



STUDENTS PREFERENCE ON PERCEPTUAL LEARNING STYLE

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Abstract. This paper explores a spectrum of problems and challenges students face while learning second language. Many educators and researchers have claimed that learning styles are insignificant component in the learning process. However, the study points out the significance of learning the students' learning style preference. The purpose of the study is to determine the learning styles of students at International University of Sarajevo. The focus group was comprised by 34 learners (N=34) at ELS / IUS during Session II, 2011/2012. Data were gathered from many different sources in order to determine the Perceptual Learning Style (PLS) of ELS students using PLSPQ research instrument. This is a qualitative and quantitative research study. Learning styles are also analysed regarding to students' nationality so for the participants come from different cultures. Therefore, the ethnic composition of the sample is significant for the study. In addition, the difference between male and female students regarding their study preferences is analysed. The study suggests the elements instructors should take into the consideration with regard to students' language learning style preference and ethnicity as well as cultural features in order to obtain the learning environment and achieve knowledge.

Key words: Perceptual Learning Style, visual, kinaesthetic, auditory, tactile, group and individual learning style

Introduction

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; Ormrod, 1995). Meanwhile, for others learning is the lifelong process of transforming information and experience into knowledge, skills, behaviours, and attitudes. Many researchers worked on the way individuals learn or understand, later adjust new information and their preferred methods for learning. It has also been the focus of a number of studies in the second language acquisition field in recent years. It has been claimed that learning styles are insignificant component in the learning process. Studies on learning styles have provided different views of student learning and the way to apply it in the classrooms and lives. Educators and researchers have developed several instruments to assess students' learning styles, but literature regarding this topic is full of unresolved issues; both theoretical and practical (Wilson, 1998, P.3). On the other hand, these instruments have been a great help in identifying visual, kinaesthetic, auditory, tactile, group and individual styles as well as many other classifications of styles in students and also exploring them with the aim of improving the learning and teaching processes. Therefore, it is obvious that people learn in many different ways: people who learn primarily with their eyes are called visual learners; or with the ears - auditory learners; whereas some people prefer to learn by experience and/or by "hands-on" tasks - kinaesthetic or tactile learners; some people learn better when they work alone while others prefer to learn in groups.

Therefore, this paper explores a spectrum of problems and challenges students face while learning second language. This is a qualitative and quantitative research study. The purpose of the study is to determine the learning styles of students at International University of Sarajevo. The focus group was comprised by 34 (N-34) learners at ELS / IUS during Session II, 2011/2012. Data were gathered from many different sources in order to determine the Perceptual Learning Style (PLS) of ELS students using PLSPQ research instrument. Learning styles are also analysed regarding to students' nationality so for the participants come from different cultures. Thus, it is believed that instructors should apply

PLSPQ and Need analysis and find out information about their students. Learners' ethnicity and cultural features should also be taken into consideration while teaching. The finding of the research points put the importance of learning the way students read in order to obtain the learning environment and achieve knowledge.

There exist many studies on learning styles in Europe, Asia and North America but in Bosnia and Herzegovina there are not many. It is relevant to study this topic due to the fact that learning styles affect not only the way individuals acquire and process information but also the teaching processes.

Theoretical Framework

As it is mentioned previously, some scientists claim that learning is acquiring new or modifying existing knowledge, behaviours, skills, values, or preferences and may involve synthesizing different types of information. There is various data that shows that the learning style term was used in 1900s. Therefore, firstly, it is necessary to analyse 'Learning theories': behaviourism, cognitivism and constructivism. Behaviourism focuses only on the objectively observable aspects of learning. Cognitive theories look beyond behaviour to explain brain-based learning. And constructivism views learning as a process in which the learner actively constructs or builds new ideas or concepts.

Behaviourism as a theory was primarily developed by B. F. Skinner. He advocates three basic assumptions. First, learning is manifested by a change in behaviour. Second, the environment shapes behaviour. And third, the principles of contiguity (how close in time two events must be for a bond to be formed) and reinforcement (any means of increasing the likelihood that an event will be repeated) are central to explaining the learning process. For behaviourism, learning is the acquisition of new behaviour.

Cognitivism, originated by Jean Piaget (1971), is a theoretical framework for understanding the mind that came into usage in the 1950s. The movement was a response to behaviourism, which cognitivists said neglected to explain cognition. Many researches imply that behaviourists acknowledged the existence of thinking, but identified it as behaviour. Cognitivists argued that the way people think impacts their behaviour and therefore cannot be a behaviour in and of itself. Where as a major spokesman for this socio-cultural theory was Lev Semenovich Vygotsky who had very mature ideas about language, culture, and cognitive development. He claims that development depends more on interaction with the people in the child's world. Vygotsky thinks that child while learning requires the real and symbolic tools such as classroom object and different teaching materials.

Constructivism is a synthesis of multiple theories diffused into one form. It is the assimilation of both behaviorialist and cognitive ideals. The "constructivist stance maintains that learning is a process of constructing meaning; it is how people make sense of their experience" (Merriam and Caffarella, 1999, p. 260). This is a combination effect of using a person's cognitive abilities and insight to understand their environment. This coincides especially well with current adult learning theory. This concept is easily translated into a self-directed learning style, where the individual has the ability to take in all the information and the environment of a problem and learn. The key is to assure the course builds on what has already been learned.

Literature

Research on learning and teaching styles has provided teachers and students with a different view of learning and teaching within the classrooms. Among the authors that have done research on this topic are: Mathew Peacock (2001) studied the correlation between learning and teaching styles based on Reid's hypotheses. He found out that learners favoured kinaesthetic and auditory styles and disfavoured individual and group styles, while teachers favoured kinaesthetic, group and auditory styles. Rao Zhenhui (2001) diagnosed learning styles and developed self-aware EFL learners. He mentioned that an effective matching between teaching and learning styles can only be achieved when teachers are aware of their learners' needs, capacities, potentials, and learning style preferences. Rita and Kenneth Dunn (1993) studied how people learn and they noticed that some students achieved knowledge only through selective methods. They mentioned many elements that influence learning styles: environmental, emotional, sociological and physical elements. They also mentioned nine

elements that influence a teaching style: attitudes towards instructional programs among others. Felder (1995, 28) said that “the way in which an individual characteristically acquires, retains, and retrieves information are collectively termed the individuals’ learning styles”. He also added that mismatches often occur between learning styles in students in a language class and the teaching style of the instructor with unfortunate effects on the quality of the students’ learning and on their attitudes towards the class and the subject. Felder (2002) assured that “people have different learning styles that are reflected in different academic strengths, weaknesses, skills and interests”. Funderstanding (2008) said that learning styles are often influenced by heredity, upbringing and current environmental demands. Learners have a tendency to both perceive and process information differently. Tripp and Moore (2007), “students tend to focus on facts, data and algorithms. Some respond strongly to visual forms of information and many others preferred to learn actively”. Gilbert (2000) confirmed that “learning preferences facilitate the way individuals learn when the environment concerns with the various learning styles.

For this research we will be led by Joy Reid (1995) who claims that Learning styles are internally based on characteristics of individuals for intake of understanding of new information. All learners have individual attributes related to the learning processes. Some people may rely on visual presentations, others prefer spoken language; still others may respond better to hands-on activities. It is evident that people learn differently and these differences in learning abound ESL/EFL settings. She also categorizes learning styles into six types: visual, auditory, kinaesthetic, tactile, group, and individual.

The methodology of study

Statement of the problem

Learning second language, from students’ perspective is sometimes different from the instructors’ perspective. Instructors sometimes forget the fact that they once used to be students. Transformation from a traditional methodology to a contemporary, new methodology requires a lot researches and studies on the best way and the best method in order learners could acquire the second language successfully. Many dedicated instructors complain their students do not get what they are supposed to and they eagerly look for the help of different professionals from different fields such as: pedagogy, psychology, social work and etc. Many professionals in the educational field agree and suggest instructors to find out about their students’, using need analysis learn about their needs, wishes, aims and objectives at the beginning of the sessions. In other words, learning about students’ learning styles would help students a lot in order to make progress and acquire more knowledge. Determining styles, instructor gets the vision of the class learning style and tries to apply methodology that best suits students learning style.

Research objectives

The main objective of this research is to determine the learners’ learning style at International University of Sarajevo, level 2. There are also other objectives that affect the learning style of the students such as gender and ethnicity. Therefore, it is important as well to pay attention to and analyze the learning styles when it comes to the minor and major learning styles of the survey participants depending on ethnic group.

It is of particular interest to find out about the students’ learning styles at private institution, IUS. It will help academics teach more efficiently, feel encouraged and shown the path of better teaching. Integrating new ideas about students and their learning styles in the whole education process will change the methods instructors use and contribute to learners’ language acquisition.

Research design

The study adopted a survey as the most appropriate design for the investigation of the issues of interest. The survey method was used. A survey questionnaire was developed on the basis of prior similar studies. The form was designed to collect the participants’ basic demographic information (age, sex, level and nationality) and the major – minor and negligible learning styles of the students. In

answering the questions, the participants indicated their agreement/disagreement with each given statement on a 5-point Likert Scale.

In this evaluation research a quantitative and qualitative descriptive methodology was applied in this evaluation research. As well as, a heuristic orientation was given to this task because it was important to know the structure and essence of the students' experiences, feelings, thoughts and how they interpret them.

Subjects and Procedures

Subjects of this research included students from ELS /English Language School/ at International University of Sarajevo attending level 2. The focus group was made up of 18 males and 16 female participants from level 2, classified in a pre-intermediate level, ranging ages between 19 and 23 years old. 21 students come from Turkey; whereas 13 students come from Bosnia and Herzegovina. These participants follow the English teaching program constituted by the ELS and attend 25 hours of English lectures a week.

The survey was conducted in printed (sent 34) formats. There was no need for the electronic format. With 98% valid responses received, the study achieved an excellent response rate for this type of research. These responses were collected, encoded and analyzed.

The purpose of this research study is to identify:

A1 What are the students' learning styles at IUS, level 2?

A2 What are the major – minor and negligible learning styles of the students?

B Is there any difference in perceptual learning style preference among male and female students?

C Is there any significant differences in PLS preference among Turkish and Bosnian students?

Instrument and Data collection

Data about learning styles, students' motivation, and experiences with English as a foreign language and matching learning styles were gathered from the following instruments:

1. Reid's perceptual learning style preference questionnaire (PLSPQ, 1987)
2. Field notes were written during the research from in class observation
3. A written survey

This research was carried out at private educational institution called International University of Sarajevo. It is located in Ilidža, Sarajevo. The research was done within the Second session of the fall semester 2011/2012. The participants of the survey were distributed the questionnaire that consisted of thirty questions. They were also informed about the purpose of the research and later on about the results. It was completed within 25 minutes.

Data Analysis

Before collecting the data students were asked permission to participate in this research and they agreed to do it. First, quantitative scores were calculated for all questionnaire data (the written survey) in order to find out the students' learning styles. With these instruments learners identified the way they learn best and they prefer to learn. The questionnaire was composed by thirty statements that covered Reid's six learning style preferences, with a rating scale from one to five for each one of them. Students answered them as they applied to their study of English on a 5-point scale, Likert scale.

Reid (1995) classified learning styles as Major, Minor or Negligible. Major is a preferred leaning style, Minor is one in which learners can still function well, and Negligible is the one that can do learning the learning process more difficult. When the numerical value was assigned to the corresponding learning style, the numbers were added to obtain a total score and then it was multiplied by 2 determining the major, minor or negligible learning style. After that, all the results were analyzed by categorizing them into according to the aforementioned learning style preferences and presented in the findings. The main aim was to find out information related to learning styles.

Qualitative data as field notes were utilized to find out information related to learning styles. After collecting the data, patterns or coincidences were categorized according to the findings.

Results

Focus Group

Students' learning styles

The overall findings of all participants included in this study, as well as their preferences and performance in each learning style:

Research Question 1: **What is the student perceptual learning style (PLS) mostly preferred by level 2 students, IUS?**

¹ Style	Mean
Group	34 minor
Auditory	35.6 minor
Kinaesthetic	37.2 minor
Individual	37.6 minor
Tactile	38.2 major
Visual	40.08 major

The least popular style was the group style (34), though it was not negative. Some of the learners prefer working auditory (35.6) where students learn from *hearing words* spoken and from oral explanations. They may remember information by reading aloud or moving lips as read, especially when they are learning new material. Mean score indicates that the most representative and popular style was the visual (40.08), this means that individuals learnt by *seeing words* in books, on the chalkboard, and in workbooks. They remember and understand information and instructions better if they read them. They don't need as much oral explanation as an auditory learner, and they can often learn alone (37.6).

Also it can be seen that the individual (37.6) style was the third style preferred by the focus group. There were a percentage of them who did not have problems with this style and just a few presented some difficulty when working with this style.

Score also reveals that the tactile (38.2) was the second learning style that most learners' preferred (major). They had no trouble when using it (minor). That means that individuals learn by doing projects and by using their hands. They learn best when they have the opportunity to do "hands-on" experiences with materials. That is, working on experiments in a laboratory, handling and building models, and touching and working with materials provide them with the most successful learning situation.

It could be noticed that almost the half of the group performed very well in kinaesthetic style (37.2), and almost the same quantity of individuals can still function well in that style.

¹ Major learning Style Preference: 38 – 50
 Minor learning Style Preference: 25 – 37
 Negligible: 0 - 24

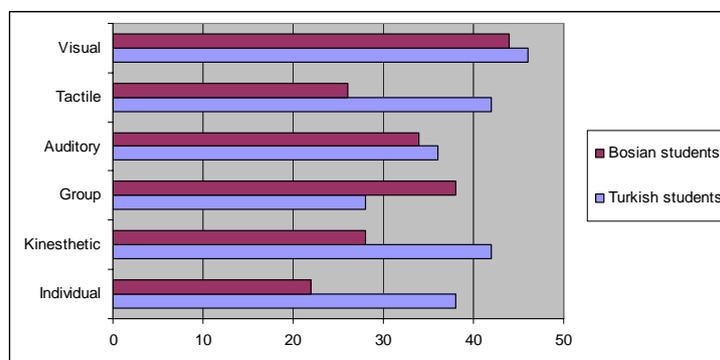
Research question 2: Is there any difference in perceptual learning style preference among male and female students?

	Gender	No	Mean /Major	Mean/Minor
Learning	F	17	Visual(42%)	Group(12%)
Style	M	17	Visual(39%)	Group(16%)

The study indicates that there was not significant difference between male and female students regarding their preferred perceptual learning style. Therefore, we can claim there is no significant difference between male and female students regarding their study preferences.

Research question 3: What are common learning styles for Turkish students / Bosnian students?

It has been hypothesized that there is a significant difference between Bosnian and Turkish students regarding their perceptual learning style preference. The findings confirmed it.



There is no significant difference between Bosnian and Turkish students favouring the visual and the auditory learning styles. However, there are significant differences when it comes to the tactile, group, kinaesthetic and individual styles. Research on cultural differences in learning styles indicates, for example, that members of industrialized societies and members of non-industrial societies respond to visual illusions quite differently (Glick, 1975) which is not common for this study.

Conclusion

Teaching at ELS is so similar to teaching English for Specific Purpose (ESP), because within two sessions students are meant to be capable to acquire English, as much as possible, in order to attend courses at the Departments which offer lectures in English language. We have investigated the students' learning styles at IUS, level 2; session 2: 2011/12, the major – minor and negligible learning styles of the students; common learning styles of Turkish students and Bosnian students and the differences between male and female student regarding their learning styles.

This research follows the qualifications according to Reid (1987) who classified learning styles into major, minor, and negligible. A negligible score indicates that students may have difficulty learning in that way. From the Mean score it can be noticed that there is not the one. It leads us to the results that students like and prefer all the learning styles and do not neglect any of them. Minor learning styles indicate areas where students can function well as a learner. Mean score illustrates that students performed well in the individual style (37.6) as they did in the kinaesthetic (37.2) followed by the auditory (35.6) and the group style (34). It is shown that the most outstanding learning style in which the students worked without any difficulty was the visual learning style followed by the tactile (38.2) learning style.

There have been significant differences between learning styles favoured by Bosnian and Turkish students. The differences appear when it comes to the tactile, group, kinaesthetic and individual

learning styles. From the interview, the reason for these significant differences students mention the fact that English language is taught from 4th grade in primary schools in Turkey, whereas English language is taught in Bosnia and Herzegovina from the 2nd grade. It shows that Bosnian children come across English language earlier than Turkish students. It is a variable that shows the reason there are more Turkish students at ELS rather than Bosnian students. In addition, we found out that there is no significant difference between male and female students regarding their study preferences.

It can be noticed from the results to the third question about common learning styles for Turkish students / Bosnian students. Another specific finding is the fact that Turkish students are pretty eager to do any kind of tasks when it comes to the task-based activities. They do not feel safe and comfortable enough to express their thoughts and ideas in the classroom.

Bosnian students are eager to speak and participate in speaking activities during the lessons. Sometimes instructors face the problems trying to motivate other students to speak.

It can be concluded that determining students learning styles will help and contribute a lot to the learning process. In order to provide suitable learning atmosphere and provide better teaching procedure it is necessary to adjust the questionnaire based on the PLSP. Matching learning and teaching styles is required in order to approach to the problem. Therefore, language instructors should define students' profiles and define their learning style, as well as create learning environment which includes and appreciate students learning styles. In that case, it is for sure that learning will be optimized.

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Appendix 1 Survey Questionnaire

International University of Sarajevo

Perceptual Learning-Style Preference Questionnaire

January, 2012.

Dear students,

I appreciate very much your decision to cooperate in this study. The study is on *Perceptual Learning-Style Preference*. Therefore, your contribution to the study and result of mentioned will be beneficial to the academic community, employees at ELS and you.

I kindly ask you to answer the questions freely. Your answers should reflect your opinion and attitudes about all asked questions and statements. Your answers will only and only be used for this study.

I am grateful for your assistance and help.

Basic demographic information:

LEVEL:

AGE:

SEX:

NATIONALITY:

Instructions

Read each statement on the following pages. Please respond to the statements **AS THEY APPLY TO YOUR STUDY OF ENGLISH**. Decide whether you agree or disagree with each statement. For example, if you strongly agree, mark:

SA Strongly agree	A Agree	U Undecided	D Disagree	SD Strongly Disagree
X				

Please respond to each statement quickly, without too much thought. Try not to change your responses after you choose them. Please answer all the questions. Please use a pen to mark your choices.

Item	SA	A	U	D	SD
1. When the teacher tells me the instructions I understand better.					
2. I prefer to learn by doing something in class.					
3. I get more work done when I work with others.					
4. I learn more when I study with a group.					

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

30. I prefer to work by myself					
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Self-Scoring Sheet

Instructions

There are 5 questions for each learning category in this questionnaire. The questions are grouped below according to each learning style. Each question you answer has a numerical value.

SA Strongly agree	A Agree	U Undecided	D Disagree	SD Strongly Disagree
5	4	3	2	1

Fill in the blanks below with the numerical value of each answer. For example, if answered Strongly Agree (SA) for question 6 (a visual question), write a number 5 (SA) on the blank next to question 6 below.

Visual 6 = 5

When you have completed all the numerical values for *Visual*, add the numbers. Multiply the answer by 2, and put the total in the appropriate blank.

Follow the process for each of the learning style categories. When you are finished, look at the scale at the bottom of the page; it will help you determine your major learning style preference(s), your minor learning style preference(s), and those learning style(s) that are negligible.

If you need help, please ask your teacher.

Visual	
Question	Score
6	
10	
12	
24	
29	
Total:	
Score = Total x 2	

Tactile	
Question	Score
11	
14	
16	
22	
25	
Total:	
Score = Total x 2	

Auditory	
Question	Score
1	
7	
9	
17	
20	
Total:	
Score = Total x 2	

Group	
Question	Score
3	
4	
5	
21	
23	
Total:	
Score = Total x 2	

Kinesthetic	
Question	Score
2	
8	
15	
19	
26	
Total:	
Score = Total x 2	

Individual	
Question	Score
13	
18	
27	
28	
30	
Total:	
Score = Total x 2	

Major learning Style Preference	38-50
Minor Learning Style Preference	25-37
Negligible	0-24

I heartly want to thank you for particiapting in this questionnaire.