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Students' Learning Style Preferences vis-à-vis their Academic Achievements in EFL classes

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Abstract

This study aimed to identify the students' perceptual learning style preferences and their academic achievements in EFL. The study is a descriptive survey approach in which mixed method design was employed. The pertinent data were obtained from 245 students. All English teachers were also taken as the sample. In collecting data, a 4- point Likert scale questionnaire called Perceptual Learning Style Preference Questionnaire (PLSPQ) was used along with interview and document analysis. The information gathered through close-ended question of the PLSPO and document analyses were analyzed quantitatively with the help of SPSS for windows version 16. On the other hand, the data gathered through interview were analyzed qualitatively. Descriptive statistics such as mean and standard deviation were used to describe the respondents' preferences of perceptual learning styles. Meanwhile, ANOVA was used to see the significance of differences among the population means of the six PLSPs. Moreover, paired-samples T-test of comparisons was the other statistics technique used to identify the mean of specific PLSP, among the six, that was statistically significantly different from the others. It was found out that they were statistically significantly different from the others. Furthermore, chi- square test was employed to observe the relationships between students' PLSPs and their English language academic achievements. The findings of the study revealed that group, kinesthetic, tactile, visual, auditory and individual were students' first, second, third, fourth, fifth and sixth preferred perceptual learning styles respectively. Based on the findings, the means of the six PLSPs were statistically significantly different from each other. What is more, the study revealed that there weren't statistically significant relationships between students' PLSPs and their English language academic achievements.

Key words: learning styles, perceptual, academic achievement, preferences,

1. Background of the study

Nowadays with the shift from teacher-centered to a learner-

oriented approach in language learning/teaching, understanding

the way students learn is of crucial importance. Students take in and comprehend information in different manners. Some like to see, and others like to hear. Some prefer to learn individually or independently of others; while and others enjoy interaction relationship with their peers. It is widely believed that the different ways of how a learner takes in and information processes are collectively referred to as learning styles or learning preferences (Reid, 1987).

According to Kolb, (2004) learning style is defined as individual differences in the way information is perceived, processed and communicated. Learning style differs from individual to individual, between friends, brothers and sisters. Thus, students with different learning styles understand and try to solve problems in different, relatively stable ways. Learning styles

consists of a distinctive behavior. which serves as indication of how a person learns and adapts to his environment. Keefe (1997) states that learning style is composed of cognitive characteristics (the way an individual processes, stores, and retrieves information). affective (emotional and personal attributes like motivation sociality. risk taking and persistence) and physiological (which includes an preferred individual's sensory modes-visual, auditory, kinesthetic etc.) There are factors that serve as relatively stable indicators of how a learner perceives, interacts with and responds to the learning environment.

Statement of the Problem

There are a plethora of research findings that show that realizing the students' perceptual learning style and using a fitting teaching method is very essential for the academic achievement. However, students learning in

and perceptual general their learning style preferences in particular do not appear to be given due attention in most cases. It is argued that many teachers ignore the varying needs and learning styles of their students by claiming that they know what is best for their students. As such, they stick to the traditional ways of teaching, believing that those methodologies that have worked before would also work for today's students. This appears to have become a serious problem and led to the declining of students' level of English.

Some teachers seem to be reluctant to identify and use the ways their students prefer to learn the language, or even if they find out their students' learning styles, they pay little attention. However, the actual reality is that teachers need to discover their students' preferred ways of learning the language. They can teach in a way that is engaging to students and do what works best for them. Felder (1996) stated that mismatches often occur between learning styles in students in a language class and the teaching style of the teacher with unfortunate effects on the quality of the students' learning and on their attitudes towards the class and the subject.

Smith and Renzulli (1984) stated that learning style inventory instruments have to be designed to help teachers modify their instructional procedures in the way students learn better in the Nevertheless. classroom. at national level in general and at the school under consideration in particular, learning style inventory instruments were not designed to teachers modify help their instructional procedures in the way students learn better in the classroom and identifying and using students perceptual learning style was not experienced.

Reid (1987)stated that students shift their major fields during their academic career that correspond with their learning style and prefer different content indicated areas. These that learning students' preferences determine their choice of specific contents, subject matters, and the field of study. However, this scholar did not determine whether students' LSP related to their academic achievement or not. Furthermore, many researchers supported the idea that there are learning style preference differences among the students in language class. In this case, studying only the existence of learning style preferences (LSP) differences among individuals in an EFL class was not enough. However, investigating the dominant, minor and neglected LSP of students' in EFL class and their achievement was very *Ethiop. J. Sci. Sustain. Dev., 5 (1), 2018* important, which the current study aimed to account for.

Objectives of the Study

The general objective of this study was to assess the students' perceptual learning style preferences vis-á-vise their academic achievement in EFL classroom.

Specific objectives

The specific objectives of the study were to:

- Identify the dominant perceptual learning style preferences of students in EFL classroom.
- Determine the minor perceptual learning style preferences of students in EFL classroom.
- Identify the neglected perceptual learning style preferences of students in EFL classroom
- Find out the relationship between students 'perceptual learning style preferences and their academic achievement

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Research Questions

The following leading questions were used to determine the students' dominant or major, minor and most neglected PLSPs and their academic achievement in an EFL classroom.

- What are the dominant perceptual learning style preferences of students in EFL classroom?
- What are the students' minor perceptual learning style preferences of students in EFL classroom?
- Are there neglected perceptual learning styles of students in EFL classroom?
- Is there significant relationship between students' perceptual learning style preferences and their academic achievement?

2. Research Methodology

The study tried to describe the perceptual learning style preferences of students in an EFL classroom. Thus, descriptive Ethiop. J. Sci. Sustain. Dev., 5 (1), 2018

survey design was used in the study to propound the perceptual learning style preferences of students. The data gathered using perceptual learning style preferences questionnaire (PLSPQ) were analyzed using quantitative method design along with document analysis and a qualitative method to analyze the data gathered through interview.

Sampling Technique

Comprehensive non-random sampling technique was used to sample the English language teachers in the school as they were just three in number. Regarding sampling, students' the total of population students was 679(342 male and 337 female). Because it was not manageable to consider all of them as participant of the study, 245 students were taken from both sexes using stratified random sampling. The reason for opting for this sampling technique was to give equal chance for students with in their section, sex and environment.

Data collection tools

The instruments used for the collection of pertinent data are questionnaires, interview and document analysis.

Questionnaire

Perceptual Learning Style Preference Ouestionnaire (PLSPO) which was developed by Reid was used by adapting and revising in the way that how students' learned, studied, acted, reflected, or did in the English Language classes to find out meaningful information for the study. Reid (1987) developed the questionnaire for ESL/EFL students, and the present study was conducted in a country, Ethiopia, in which English has been being learnt and spoken as a foreign language. this learning Therefore. style (questionnaire) inventory was investigate used to students'

perceptual learning style preferences, which was appropriate for collecting vital information for the study.

Perceptual Learning Style Preference Questionnaires (PLSPQ) was prepared by considering six learning style modalities such as auditory. visual. kinesthetic. tactile, individual, and group. These questionnaires had a total of 30 items with five items for each learning style category: auditory (1, 7, 9, 17, 20), visual (6, 10, 12, 24, 29), kinesthetic (2, 8, 15, 19, 26), tactile (11, 14, 16, 22, 25), individual (13, 18, 27, 28, 30) and group (3, 4, 5, 21, 23).

Document Analysis

One of the objectives of the research was to assess the relationship between students' academic achievement and their learning style preferences. To determine the relationship between achievements and learning styles, students' results were taken from

their first semester roster and arranged into five intervals based of Education's on Ministry method of marking students' card. The following intervals were the values assigned for the students' achievement on the card: below 50% = poor, 50-59% = fair, 60-79% =satisfactory, 80-89% =very good. 90-100% =excellent. Thus, the researchers used these intervals to relationship see the between students' learning style preferences and their EFL achievements.

Methods of data analysis

Descriptive statistics was used to see the mean and standard deviation differences among the students' Perceptual learning style Therefore preferences. the collected data on Perceptual learning styles were analyzed by using different statistical techniques with the help of the Statistical Package for the Social Sciences (SPSS) for windows, version 16.0. In this case, two

descriptive statistics (mean and standard deviation) were used to see how much the five students' PLSPs were different from each other and how far they varied from the average respectively. The data obtained through the questionnaire were further analyzed using ANOVA, Chi-Square and paired samples T-test in order to define the significances of the data.

Hence, ANOVA was used to see the existence of the significant differences among the population means of the learning styles because the variables were six, which were more than two: visual, auditory, tactile, kinesthetic, group, and individual. According to Myers and Well (2003, p.231), ANOVA is a common statistical technique used for determining if there exists a difference among means of two or more groups.

On the other hand, paired samples T test was used to see which mean differences will show

significant value in the students' learning style preferences. Paired samples T-test is a procedure or statistical test (technique) generally used in conjunction with ANOVA to find which means are significantly different from each other. The third statistical test, Chi-square, was used to see the relationship between learning style preferences and the students' achievement in EFL.

3. Result and Discussion

Students' responses to the learning style preferences

gathered The data from students through the PLSPQ were computed by descriptive statistics (mean and standard deviation) to determine differences in students' perceptual learning style preferences. The following tables show each item in the Learning Style Questionnaire within each learning style modalities using both mean and standard deviation.

The result from table 1 showed that the students differ in preference with the items of auditory learning style. As it could be seen, the participant students showed the strongest preference toward the item "number (7)" with a mean of 3.49 and standard deviation 0.766 where as they showed the least preference to the item "number 20" with a mean of 2.20 and standard deviation of 1.175. As it was shown, there were differences among students in their learning styles preference even within the modality of auditory. The means of students' learning styles across the items took the following ranks: Item No first, then 9, 1 &17, 20 7 respectively. There were significant differences among the standard deviations of all items as shown in implied the table. This that students didn't similar have attitude to these learning style.

Table 1.The sum of responses, means, standard deviation deviation of each item from the auditory learning style domain.

S.No	Item	No.	sum	mean	S.D
1	I understand or learn the lesson easily when my teacher gives me instructions orally in the classroom	245	658	2.69	.968
7	I learn things more in the classroom when the teacher gives me instructions how to do something.	245	855	3.49	.766
9	I can easily remember what I listened rather than what I read.	245	741	3.02	.919
17	I learn the lesson more when the teacher gives a lecture orally in the class.	245	628	2.56	1.001
20	I learn the lesson more when I listen to someone in the class.	245	538	2.20	1.175

The result from table 2 indicated the extent to which the students agree with items of visual learning style. As it was indicated above, the students showed the strongest preference toward item "number 10" with a mean of 3.45 and standard deviation of 0.759 where thev show least as preference to item "number 24" with a mean of 2.01 and standard deviation of 1.018.

As it can be seen from table, there were differences among students in their learning styles preference even within the modality of visual learning style. significant There not were differences among the standard deviations of items No.24, and No 29; and item No.6 and 12 as shown in the above table. This indirectly implied that students did have similar attitude to these learning style's items. On the other hand, the standard deviation of item No. 10 showed significant difference from the others. This showed that great differences there were among students toward item No. 4.

The result from table 3 showed how much the students are

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differing in preferring items of tactile learning style. As it was indicated above, the participant students showed the strongest preference toward item "number 22" with a mean of 3.33 and standard deviation of 0.770.

As it could be seen, there were differences among students in their learning styles preference *Ethiop. J. Sci. Sustain. Dev., 5 (1), 2018* even with in the similar learning style modality of tactile. There were not significant differences among the standard deviations of items No.11, and No 14 as well as 22 and 25 as shown in the above table. This implied that students did have almost similar attitude to the items of this learning style.

Table 2. The sum of responses, means, and standard deviation of each item from the visual domain

No	Items	No	Sum	Mean	S.D
6	I learn and follow the lesson more when I read what my teacher writes on the blackboard.	245	757	3.09	.892
10	When I read instructions, I remember them better.	245	846	3.45	.759
12	I understand better when I read instructions.	245	812	3.31	.846
24	Most of the time, I learn more when I read language contents in my textbook rather than listening to my teacher's presentation.	245	493	2.01	1.018
29	I know more about the lesson when I read different textbooks and guides rather than listening to my teacher's explanations in the class.	245	649	2.65	1.024

S.No	Items	No.	Sum	Mean	S.D
11	I learn more by making a model of something practically that my teacher presents in the class.	245	755	3.08	.869
14	I learn more when I make something for a class project.	245	755	3.08	.865
16	I learn better when I make drawings as I study.	245	661	2.70	.991
22	I understand what I read, and heard more when I practically do them.	245	817	3.33	.770
25	I enjoy making something for a class project.	245	762	3.11	.784

Table 3.The sum of responses, means, standard deviation of each item from the tactile domain

 Table 4. The sum of responses, means, standard deviation of each item from the kinesthetic domain

S.N	Item	No.	Sum	Mean	S.D
2	I prefer to learn by doing practically class				
	activities that the teacher presents in the	245	871	3.56	.622
	class.				
8	When I do things in class, I learn better.	245	725	2.96	.881
15	I learn more enjoyably when I follow my				
	teacher teaching, explaining or doing	245	866	3.53	.721
	something practically in the class.				
19	I easily understand what I learn in the				
	class when I practically participate in a	245	699	2.85	1.010
	role play.				
26	I learn best in class when I can participate	245	659	2 69	860
	in related activities.	243	039	2.09	.000

Table 5	. The sum of responses,	means,	standard	deviation	of each	i item f	rom
	the individual domain						

S.N	Item	No.	Sum	Mean	S.D
13	When I study alone, I remember things better.	245	694	2.83	1.044
18	When I work alone, I learn better.	245	590	2.41	.994
27	I easily and quickly finish anything when I do it alone.	245	602	2.46	1.053
28	I prefer doing any activity or project alone.	245	586	2.39	1.076
30	I prefer doing alone any activity that our teacher gives us.	245	543	2.22	1.015

As it was indicated the participant students showed the strongest preference toward item "number 2" with a mean of 3.56 and standard deviation of 0.622 whereas, they showed the least preference to item "number 26" with a mean of 2.69 and standard deviation of 0.860. It could be understood that there were differences among students in their learning styles preference even within the modality of kinesthetic learning style. There significant differences were among the standard deviations of all items as shown in the above table. This implied that there were great differences among students towards each item.

The above table makes it evident that the students differ in preference with the items of individual learning style. The participant students showed the strongest preference toward item "number13" with a mean of 2.83 and standard deviation of 1.044 where as they showed least preference to item "number 30" with a mean of 2.22 and standard deviation of 1.015. There were

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differences among students in their learning styles preference even within the modality of individual style. There were not significant differences among the standard deviations of all items as shown in the above table. This implied that students did have almost similar attitude to these learning style's items.

Table 6.The sum of responses, means, std. deviation of each item from the group domain

S.N	Item	No.	Sum	Mean	S.D
3	I often do classroom activities easily when I participate in groups.	245	750	3.06	.887
4	I understand what I learn more when I read or study together with my friends in free time.	245	841	3.43	.752
5	I do assignments, class works and other activities better when I do them with classmates.	245	771	3.15	.846
21	Doing the class works and home works that our teacher gives us in pair or group makes me very happy.	245	823	3.36	.850
23	I often prefer studying with my friends rather than studying alone.	245	789	3.22	.845

The result from the above table indicates that the students choose group learning style. The students showed the strongest preference toward item "number 4" with a mean of 3.43 and standard deviation of 0.752 where as they showed the least preference to item "number 3" with a mean of 3.06 and standard deviation of 0.887.

As it was shown, there were differences among students in their learning styles preference even within the modality of group learning style. There were not significant differences among the standard deviations of items No. 3, No. 5, No.21 and No 23 as shown in the above table. This implied that students did have almost similar attitude to these learning style's items. On the other hand, the standard deviation of item No. 4 showed significant difference

Document Analysis Data Presentation and Discussion

from the others.

This section was used to determine if there were significant relationship between students' perceptual learning style preferences and their academic performances. Thus, to do so, the students' first semester results were arranged into five intervals based on Ministry of Education's method of marking. Therefore, to compute this relationship, chisquare was used as indicated below

The above table indicates the number of students in the given intervals of achievements that preferred each learning style. As it Ethiop. J. Sci. Sustain. Dev., 5 (1), 2018

indicated in the was table. students' achievements were arranged from poor to excellent. The largest number of students (57) among the target population was found in group learning style row whereas the least number of students (35) were observed in the row of individual learning style. To see the relationship between students' preferences and their achievements, comparison was between critical made and observed values of chi-square.

As it can be observed from the table, the 245 sample students were distributed in all of the five intervals of achievement categories. That is, 4 (1.6%), 14 (5.7%), 100 (40.8%), 87(35.5%)and 40 (16.3%) of the respondents were in the categories of excellent (90-100%), very good (80-89%), satisfactory (60-79%), fair (50-59%) (<50%)and poor respectively.

As shown in the table, among the 4 (1.6%) of the students who achieved 'excellent' (90-100%), two were found in the kinesthetic and two in individual rows. Moreover, of the 14 (5.7%) students who lied in the 'very good' (80-89%)category. 6(2.4%). 2(2.5%). 1(2.3%). 2(2.4%) 3(1.9%) of them are found in the group, kinesthetic, tactile, visual and auditory rows respectively. But for the rest categories, among the 57 (23.3%)of group learners, 6(2.4%) and 18(7.3%), 22 (9%) and 11(4.5%) of the students achieved satisfactory (60-79%), fair (50-59%) and poor (<50%) respectively. As it can be observed, group learners who were in the most dominant learning styles didn't achieve excellent. On the other hand, among the 43 (17.6%) of the students who preferred the second major learning style, kinesthetic, Ethiop. J. Sci. Sustain. Dev., 5 (1), 2018

2(0.8%). 2(0.8%). 17(6.9%). 12(4.9%) and 10(4.1%) achieved excellent (90-100%), 'very good' (80-89%) satisfactory (60-79%), fair (50-59%) and poor (<50%). respectively. Regarding the two learning style preferences that are found at the middle, tactile and visual, among the 40 (16.3%) of tactile learners, $1 \quad (0.4\%), \quad 23$ (9.4%) 11 (4.5%) and 5(2.0%)students lied in the intervals of very good (80-89%), satisfactory (60-79%), fair (50-59%) and poor (<50%) respectively. However, none of them scored excellent (90-100%). Among the 37 (15.1%) visual learners, 2 (0.8%), 15 (6.1%), 18 (7.3%) and 2(0.8%)students achieved scores in the intervals of very good (80-89%), satisfactory (60-79%), fair (50-59%) and poor (<50%) respectively. But none of them scored excellent (90-100%).

Table: 7. the relationship between students' learning style preferences and academic achievement in chi-square test.

Types of learning style		Students' First Semester English score				Total	
		<50%	50-59%	60-79%	80-89%	90-100%	
Auditory	Count	6	15	9	3	0	33
	Expected	5.4	11.7	13.5	1.9	.5	33.0
	% of Total	2.4%	6.1%	3.7%	1.2%	.0%	13.5%
Visual	Count	2	18	15	2	0	37
	Expected	6.0	13.1	15.1	2.1	.6	37.0
	% of Total	.8%	7.3%	6.1%	.8%	.0%	15.1%
Tactile	Count	5	11	23	1	0	40
	Expected	6.5	14.2	16.3	2.3	.7	40.0
	% of Total	2.0%	4.5%	9.4%	.4%	.0%	16.3%
Kinesthet	count	10	12	17	2	2	43
ic	Expected	7.0	15.3	17.6	2.5	.7	43.0
	% of Total	4.1%	4.9%	6.9%	.8%	.8%	17.6%
Individua	count	6	9	18	0	2	35
1	Expected	5.7	12.4	14.3	2.0	.6	35.0
	% of Total	2.4%	3.7%	7.3%	.0%	.8%	14.3%
Group	count	11	22	18	6	0	57
count	expected	9.3	20.2	23.3	3.3	.9	57.0
	% of Total	4.5%	9.0%	7.3%	2.4%	.0%	23.3%
	count	40	87	100	14	4	245
Total	Expected	40.0	87.0	100.0	14.0	4.0	245.0
	% of Total	16.3%	35.5%	40.8%	5.7%	1.6%	100.0%

4. Conclusion

The results showed that students had different attitudes towards the six PLSPs. That is, they did not prefer them equally. This shows that there were statistically significant differences in the means of students' PLSPs. For instance, the results of the study computed on students' PLSPs, group, kinesthetic, tactile, visual, auditory, and individual styles were found students' first, second, third, fourth fifth and sixth preferred LSs respectively. In other words, group and kinesthetic were students' most preferred or

most dominant PLSPs whereas. visual and tactile were their average preferred LSPs. On the hand individual other and auditory LSP were their least preferred PLSP. This shows that, while applying group and kinesthetic learning styles in the students' most classroom. participation can be seen but, while applying visual and tactile, moderate participation can be found in the classroom. However, while applying individual and auditory, almost all students' reluctance of participation can be witnessed. Moreover, based on the findings of the study, it can be concluded that language learning style preferences do not have a significant influence on students' learning of the language and on their academic achievements.

Recommendation

Taking the findings of the study into consideration based on the basic research questions, the following recommendations are given:

- Teachers should take differences among the students into consideration when they design lessons.
- Students should also be advised to try to adjust themselves to different learning circumstances.
- English Language teachers should vary their teaching styles to accommodate the students' learning styles.
- A variety of teaching materials should be incorporated in the language classroom so that students are able to adjust to different learning situations so as to avoid any inconveniences when exposed to learning styles that do not suit them.

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