

A Study of the Preferred Language Learning Styles among First Year Students in University of Co-operative and Management, Sagaing, Myanmar

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Abstract

In the process of teaching and learning, it's essential for teachers to understand students' preferred learning styles in order to develop successful teaching approaches. To foster improved communication between teachers and students, it's crucial to blend impactful teaching methods and activities that align with students' preferred learning styles. The study aims to identify the learning styles of the students at the beginning level of tertiary education. The objectives of the research are to find out the most significant learning style among first year students at the University of Co-operative and Management in Sagaing, to classify the learning preferences based on gender variations and to analyze their preferred learning style to develop appropriate instructional activities for the students. Reid's (1987) perceptual learning style preference questionnaire which Peacock (2021) reported to have high reliability and the theory of learning style were utilized to collect the information required to determine the preferred learning style of each student. For the study, a total of 220 first year students at the University of Co-operative and Management in Sagaing were selected as participants. The data were analyzed with descriptive statistics, using SPSS Statistical Software Version 20. The study findings revealed that a majority of students predominantly favored kinesthetic and group learning styles as their primary modes of learning. Based on gender differences, a majority of male students were kinesthetics and most of the female students were observed to be in the category of Tactile students. The research findings suggest the implementation of blended teaching strategies by educators to better accommodate the diverse learning needs of students. It is hoped that the current study will help English language instructors develop effective teaching activities to a certain extent.

Key Words: Perceptual Learning Style, visual, kinesthetic, auditory, tactile, group and individual learning style.

1. Introduction

In the tertiary education sector, colleges and universities have been engaged in making contributions to strengthen the abilities of the students in order to improve their academic performance. There are different definitions of learning. Learning is commonly defined as a process that brings together cognitive, emotional and environmental influences and experiences for acquiring, enhancing, or making changes in one's knowledge, skills, values and world views (Illeris, 2004; Ormorod, 1995).

Learning is the stage of process of strategy abilities and strengths of learning styles of the research. The aim of the study is to investigate the learning styles of the students at the beginning level of the tertiary education. Different learning will be universities have been engaged in making contributions to strengthen the abilities of the learners.

The trends of education have changed from a teacher-centered to the student-centered learning in recent years. Therefore, it is important to explore different learning styles and the teaching methods which should be upgraded to be aligned with the learners. In the tertiary education sector, colleges and universities have been engaged in making contributions to strengthen the abilities of the students in order to improve their academic performance.

The concept of learning styles has many implications for educator and students. According to Bostom (2011), students who can understand their learning modalities and develop individual study strategies perform better in their studies. Learning style is a term that refers to the learner's method(s) of collecting, processing, interpreting, combining and

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thinking about something. The characteristics of college/ university learners can vary according to the age, culture, level of mentality preparedness, intelligence and psychological conditions which lead to differences in individual learning styles in sensory modalities (Miller, 2001).

An individual's learning style technically tends to lead the preferential way in which the learner absorbs processes, comprehends and retains information. Individual learning styles depend on cognitive, emotional and environmental factors, as well as on one's prior experience. Therefore, everyone has different learning styles. According to Sarun (2004), the learning style is defined as "the method in which learners perceive process, interpret, organize and think about information." It is vital for educators to know the differences in their students' learning styles so that they can reveal the best strategies into their studies.

Moreover, it is more important for tertiary level students to improve their self-learning potential to apply for learning process. In management for learning, the educators have to develop teaching style that helps to upgrade the maximum potential of the learners. They need to support the self-improvement of the learners in order to achieve the specific objectives. There are many factors which affect the learning association such as knowledge and ability of teaching and teaching strategies. The successful learning process also relies on the learner. Students with knowledge of their own preferred learning styles are powerful to apply various techniques to improve learning.

According to S.Rattanathongkom (2006), teaching in the university level requires good preparation that is suitable to the ability of individual difference. If the teacher realizes the abilities, existing knowledge, readiness, interests of each learner, it will be effective to proper teaching and potential progress organization for the learner. This strategy can stimulate and enhance the learner's learning process.

However, it is anticipated that accomplished students possess the ability to adapt to diverse learning styles for effective information processing or to select the most suitable language learning style. This phenomenon has garnered significant attention from researchers, leading to in-depth investigations. Numerous researchers have developed and customized instruments and learning style models to assess preferences in learning styles within the context of second and foreign language acquisition. This study specifically aimed to identify the learning styles employed by both male and female students in an English class, considering the possibility of significant differences in their responses and interactions with lecturers and classmates across various subjects. Among the various instruments utilized, Reid's Perceptual Learning Style Preference Questionnaire (1987) was employed to unveil students' specific style preferences in foreign language learning, encompassing visual, auditory, kinaesthetic, tactile, group, and individual domains.

1.1 Statement of the Problem

Many educators may struggle to ascertain the preferred learning styles of their students when it comes to acquiring new information in the classroom, potentially hindering the students' learning advantages. Given the diversity among learners, it becomes crucial for educators to be aware of their students' individual preferences. Understanding these preferences enables educators to apply and instruct the most effective teaching strategies

tailored to each student. In Myanmar, it is often observed that students hesitate to disclose their preferred learning styles in the classroom. Therefore, educators should proactively assess and comprehend these preferences to enhance the students' academic success. A thorough understanding of students' learning styles not only aids in the development of targeted learning strategies but also contributes to overall student performance. Consequently, the current research delves into investigating the preferred learning styles of University of Co-operative and Management, Sagaing in Myanmar.

1.2 Aim and Objectives of the Study

The study aims to investigate the learning styles of the students at the beginning level of tertiary education.

The objectives of this research are as follows:

1. to find out the most significant language learning style among first year students at the University of Co-operative and Management in Sagaing
2. to identify the language learning preferences based on gender variations

2. Literature Review

In this section, a review of the literature appropriate for the research objectives is presented. This includes a brief overview of the concepts for learning style and reviews of related studies.

2.1 Theoretical Background

Learning style, as defined by De Bello (1990), refers to "the way individuals absorb, process, and retain information." Put differently, learning style encompasses the physical characteristics, thoughts, and feelings that individuals consistently employ to perceive, respond, and engage with their environment, according to Punto and Tiantong (2014). Numerous scholars explore learning styles to foster motivation in diverse ways.

2.1.1 Language Learning Styles

Learning style stands out as a critical determinant of how effectively students acquire a second or foreign language, among numerous other factors. Various perspectives on learning styles are offered by language experts and researchers. Specifically, learning style is articulated as "the variations among learners in using one or more senses to understand, organize, and retain experience" (Reid, 1987). Additionally, the term 'learning style' encompasses individual preferences in obtaining, processing, and retaining information (Gass&Selinker, 2008). This approach extends beyond language acquisition and is also applicable to students engaging with any subject matter (Oxford, 2001). Described as the diverse ways in which learners perceive, absorb, process, and recall new information and skills, learning styles play a significant role (VanPatten&Benati, 2015). In essence, learning styles are linked to the idea that individuals excel in learning through various approaches, potentially influencing their language performance during learning activities.

Several experts have delved into the fundamental principles of learning style. Sternberg (1997), for instance, posits that learning style is not an inherent ability; rather, it

reflects students' choices in utilizing their abilities and is indicative of their thought processes. Even when students exhibit similar abilities, their learning styles may differ. Oxford (2001) defines learning style as the overall approach selected by students when engaging with a specific course, acquiring a language, or addressing a challenging problem. Oxford (2003) further elaborates that learning style involves the formation of frequent patterns that guide learning comprehensively, rendering instructional methods either engaging or tedious based on individual preferences.

Another expert characterizes learning style as "an individual's preferred and habitual modes of perceiving, remembering, organizing, processing, and representing information" (Dörnyei, 2005, cited in Purpura, 2014). Each learning style preference creates a "comfort zone" for students, and efforts to expand this zone through practice are emphasized (Oxford, 2001). Recognizing the diverse concepts of language learning styles is crucial, as it has the potential to enhance the learning experience, making it more enjoyable and successful. Students' choices regarding a particular style can impact their learning success based on how effectively they employ it to their advantage.

2.1.2 Perceptual Learning Style Preference Questionnaire (PLSPQ)

The Perceptual Learning Style Preference Questionnaire, also known as PLSPQ, developed by Reid (1987) as cited in Dörnyei (2005), represents the initial widely recognized learning style assessment tool in the field of second language (L2) studies. Its primary purpose is to evaluate six distinct learning style preferences: visual, auditory, kinesthetic, tactile, group learning, and individual learning. Reid (1987:91) highlighted that prior to the introduction of her PLSP questionnaire, there was no published research elucidating the perceptual learning style preferences of Non-Native English speakers (NNSs).

This questionnaire is characterized by user-friendliness, accompanied by a self-scoring sheet and a brief explanation of learning style preferences, offering practical suggestions for learners. Moreover, Reid's Perceptual Learning Style Preference Questionnaire, as outlined in her study (1987), pioneered the exploration of perceptual learning style preferences among English as a Second Language (ESL) and English as a Foreign Language (EFL) learners at the university level (Vaseghi, Ramezani, &Gholami, 2012).

Comprising 30 items, Reid's questionnaire employs a 5-point Likert scale ranging from "strongly agree (5) points, agree (4) points, undecided (3) points, disagree (2) points, strongly disagree (1) point." The learning styles are categorized into three groups: major learning style preference (38-50), minor learning style preference (25-37), and negligible (0-24).

Each sensory learning style is delineated as follows:

(a) Visual Learning Style

Students exhibiting this learning style "prefer to read and derive substantial understanding from visual aids" (Oxford, 2001). They effectively recall and comprehend information from discussions, lectures, and verbal instructions when supported visually, such as through note-taking and reading. Additionally, according to Reid (1987) in Dörnyei (2005), visual learners are those who favor understanding ideas through written materials, exemplified by reading handouts. The questionnaire items predominantly associated with

visual learners include "I learn better by reading what the teacher writes on the chalkboard" (Item 6), "When I read instructions, I remember them better" (Item 10), "I understand better when I read instructions" (Item 12), "I learn better by reading than by listening to someone" (Item 24), and "I learn more by reading textbooks than by listening to lectures" (Item 29).

(b) Tactile Learning Style

Tactile learners excel when engaged in "hands-on" experiences with materials, such as conducting experiments in a laboratory or handling and constructing models. Questionnaire items relevant to tactile learners include "I learn more when I can make a model of something" (Item 11), "I learn more when I make something for a class project" (Item 14), "I learn better when I make drawings as I study" (Item 16), "When I build something, I remember what I have learned better" (Item 22), and "I enjoy making something for a class project" (Item 25).

(c) Auditory Learning Style

Auditory students favor direct lectures, conversations, and oral instructions, even without accompanying visual input (Oxford, 2001). Those with an auditory learning style prefer to listen when learning, such as through oral explanations or discussions. They find satisfaction in interacting with classmates during role-play activities and participating in class discussions. Auditory learning styles are reflected in questionnaire statements such as "When the teacher tells me the instructions, I understand better" (Item 1), "I learn better in class when the teacher gives a lecture" (Item 7), "I remember things I have heard in class better than things I have read" (Item 9), "I learn better in class when the teacher gives a lecture" (Item 17), and "I learn better in class when I listen to someone" (Item 20).

(d) Kinesthetic Learning Style

Similar to tactile students, kinesthetic learners enjoy "lots of movement and working with tangible objects, collages, and flashcards" (Oxford, 2011). In essence, these students learn best by actively engaging in classroom activities. Kinesthetic learning styles are evident in questionnaire statements such as "I prefer to learn by doing something in class" (Item 2), "When I do things in class, I learn better" (Item 8), "I enjoy learning in class by doing experiments" (Item 15), "I understand things better in class when I participate in role-playing" (Item 19), and "I learn best in class when I can participate in related activities" (Item 26).

(e) Group Learning Style

Students with a group learning style prefer interaction and collaborative work with peers when completing tasks. They find that they receive and comprehend new information more effectively when working in groups. Questionnaire items pertinent to group learning style include "I get more work done when I work with others" (Item 3), "I learn more when I study with a group" (Item 4), "In class, I learn best when I work with others" (Item 5), "I enjoy working on an assignment with two or three classmates" (Item 21), and "I prefer to study with others" (Item 23).

(f) Individual Learning Style

Individualistic students thrive when working alone, making better progress when studying without interference from others. Individual learning styles manifest in questionnaire statements such as "When I study alone, I remember things better" (Item 13),

"When I work alone, I learn better" (Item 18), "In class, I work better when I work alone" (Item 27), "I prefer working on projects by myself" (Item 28), and "I prefer to work by myself" (Item 30).

In the University of Co-operative and Management, Sagaing, this is the first study investigating the preferred learning style among the students. The results of the study will be for the lecturers. Educators can use the generated data to address the different styles and match them to their teaching styles or even curriculum.

2.2 Related Researches

A study titled "Learning Style Preferences among Medical Students in the College of Medicine, University of Bisha, Saudi Arabia" was conducted at the University of Bisha's College of Medicine in Saudi Arabia from October 2018 to March 2019. The research aimed to characterize the learning styles of undergraduate medical students at the institution. The investigation utilized the VARK (Visual, Aural, Read/Write, and Kinesthetic learning style) inventory questionnaire version 7.1 to assess students' preferences. Neil D. Fleming developed the VARK inventory. The study categorized students' learning styles into unimodal and multimodal patterns. The findings revealed diverse patterns and types of learning styles among students at the College of Medicine, University of Bisha (UBCOM), with Aural being the dominant unimodal style and the visual style widely distributed among students at different academic levels.

In a related study titled "The Need to Incorporate Kinesthetic Learning as One of the Primary Methods in Maritime English/Communication Classes," conducted by the Malaysian Maritime Academy, the research aimed to identify the most preferred learning styles in the teaching of Maritime English, specifically in two distinct classes: nautical cadet officers and ship crew members. The study employed the PLSPQ (Perceptual Learning Style Preference Questionnaire) method developed by Reid (1987). Questionnaires were distributed to (30) respondents, cadet officers learning Maritime English.

Data collected were analyzed using SPSS software, employing descriptive statistics and median analysis to identify the most preferred learning style among respondents. The findings indicated that kinesthetic learning was the most preferred style in Maritime English classes, followed by the visual style, with auditory style ranking last. The majority of students expressed a preference for hands-on experiences, emphasizing their desire to be actively involved in lessons rather than passively listening to lectures.

3. Research Methodology

To carry out the research, this section is related to the methodology. In the study, the design of the instruments, and procedures of data collection including the method of data analysis are also provided to complete it. The survey questionnaire is used to examine the preferred learning styles and to describe the preferred learning style differences of male and female students.

3.1 Participants

For the research, the target participants were the first year students of University of Co-operative and Management, Sagaing which is located in the central part of Myanmar. A total of (221) students, 167 (75.5%) females and 54 (24.4%) took part in the study. The participants' age ranges from 16 to 21 years. They were elected samples for the study.

3.2 Instrument

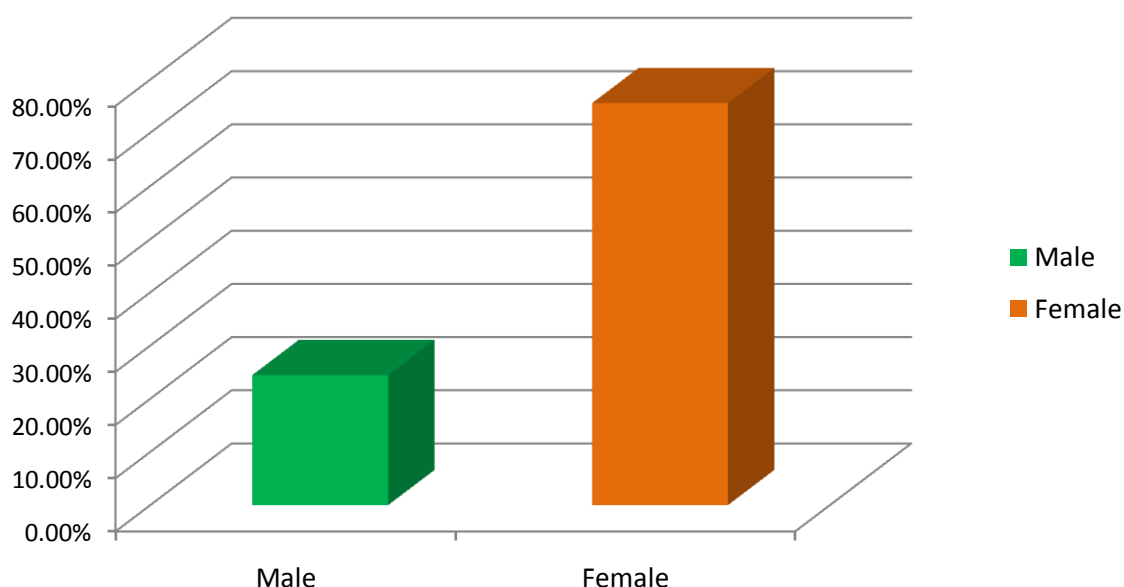
The Perceptual Learning-Style Preference Questionnaire created by Joy M. Reid's (1987) was used to collect the data. It is composed of (30) Likert-type questions. All questions consist of five items: strongly agree, agree, undecided, disagree and strongly disagree. Each of these response options is assigned a score (from 5 to 0, respectively).

3.3 Data Analysis

Before gathering the data, students were sought for their consent to participate in the research, and their agreement was obtained. Initially, quantitative scores were computed for all questionnaire responses (the written survey) to determine the learning styles of the students. Using this tool, learners differentiated their optimal learning methods and preferences. The questionnaire consisted of thirty statements encompassing Reid's six learning style preferences, each rated on a scale from one to five. Students assessed these statements based on their application to their English studies, utilizing a 5-point Likert scale.

3.3.1 Basic information of the students

(A) In the study, there are (221) students with (24.4%) of male and (75.5%) of female as shown in figure (4.1).



Source : Survey Data, 2023

Figure.1 Distribution of Respondents by Gender

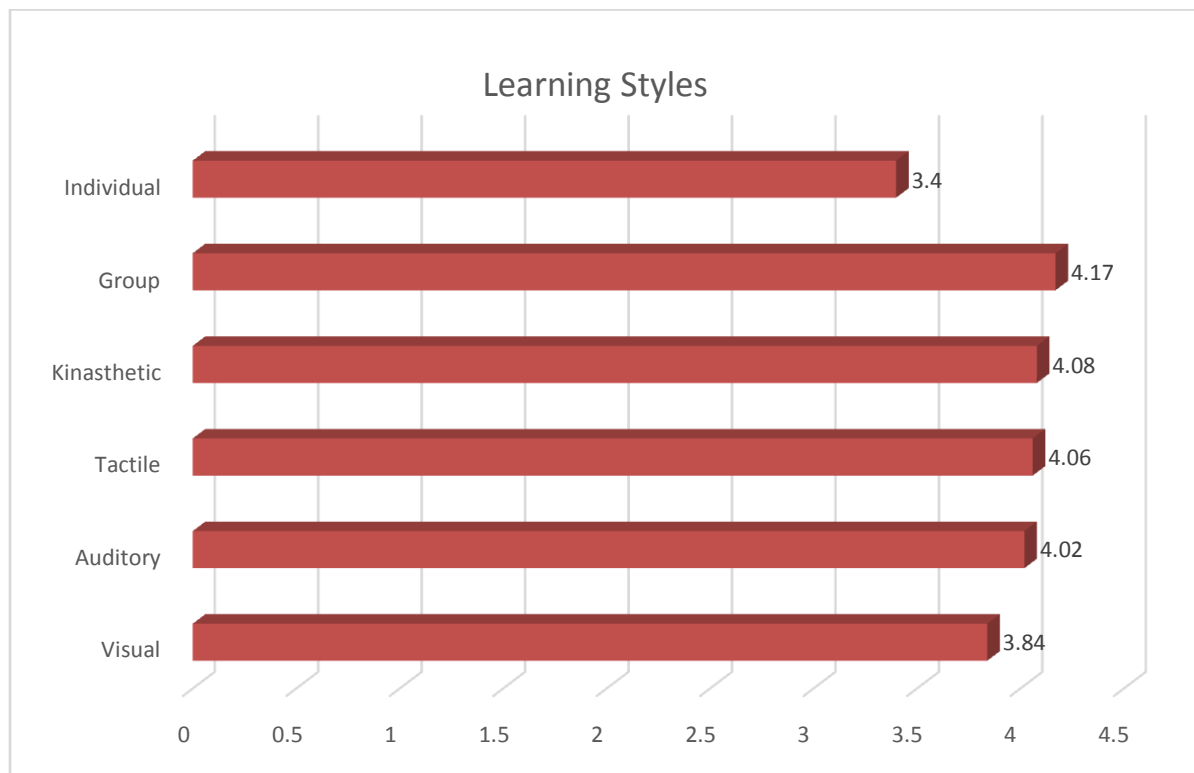
(a) The Overall Students' Preferred Learning Style

Examining the specific learning styles of English as a Foreign Language (EFL) learner is crucial in the broader context of language teaching and learning. Learning styles refer to "the overall patterns that give general direction to learning behavior" (Cornett, 1983, as cited in Oxford, 2001). Several studies have found variations among English as a Second Language (ESL)/EFL learners in terms of their preferred learning approaches. In this study, (221) students participated, employing diverse learning styles in their language learning, as indicated in the table below.

Table.1 Frequency of Students' Perceptual Learning Style Preferences

	VISUAL	AUDITORY	TACTILE	KINESTHETIC	GROUP	INDIVIDUAL
N Valid	221	221	221	221	221	221
Missing	0	0	0	0	0	0
Mean	3.8471	4.0244	4.0670	4.0887	4.1719	3.4009
Std. Deviation	.62199	.49940	.49895	.77443	.49113	.75378
Minimum	2.20	2.20	2.40	2.00	2.40	1.40
Maximum	5.00	5.00	5.00	11.60	5.00	5.00

Source : Survey Data, 2023



Source : Survey Data, 2023

Figure.2 Means of the Learning Styles

The scores across all categories ranged from a minimum of 1.40 to a maximum of 5.00. Among the six perceptual learning style preferences, the predominant choice among students was the group learning style (Mean = 4.17, Standard Deviation = 0.49). Following closely, the second most favored learning style category was the kinesthetic style (Mean = 4.08, Standard Deviation = 0.77). Tactile (Mean = 4.06, Standard Deviation = 0.49), Auditory (Mean = 4.02, Standard Deviation = 0.49), and visual (Mean = 3.84, Standard Deviation = 0.62) learning styles were ranked as the third, fourth, and fifth preferences for learning English, respectively. The least frequently chosen style by students was the individual learning style (Mean = 3.40, Standard Deviation = 0.75).

In the statistical analysis of frequency, students' learning style preferences ranged from (3.40) to (4.17). This category suggests that students can perform effectively in specific areas, implying that a highly successful student can adapt to learning in various ways.

(b) Learning Style Preferences According to Gender

Another discovery involved identifying the learning styles that are predominantly favored by male and female students. The initial step in this analysis was to examine the distribution of variable values through a normal distribution assessment. The Shapiro-Wilk test, suitable for small sample sizes (< 50 samples) with a significance level greater than (0.05), was employed. For larger sample sizes (> 50 samples) with a significance level greater than (0.05), the Kolmogorov-Smirnov test was used. The distribution of the gender variable is outlined in table (2).

Table.3 Frequency of Students' Perceptual Learning Styles Based on Gender

Perceptual Learning Styles	Gender	Number	Mean	Standard Deviation
Visual	Male	54	3.79	0.60
	Female	167	3.86	0.62
Auditory	Male	54	4.04	0.47
	Female	167	4.01	0.50
Tactile	Male	54	4.07	0.60
	Female	167	4.06	0.46
Kinesthetic	Male	54	4.22	1.19
	Female	167	4.04	0.57
Group	Male	54	4.19	0.45
	Female	167	4.16	0.50
Individual	Male	54	3.32	0.75
	Female	167	3.42	0.73

Source : Survey Data, 2023

As indicated by the statistical analysis, both male and female students exhibited distinct preferences in their application of various learning styles. A significant proportion of male students identified as kinesthetic learners (Mean = 4.22, Standard Deviation = 1.19), contrasting with their female counterparts (Mean = 4.04, Standard Deviation = 0.57). Female students displayed a propensity toward being Group learners (Mean = 4.16, Standard Deviation = 0.50), although the mean score was still slightly lower than that of male students (Mean = 4.19, Standard Deviation = 0.45). Notably, individual learning style emerged as the least frequently adopted style by students.

On the other hand, kinesthetic and group learning styles were favored by male students, and tactile and group learning styles were favored by female students. This classification suggests that students are most effective in their learning when employing styles they find comfortable and familiar.

4. Findings and Discussion

In the education sector, assessing students' learning styles is a valuable skill. In the present study, the perceptual learning style preference questionnaire is used as a tool to determine the students' learning style preferences. To increase the quality of teaching and learning process, recognizing preferred learning styles of students is a key approach. Knowing learners' interests well will help teachers move onto the students' learning styles from his/her learning style. In the future, it is hoped that the students may become more effective learners.

According to the results, most of the students preferred group learning style, followed by kinesthetic learning style, tactile learning style, auditory learning style, visual and individual learning style respectively. It shows that the influential learning style among students is the group learning style.

In describing the preferred learning style between males and females, it shows that male students prefer kinesthetic, group and tactile learning style than female students. Moreover, female students prefer group learning style than male students.

The present study and other research show that most students can learn effectively when educators provide a blend of group, kinesthetic, and tactile activities. To achieve this goal, it becomes important to use active learning strategies (Dicarlo, 2009). In large classrooms, co-operative learning strategies, role playing, simulations, debate and games are active strategies that can be used effectively. These strategies promote working in groups and provide high levels of motivation and enthusiasm.

Therefore, teachers and educators should recognize students' different learning style preferences which can assist the teachers in organizing the classroom design, developing a suitable educational program and adopting the appropriate teaching strategies. Matching the teachers' learning styles and strategies with students' varied learning style will surely increase the students' academic performance. Knowing the learning style can be very supportive in individualized instruction. Moreover, students should know their learning styles to plan and make better use of their study time and learning strategies which can improve their academic performance and lead to academic success.

5. Conclusion

The focus of the present study is on investigating preferred learning styles of the University of Co-operative and Management, Sagaing. Based on the assessment of the acquired research data, the students were classified according to their favorite learning styles. The preferred learning styles of students in the current study were group followed by kinesthetic, tactile, auditory, visual, and individual ones. In total, (221) students, the majority of students chose group learning style.

Different students have their most preferred learning styles for studying a language. Therefore, teachers must recognize the learning styles of their students and use the best strategies. It is essential to update their teaching methods and it is needed to find out the strategies and classroom activities which are very effective in the learning process. Therefore, the study focuses on finding out the preferred learning styles of the first-year students in the University.

According to objective one, the preferred learning styles of the students are identified through a set of perceptual learning style preference questionnaires created by Reid(1987). It was found that group learning style is the most preferred style. This shows that the majority of students like to participate actively in classroom activities. Additionally, according to objective two, in describing learning styles for male and female students, it is found that male students tend to kinesthetic learning style more than female students. However, female students chose the group learning style more than male students. Moreover, according to objective three, the students' preferred learning styles were analyzed to organize the appropriate teaching activities for the students. It was found that

most of the students prefer group and kinesthetic learning styles. Auditory, visual, tactile and individual learning styles were chosen by some of the students.

Therefore, it can be concluded acknowledging the favored learning styles of students holds significance for teachers to a certain degree. To foster improved interaction between educators and students, teachers should design a blend of impactful teaching strategies and activities that align with the students' preferred learning styles.

5.1 Suggestions

Learning styles affect not only the way individual students acquire and process information but also the teaching process. It is suggested that teachers adopt teaching approaches aligned with students' learning styles to enhance their performance and facilitate academic success. Moreover, it is needed to do more research evaluating the possible association learning style preferences of the learners. (Learning style of Kolb, Learning style of Peter Honey and Alan Mumford, etc.). Additionally, further studies should be conducted into the learning style preferences of other students at the University of Co-operative and Management in Sagaing.

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