

Identifying Learning Styles in EFL Classroom

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Abstract—This research aims to identify students' perceptual learning style preferences in EFL classroom on the basis of VARK learning style model. The VARK questionnaire version 7.1 has been used as a data collection tool. The study also gives the comparative analysis between the male and the female students studying at the same level. The data analysis highlights a considerable difference between the boys and girls learning preferences. It concludes that female students are found to be Aural learners (i.e. prefer to explain new ideas to others, discuss topics with other students and their teachers, attend lectures, and discussion groups). Whereas, Boys are found to be Kinesthetic learners (i.e. prefer field trips, doing things to learn them, hands-on approaches, using their senses). The study asks for better teaching methods and strategies, keeping in view students' unique ways of learning. The study suggests that the teachers should modify their teaching strategies in accordance with their students learning preferences. The awareness about students learning preferences increases the teachers' efficiency of their classroom orientation.

Index Terms—learning styles, VARK model, kinesthetic learners

I. INTRODUCTION

Every learner in a classroom receives and processes information in a unique way, that makes one student distinct from the others. It is now a proven fact that different people learn differently, and psychologists have attempted through the years to spell out the traits of different types of learners and categorize them into different "learning styles."

Learning styles is a group of a common ways of learning. Learning styles theory is based on the understanding that differences between individuals' processing capabilities lead to significantly different learning requirements [1]. Every learner may have a combination of learning styles, as he/she prefers different learning styles and techniques (i.e. multimodal learning preference). Whereas some learners may have only one dominant style of learning (i.e. unimodal learning preference) [2]. As a matter of fact, there are various learning styles in one classroom. So it becomes inevitable for a teacher to identify the learning style of his/her students so that the teacher should be able to use a variety of teaching techniques that are best to cater to all types of learners in his classroom.

In order to identify students learning styles, there are various approaches. One of the most common and widely used categorization of the various types of learning styles is Neil Fleming's VARK model i.e. Visual, Aural, Read/Write and Kinesthetic learners.

II. VARK MODEL

The concept of learning styles has been explored by various educationist, psychologists and researchers. There are many models of learning styles in education, for instance Howard Gardners Multiple intelligences Theory (1999), David Kolb's Learning styles [3], Albert Bandura's Theory (1977), Carl Jung's Theory.

One of the most commonly and widely used model is The VARK model, proposed by Neil Fleming [4]. Fleming (2001) defines learning style as "an individual's characteristics and preferred ways of gathering, organizing, and thinking about information. VARK is in the category of instructional preference because it deals with perceptual modes. VARK stands for Visual (V), Aural (A), Read/Write (R) and Kinesthetic (K).

According to Fleming (2001) Visual learners prefer maps, charts, graphs, diagrams, highlighters, different colors, pictures, word pictures, and different spatial arrangements. Aural learners like to explain new ideas to others, discuss topics with other students and their teachers, use a tape recorder, attend lectures, and discussion groups use jokes. Read/Write learners prefer lists, essays, reports, textbooks, definitions, printed handouts, readings, web- pages and taking notes. Kinesthetic learners like field trips, trial and error, doing things to understand them, laboratories, recipes and solutions to problems, hands-on approaches, using their senses and collections and samples. And therefore the term "learning styles" speaks to the understanding that every student learns differently. Technically, an individual's learning style refers to the preferential way in which the student absorbs processes, comprehends and retains information.

The VARK model acknowledges that students have different approaches to how they process information, referred to as "preferred learning modes." [5]. Students' preferred learning modes have significant influence on their behavior and learning. Students' preferred learning modes should be matched with appropriate learning strategies. Information that is accessed through students' use of their modality preferences shows an increase in their levels of comprehension, motivation and meta-cognition. By understanding what kind of learner you and/or your students are, you can now gain a better

perspective on how to implement these learning styles into your lesson plans and study techniques.

According to the VARK learning styles theory, every individual is predisposed to a preferred learning style, instinctively favoring one of the four styles that the theory describes. Some students process information most effectively by using a visual learning style, just as others rely more heavily on either an auditory style, read/write learning style or kinesthetic style of learning.

Identifying students as visual, auditory, reading/writing or kinesthetic learners, and aligning the overall curriculum with these learning styles, will prove to be beneficial for the entire classroom. Allowing students to access information the way they are comfortable with will increase their academic confidence.

III. OBJECTIVES

This study aims to identify students' perceptual learning style preferences in EFL classroom on the basis of VARK learning style model. The study also gives the comparative analysis between the male and the female students studying at the same level i.e. Bachelors level.

The objectives of this study were to:

1. Identify various learning styles existing in EFL classroom at bachelors level.
2. Find any differences between the learning styles of male and female EFL students studying at the same level. i.e. Bachelors level.

IV. METHODOLOGY

The VARK questionnaire version 7.1 has been used as a data collection tool. The questionnaire consists of 16 multiple-choices questions. The data has been gathered from 50 students of Qassim university i.e. 25 male and 25 female students, studying at Bachelors level in English department, Qassim University, Saudi Arabia. The data has been analyzed on Microsoft excel by calculating percentages.

V. DATA ANALYSIS

The data collected provides us with the following results regarding each question inquired through the questionnaire:

Q.1 Other than price, what would most influence your decision to buy a new non-fiction book?

Fig. 1 shows that the majority of girls choose option 4 Aural. On the other hand, the boys majority chose option 1, that was Kinesthetic. This shows that there are differences between boys and girls in learning boys are Kinesthetic learners and girls were Aural learners.

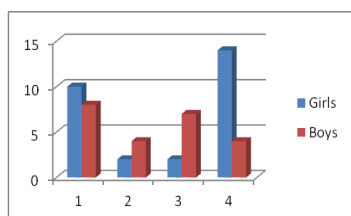


Figure 1. Decision to buy non-fiction book

Q.2 You have a problem with your heart. You would prefer that the doctor:

For the second question, girls' the most selected answer was 4 (Aural), and for the boys highest answer was 4 (Aural). In response to this question the result was the same. As shown by Fig. 2.

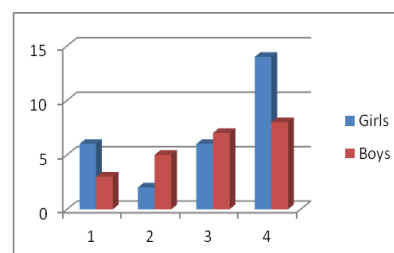


Figure 2. Preferred method for understanding some problem

Q.3 A website has a video showing how to make a special graph. There is a person speaking, some lists and words describing what to do and some diagrams. You would learn most from:

Fig. 3 shows that greater number of girls chose option 4, which is R/W in nature. The boys' majority opted for 2, which is Aural. This diagram also indicates the difference between the male and female learning style.

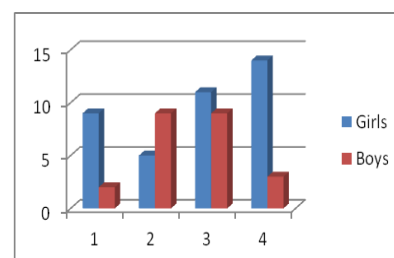


Figure 3. Preferred method for learning graphs

Q.4 You are helping someone who wants to go to your airport, the center of town or railway station. You would:

Fig. 4 depicts that girls highest response was 2 that it is Aural. On the other hand, boys choice was 1 and 2, which is Kinesthetic and Aural. This highlights the difference in learning styles between the two genders.

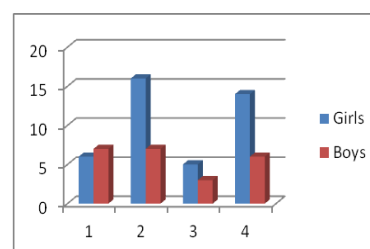


Figure 4. preferred method to tell someone the way

Q.5 A group of tourists wants to learn about the parks or wildlife reserves in your area. You would:

In Fig. 5, majority of girls' choice was option 4, that is Aural. And the boys chose 2, which is kinesthetic. This shows that girls prefer aural style whereas boys prefer kinesthetic one.

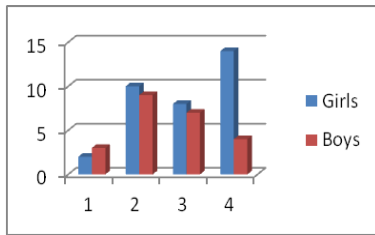


Figure 5. Preferred method of explaining something to tourists

Q.6 I like websites that have:

Fig. 6 shows that girls prefer visual style by choosing option 4. Whereas the boys chose option 1, hence favoring Read/Write style.

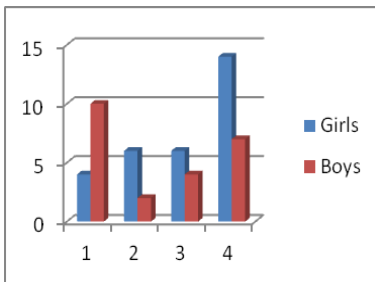


Figure 6. Preferred style of websites

Q.7 You are using a book, CD or website to learn how to take photos with your new digital camera. You would like to have:

For the seven question (Fig. 7), girls choice was 4, that is a Kinesthetic style. But for the boys the answers' choices was different they choose 2, a Visual one. Here again, the difference of learning style preference is evident.

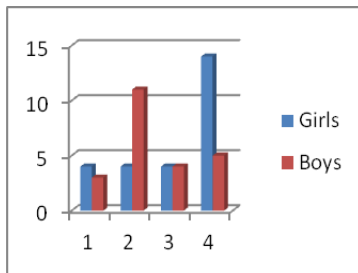


Figure 7. Preferred method for learning about gadget

Q.8 You are planning a vacation for a group. You want some feedback from them about the plan. You would:

Fig. 8 shows the similarity in the choice of boys and girls learning styles, here both chose option1, i.e. kinesthetic.

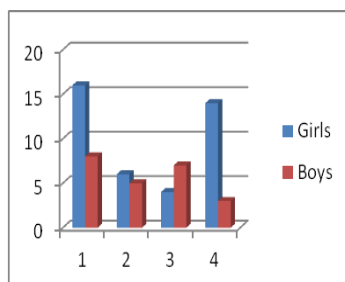


Figure 8. Preferred method for receiving feedback

Q.9 You are about to purchase a digital camera or mobile phone. Other than price, what would most influence your decision?

Fig. 9 for the responses to ninth question depicts that, girls chose option 2 and 4, an Aural and Read/Write style. On the other hand, the boys choice was 1 a Visual one.

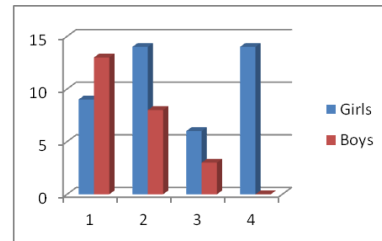


Figure 9. Preferred method for selecting shopping items

Q.10 You want to learn a new program, skill or game on a computer. You would:

In Fig. 10, girls chose 4, which is a Visual style. Whereas boys chose 2, a read/write style. The difference between the choice of learning styles is obvious.

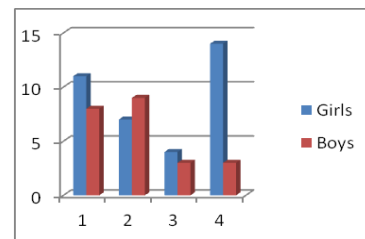


Figure 10. Preferred method for learning a new program/game on computer

Q.11 You have to make an important speech at a conference or special occasion. You would:

In response to eleventh question (Fig. 11), the girls chose option 4, a Visual one. Whereas the boys chose option 1, a Kinesthetic one.

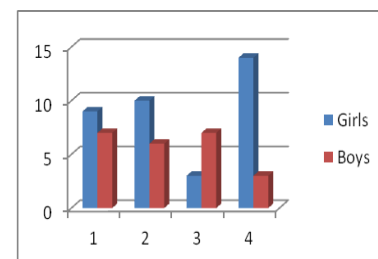


Figure 11. Preferred method of preparing speech

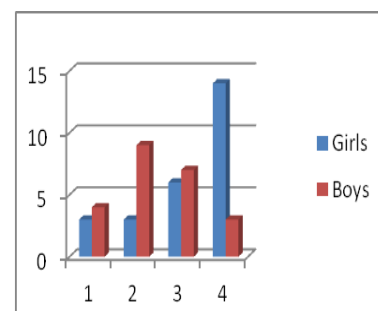


Figure 12. Preferred teaching method

Q.12 Do you prefer a teacher or a presenter who uses:

In response to question twelve (Fig. 12), girls chose option 4 i.e. an Aural style. On the other hand, boys chose option 2, a Read/Write style.

Q.13 You are going to choose food at a restaurant or cafe. You would:

In Fig. 13, in response to the thirteen question, the girls chose option 1 and 4 i.e. that is Kinesthetic and Read/Write styles. The boys choose option 3 an Aural style.

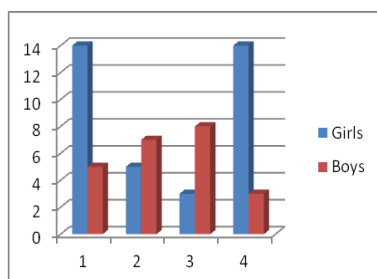


Figure 13. Preferred method of selecting food at restaurant

Q.14 You are going to cook something as a special treat. You would:

In Fig. 14, girls majority chose option 3, that is Visual style. Whereas the boys chose option 2, that is Read/write style.

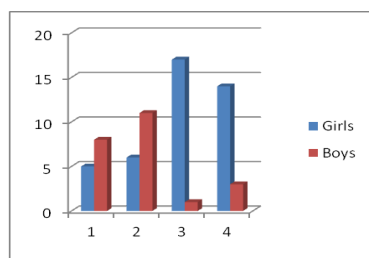


Figure 14. Preferred method of following a recipe

Q.15 You have finished a competition or test and would like some feedback. You would like to have feedback:

In response to the fifteen question (Fig. 15), girls chose 4, an Aural style. On the other hand, boys choose option 1, a Kinesthetic style.

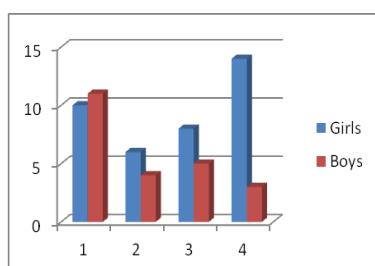


Figure 15. preferred method of receiving feedback on performance

Q.16 Remember a time when you learned how to do something new. Avoid choosing a physical skill, e.g. riding a bike. You learned best by:

In Fig. 16, the response to sixteenth question shows that girls chose option 4, a Read/Write style. Whereas the boys option 1, an Aural style.

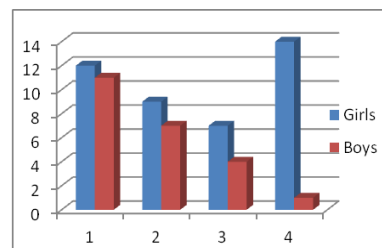


Figure 16. Preferred method of learning something new

The following table (Fig. 18) gives a clear comparative analysis of the boys and girls preferred learning styles. The pie chart (Fig. 17) shows that majority of girls have aural learning style i.e. 44%. after that comes visual and Read-Write learning styles. Whereas boys prefer Kinesthetic learning style i.e. 44%. Read-write comes second in priority.

Comparative analysis

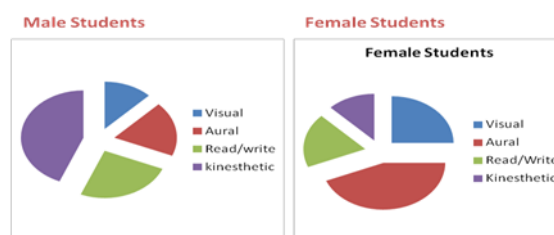


Figure 17. Comparative analysis of male and female students choices of styles

Data analysis

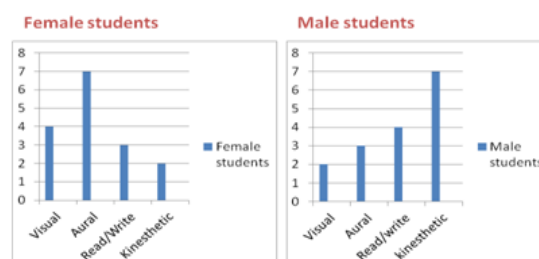


Figure 18. Graph showing male female options of styles

TABLE I. MALE STUDENTS

Learning styles	Percentage
Visual	12%
Aural	19%
Read/write	25%
kinesthetic	44%

TABLE II. FEMALE STUDENTS

Learning styles	Percentage
Visual	25%
Aural	44%
Read/write	19%
kinesthetic	12%

VI. CONCLUSION & FUTURE IMPLICATIONS

All of the above data analysis shows that there is a significant difference in the learning styles of male and female students, studying the EFL subjects at the same level. The data also concludes that female students are found to be Aural learners, who prefer to explain new ideas to others, discuss topics with other students and their teachers, attend lectures, and discussion groups use jokes. Boys are found to be Kinesthetic learners, who would prefer field trips, doing things to learn them, recipes and solutions to problems, hands-on approaches, using their senses.

The research provides our teachers with a better and comprehensive framework of their learners learning preferences. This calls for better teaching methods and strategies, keeping in view students' unique ways of learning. Teachers should modify their teaching strategies in accordance with their students learning preferences. The awareness about students learning preferences increases the teachers' efficiency of their classroom orientation. The completion of Vark questionnaire by the students is recommended in the beginning of the session.

APPENDIX QUESTIONNAIRE

The VARK Questionnaire version 7.1 How Do I Learn Best?

Choose the answer which best explains your preference and tick the box next to it. Please tick more than one if a single answer does not match your perception. Leave blank any question that does not apply.

1. *Other than price, what would most influence your decision to buy a new non-fiction book?*
 - A. It has real-life stories, experiences and examples.
 - B. Quickly reading parts of it
 - C. The way it looks is appealing.
 - D. A friend talks about it and recommends it.
2. *You have a problem with your heart. You would prefer that the doctor: Used a plastic model to show what was wrong.*
 - A. Gave you something to read to explain what was wrong.
 - B. Showed you a diagram of what was wrong.
 - C. Described what was wrong.
3. *A website has a video showing how to make a special graph. There is a person speaking, some lists and words describing what to do and some diagrams. You would learn most from:*
 - A. Seeing the diagrams.
 - B. Listening.
 - C. Watching the actions.
 - D. Reading the words.
4. *You are helping someone who wants to go to your airport, the center of town or railway station. You would:*
 - A. Go with her.
 - B. Tell her the directions.
 - C. Write down the directions.
 - D. Draw, or show her a map, or give her a map.
5. *A group of tourists wants to learn about the parks or wildlife reserves in your area. You would:*
 - A. Give them a book or pamphlets about the parks or wildlife reserves.
 - B. Take them to a park or wildlife reserve and walk with them.
 - C. Show them maps and internet pictures.
 - D. Talk about, or arrange a talk for them about parks or wildlife reserves.
6. *I like websites that have:*
 - A. Interesting written descriptions, lists and explanations.
 - B. Things I can click on, shift or try.
 - C. Audio channels where I can hear music, radio programs or interviews.
 - D. Interesting design and visual features.
7. *You are using a book, CD or website to learn how to take photos with your new digital camera. You would like to have:*
 - A. Clear written instructions with lists and bullet points about what to do.
 - B. Diagrams showing the camera and what each part does.
 - C. A chance to ask questions and talk about the camera and its features.
 - D. Many examples of good and poor photos and how to improve them.
8. *You are planning a vacation for a group. You want some feedback from them about the plan. You would:*
 - A. Phone, text or email them.
 - B. Describe some of the highlights they will experience.
 - C. Use a map to show them the places.
 - D. Give them a copy of the printed itinerary.
9. *You are about to purchase a digital camera or mobile phone. Other than price, what would most influence your decision?*
 - A. It is a modern design and looks good.
 - B. Reading the details or checking its features online.
 - C. Trying or testing it.
 - D. The salesperson telling me about its features.
10. *You want to learn a new program, skill or game on a computer. You would:*
 - A. Talk with people who know about the program.
 - B. Read the written instructions that came with the program.
 - C. Use the controls or keyboard.
 - D. Follow the diagrams in the book that came with it.

11. You have to make an important speech at a conference or special occasion. You would:

- A. Gather many examples and stories to make the talk real and practical.
- B. Write a few key words and practice saying your speech over and over.
- C. Write out your speech and learn from reading it over several times.
- D. Make diagrams or get graphs to help explain things.

12. Do you prefer a teacher or a presenter who uses:

- A. Demonstrations, models or practical sessions.
- B. Handouts, books, or readings.
- C. Diagrams, charts or graphs.
- D. Question and answer, talk, group discussion, or guest speakers.

13. You are going to choose food at a restaurant or cafe. You would:

- A. Choose from the descriptions in the menu.
- B. Look at what others are eating or look at pictures of each dish.
- C. Listen to the waiter or ask friends to recommend choices.
- D. Choose something that you have had there before.

14. You are going to cook something as a special treat. You would:

- A. Cook something you know without the need for instructions.
- B. Use a cookbook where you know there is a good recipe.
- C. Look on the Internet or in some cookbooks for ideas from the pictures.
- D. Ask friends for suggestions.

15. You have finished a competition or test and would like some feedback. You would like to have feedback:

- A. Using examples from what you have done.
- B. Using graphs showing what you had achieved.
- C. Using a written description of your results.

D. From somebody who talks it through with you.

16. Remember a time when you learned how to do something new. Avoid choosing a physical skill, e.g. riding a bike. You learned best by:

- A. Listening to somebody explaining it and asking questions.
- B. Diagrams, maps, and charts - visual clues.
- C. Watching a demonstration.
- D. Written instructions – e.g. a manual or book.

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