This study's data determines that there is no relationship between Elementary to Upper-intermediate perceptual learning styles to their achievement. The Elementary to Upper-intermediate students in this study mostly use kinesthetic learning style. Despite their use of kinesthetic learning style, it does not increase their achievement. No matter what learning preferences a student may have, he can still achieve high. This does not mean that some students do not benefit from their learning style preferences, but as a whole, the students' learning styles do not show a significant relationship to their achievement. Moreover, students' achievement can be altered by the learning environment and learning styles implemented properly during classroom instruction. Often students that are strong in their academics can excel using several different types of learning styles.

According to the research findings, there was no significant difference between the Elementary to Upper-intermediate students' learning achievement according to their most preferred learning styles. In 2005 and 2006, Orhun and Orhun investigated the relationship between learning styles and achievements of Turkish students in Physics I and Calculus I in the Physics Department of Anadolu University. 142 university students participated in their study. They applied Kolb's learning style inventory to collect the data. The result showed that there is a statistically significant difference in the physics course achievement according to the students' different learning styles. On the other hand, there was no significant difference in the Calculus course achievement according to the students' different learning styles (Orhun and Orhun, 2005-2006). According to the different result, it can be assumed that students' achievement could be difference according to their preferred learning styles depending on specific major fields.

La San (2013) created a study of Burmese students determining that their preferred learning style was tactile. The study also showed that there was no significant difference in the Burmese students' achievement, according to their preferred learning style. This researcher's study had similar results of no significant difference in achievement, according to the Elementary to Upper-intermediate students' preferred learning of kinesthetic learning. The difference result in the preferred learning style of Burmese students tactile and the Elementary to Upper-intermediate students of CAPE might be due to the different languages taught.

### **Recommendations**

According to the findings of this study, Elementary to Upper-intermediate students from CAPE had three major learning style preferences in learning English as a foreign



language. They were kinesthetic, tactile and group. The students had three minor learning style preferences were found in this study. Therefore, the researcher would like to provide some recommendations as below.

#### *Recommendations for Teachers:*

It is crucial to know that basically every individual student has a different learning style preference from another. Since students do not prefer one particular style to another, each student should be encouraged to learn in all possible ways. Therefore, the researcher strongly recommends for teachers to be aware of the different learning styles of the students and create lessons allowing the students to learn with different learning styles.

The researcher strongly recommends to teachers to apply active, and cooperative learning strategies such as, class presentations, showing movies, discussions, field trips, games, and other activities. Teachers should create flexible or differentiate instructions and a wide range of instruction in order to meet the student differences in learning styles. For the auditory learning style, teachers should use discussion to approach various topics using English language. The activities such as, role-playing and games will help the kinesthetic learners to learn the English as a Foreign Language affectively. Providing writing tasks such as easy writing, and making posters related to the lessons will engage the students who have the tactile learning style. Moreover, providing activities, assignments, and discussions with the students paired, grouped and alone will benefit both the group and individual learners learning English as a foreign language. Especially for the visual learning style, the researcher recommends to teachers to use a variety of visual and multi-media materials, such as pictures, photos, videos, Power Points, diagrams and charts because students' learning styles could be extended, adapted, and changed depending on their educational experiences change. By doing the above recommendations, students will be able to utilize different learning styles to learn more effectively. They can also get chance to develop multi-learning style preferences, which can be beneficial to their learning.

#### *Recommendations for Administrators*

According to the finding of this study, the students do prefer kinesthetic learning style over the other types of learning styles. School administrators should help both teachers and students to find better ways of presenting information in the classroom. Professional development sessions can be used to help teachers to benefit from learning style concepts and use them in their daily classroom instruction. Parents and students can be given a voice to help guide the administration towards classroom instruction that favors learning styles that are natural and more enjoyable for students to use.

#### *Recommendations for Future Researchers*

For future researchers who are interested in perceptual learning style preferences in English as a foreign language learning, below are some recommendations.

Future researchers could adapt new educational technologies into the PLSPQ instrument. The PLSPQ instrument was developed over 20 years ago, with the rapid

change of educational technologies; to modify the PLSPQ will help researchers to better understanding the current learning styles, which will lead to more accurate results. Finally, this researcher recommends using a qualitative and mixed study with interviews, surveys, classroom observations with pretests and posttest to broaden the scope of a future study.

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