



Gender Differences in Learning Style Preferences Case Study: 3rd Year LMD Students

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Abstract

Research on Learning Styles and Approaches to Teaching has crystallized in the conclusion that students have different ways to learn, retain, retrieve, and process information while instructors have different teaching methods. At this juncture, the students' Learning Style is closely related to and dependent on the instructor's method of teaching. Given this link and dependency, mismatches may occur when the students' Learning Style is not taken into account. Mismatches may also occur in the absence of another key factor, gender. In the "fight" between those who consider Learning Style and gender as inconclusive data and those who insist on their impact, would a closer look through a combination of both yield more information? To answer the question, questionnaires were submitted to third-year LMD students at Abd El Hamid Ibn Badis University, Department of Foreign Languages. 117 students completed them (67 females, 50 males) whose age ranged from 18 to 26.

Introduction

Learning Styles have been defined as the manner in which and the conditions under which learners perceive, store, process, and recall information. This field is complex, with over 70 models which are the result of numerous assumptions. One assumption has received in depth attention and evoked two perspectives. The first contends that there are differences between male and female brains; females do better than males at multitasking and at easily making quick transitions. Regarding males, it is only the left hemisphere that reacts. The second perspective argues that there are anatomical differences between females' and males' eyes and ears. Females acquire through binocular vision; males use either their eyes or ears; rarely both. The all-important question then is: do males and females have distinct ways of learning?

1. Definition

According to Felder and Henriques, a student's way to learn, retain, retrieve, and process information are various and manifold. Some learn by seeing; hearing; memorizing; reflecting. Instructors also have different teaching methods. Some prefer to discuss; others tend to lecture or to demonstrate etc. It is safe then to assume that a student's way will be closely related to and dependent on the instructor's method. These ways are termed *Learning Styles*. Felder and Henriques [1995] have extensively discussed them and contended that the "learning styles pertain to the manners in which individuals acquire information" and argued that many mismatches may occur between an instructor's method and a student's Learning Style. There are five types of learners.

2. Types of Learners

2.1. Sensing and Intuitive Learners

Jung, in his *Psychological Types*, made clear that Sensing and Intuitive Learning constituted different ways in which people perceived the world. Sensation entailed observing and gathering data; Intuition involved speculation and imagination. Three scholars, Moody [1988], Ehrman, and Oxford [1990] attempted to assess how learners preferred to approach learning. They came with the same result. Sensors tend to be concrete and methodical; the intuitors tend to be abstract and imaginative. Given this, they write that language instruction, "[...] to be effective [...] should therefore contain elements that appeal to sensors and other elements that appeal to intuitors." [Ehrman, 1990].

2.2. Visual and Verbal Learners

According to Dale, people in their majority acquire and retain information more from a visual presentation than from a written or spoken one. Language instruction is, however, mainly verbal. Each category will feel at ease and will learn better if it is presented with the material that suits it. Consequently, the challenge to language instructors is to devise ways of augmenting their verbal classroom presentation with nonverbal visual material [Dale, 1969].

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2.3. Active and Reflective Learners

The third category is the Active and Reflective. The information is converted into knowledge through a complicated process. The latter is divided into two groups, *active experimentation* and *reflective observation* Kolb [1984]. While the former involves action with the external world, the latter involves an introspective examination and manipulation. The former learns well when asked to do something physical; the latter when he/she is given the opportunity to think about the information he/she is provided with [Kolb, 1984; McCarthy, 1987].

2.4. Sequential and Global Learners

The difference between the Sequential and Global resides in that the Sequential absorbs information; he takes the information in unconnected chunks and then succeeds in understanding in large leaps. The image he presents is that of a slow student who does poorly on homework and exams. In fact, it is not until he/she grasps the total picture that he/she perceives the connections that might escape the Sequential, who, it is worthy of note, may not seize the large context of knowledge and the relationships with other subjects.

2.5. Inductive and Deductive learners

Induction is "reasoning progression"; the learner moves from particulars to generalities. On the contrary, Deduction is quite the opposite. Surprisingly, a large percentage of classroom teaching has been found exclusively deductive. This does not imply that Induction is unimportant, for, to introduce some new components promotes learning. Under this head, to introduce a completely new material and to link it to another that had been subject of study and of observation is purely inductive. Coulter [1983] explained that the difference was similar to language acquisition and learning. After a language had been acquired, communication ensued.

3. The Multistyle Approach to Foreign Language Education

To improve academic achievement, it is desirable to match styles. Students become bored and yield bad results when they face a style of teaching that is contrary to their learning style. Psychologists themselves agree with this indisputable fact: when education is presented in a variety of modes, acquisition becomes easier. And figures speak for themselves: students retain 10 percent of what they read; 26 percent of what they hear; 30 percent of what they see; 50 percent of what they see and hear; 70 percent of what they say, and 90 percent of what they say as they do something [Stice, 1987].

4. Psychologists' and Linguist's Perspectives

The psychologist's findings on the issue of learning style have enabled them notice "variations" in human brain anatomy and function. The variations that take place throughout the brain automatically influence the elements that are proper to human learning. The opinions are divided. Among those who reject any impact one finds, Loulidi [1990] and Graham [1997]. Loulidi writes that a male' reluctance poor performance can be explained by socio-cultural pressures, sex and career stereotyping, and attitudes to the subject and to the teacher and sees the so-called biological explanation as "scant and inconclusive." For Graham, stereotyping, socialization, and attitudes better explain a female's eagerness to study languages and good performance. She writes that "the innate differences are non-existent or at best insignificant."

5. Data Interpretation

Items in the survey were grouped according to the scale they belonged to. They were divided as follows: visual, auditory, group, individual, global, sequential, introvert, and extrovert. The scoring algorithm on the LSP website was applied to identify individual learning style preferences. The data were divided into two groups; male and female. The percentages were drawn out from each group, and then a comparison was made so as to assess gender differences.

6. Discussion and Analysis of the VARK questionnaire

The first analysis showed that the females' visual preference was higher than males' (25% vs. 17%). While learning, males' tended to be extrovert (22%); women introvert (17%). Males preferred to work individually; females in groups (7% vs. 13%). Furthermore, the inventory revealed that when dealing with ideas, males were more global (13%) females (7%), and while handling possibilities, females appeared more sequential (7%) males(2%). A quite similar percentage of males (22%) females (20%) preferred information to reach them via auditory modality. The students were allowed to choose



multiple answers per item to adequately describe their preferred response(s) to the situations presented. The total number of responses was tallied for each of the four sensory modalities (V, A, R, and K) and for all possible combinations of the modalities (e.g., VA, VRK, etc.) The scoring algorithm on the VARK website was then applied to identify each student's modality preferences.

The second analysis showed the percentages of male and female students who preferred unimodal styles. A quite similar percentage of males and females preferred information to reach them via a single sensory modality for information intake. Out of the students who preferred unimodal presentation of information (either V, A, R, or K), some preferred single V (32, 6% male vs. 33, 33% female), single A (39, 13% male vs. 41.66% female), single R (19.56% male vs. 16.66% female), or single K (8.33% male vs. 8.69% female) modalities. There were no gender differences in the percentages of male and female students who preferred unimodal styles of information presentation. It also showed the percentages of male and female students who preferred two, three, or four modes of information presentation. Some preferred two modes (bimodal, 32.6% male vs. 33.33% female), three modes (trimodal, 13.6% male vs. 16.66% female), and four modes (quadmodal, 54.34% male vs. 50% female.) There were no gender differences in the percentages of males and female students who preferred bi-, tri-, or quadmodal styles of information presentation. The analysis also permitted to demonstrate the breakdown of bi-, tri-, and quadmodal preferences by gender. Out of the male and female students who showed a preference for two modes of information processing, some preferred the combination of modes V and K (8.69% males vs. 3.33% females); V and A (4.34% males vs. 16.66% females), R and K (3.33% males vs. 2.17% females), V and R (8.33% males vs. 2.17% females), A and R (2.17% males vs. 5% females), and A and K (4.34% males vs. 3.33% females). Some students preferred the combination of modes V, R, and K (19.56% males vs. 6.66% females), V, A, and R (4.34% males vs. 6.66% females), V, A, and K (4.34% males vs. 3.33% females), A, R, and K (2.17% males vs. 10. % females). A number of male and female students were quadrimodal, preferring all four modes of information processing (V, A, R, and K: 45.65% males vs. 33.33% females).

Conclusion

It is too clear for dispute that each student has a specific learning style, and as noticed, the preferences differed between the two sexes. To understand a student's learning styles preferences is of the utmost importance. And, although being aware of these styles may not lead to effective teaching, instructors, in order to be more effective, need to be cognizant of these differences and subsequently need to broaden their range of presentation styles accordingly.

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