

الفصل السادس

LEARNING STYLES ADOPTED BY HIGHER STUDIES STUDENTS AND THEIR RELATIONSHIP WITH FIELD OF STUDY

Abstract :

The research aims at investigating the learning styles adopted by higher studies students in Basic Education College, and knowing if there is a relationship between student learning style and their field of study. The sample of the research consists of (63) higher studies students (all the students in preparatory year 2012-2013) in the following fields (Departments): History, English language, Arabic language, Sports, Teaching Methods, and Educational psychology. The descriptive approach is used in this study. By adopting Felder – Silverman Learning and Teaching Styles Model (1988), the researcher used questionnaire as a tool to collect data from the sample. Solomon - Felder index of learning style (1991) is applied after summarized into 20 items, each 5 items represent 4 main learning styles (processing: active – reflective, perception: sensing – intuitive, input: visual-verbal, understanding :sequential–global). The results revealed that the common learning styles were located in the cycle of the following learning style respectively:

Active, Sensing, Sequential, and Verbal. There was no further impact of the fields of specialization on learning styles.

Keywords: Learning style, higher studies, Felder- Silverman model, Basic Education College.

1-PROBLEM OF THE RESEARCH:

As noticed by researcher as a lecturer of curriculum and teaching methods in higher studies in Basic Education College –University of Mosul that most of students have no attention to their learning style that allows them to focus on a specific style and try to develop it in order to acquire their knowledge in an effective way and fit to their field of study, so it is quite necessary to do a survey study to discover the learning style(s) of those students for the purpose of developing their thinking and learning style.

2-AIMS OF THE RESEARCH :

1. What are the learning styles adopted by higher studies students in Basic Education College ?
2. Is there relationship between student learning style and their field of study ?

3-RATIONALE OF THE RESEARCH :

It is very important to understand and explore each individual learning style. Analyzing one's own particular learning style can be very helpful and beneficial to the students by aiding them in becoming more attentive

learners, which ultimately will increase educational success. Discovering this learning style will allow the student to determine his or her personal strengths and weaknesses and learn from them to help student learn effectively. For instance some students tend to pick up information better when it is presented numerically, other when it is presented through pictures or verbally .

This study hopes to contribute to a comprehension of the relationships of learning style and field of study. Limited in number, the studies conducted with respect to the topic under investigation , especially in Iraq .

4-THEORETICAL BACKGROUND :

Nowadays individual differences are important components in learning. They also affect teaching and teaching process in term of teacher and students. One of the most important points of individual differences is learning style (kocagoglu, 2010, p 54).

Reid (1995, cited in Tabanlioglu, 2003) states that developing an understanding of learning style will enable students to take control of their learning and to maximise their potential for learning.

So learning styles are defines as" a term that describes the variations among learners in using one or more senses to understand, organize, and retain experience."(Tabanlioglu, 2003, p. 7). Learning style can also be defined as an

Individual's natural or habitual pattern of acquiring and processing information in learning situations. A core concept is that individuals differ in how they learn. The idea of individualized learning styles originated in the 1970s, and has greatly influenced education (Wikipedia, 2013)

Now what are the features of learning styles?

To answer this question we can point out the following:

- A person s' learning style has to do with the way he or she processes information in order to learn and apply it.
- No one approach or style is more or less effective than any other, what does matter is whether it is suited to a particular every day task or academic situation.
- Most students learn best when the style of presentation is in agreement with their preferred learning style.
- Learning style is the application of a particular cognitive style to a learning activity. It is seen as relatively fixed.
- If students become aware of their preferred learning styles, they will then be more able to recognize their strengths and weaknesses. By doing this they can then develop strategies when or if there is a mismatch between their preferred style and their academic situation (Monash University,2013).

- Enable learners to be more empowered in variety of learning situations.
- Can be influenced by many factors among which are learners' genetic background , their culture, and learning experience. (Mahmood,2013, p.11).

It is important to point out that some researchers distinguish between learning styles and learning strategies, as Al- Jobori (2012,pp. 26-27) indicates that " Learning styles are internally based characteristic , whereas learning strategies are external skills which students use to improve their learning ".

Learning styles take different models, the most common and widely used are:

- David Kolb's Model (Converge – Diverge – Assimilate – Accommodate). (Smith,2001).
- Neil Fleming's Model (Visual – Auditory – Kinaesthetic or Tactile) .(Softball NSW Umpires Association, 2012).
- Carle June's model (Extroversion vs. Introversion – Sensation vs. Intuition – Thinking vs. Feeling – Judging vs. perceiving).
- Felder – Silverman Model (Sensing / Intuitive, Visual / Verbal, Active /Reflective, Sequential /Global).

The present research adopted the Felder- Silverman Model, so more details are giving as follows:

Felder (1996) indicates that the Felder- Silverman Model classifies students as fitting into one of the following four learning style dimensions:

1. **Sensing learners** (concrete, practical, oriented towards facts and procedures), OR **Intuitive learners** (conceptual, innovative, oriented toward theories and meanings).
2. **Visual Learners** (prefer visual representations of presented materials : pictures, diagrams, flow charts) OR **Verbal learners** (prefer written and spoken explanation).
3. **Active Learners** (learn by try thinks out, working with others) OR **Reflective Learners** (learning by thinking through working alone).
4. **Sequential Learners** (linear, orderly, learn in small incremental steps).OR **Global Learners** (holistic, system thinker, learn in large leaps)(Felder,1996,p.19).

According to Felder and Spurlin (2005) each of the dimensions has parallels in other learning style models. The first dimension – sensing/ intuition is one of four dimensions of Jung's theory of psychological types. The third dimension – active / reflection is a component of Kolb's learning style. The second dimension visual/verbal is analogous to the visual – auditory-kinaesthetic (VAK) formulation of modality theory .

The fourth dimension – sequential global has numerous references (Felder and Spurlin, 2005 ,p.103).

5 -PREVIOUS RELATED STUDIES

The researcher survey the literature related to learning styles, and he chose the most recent studies, as follows:

- Tabanlıoğlu(2003): This study aimed to identify the learning styles and strategies of (60) pre - intermediate students in Turkey .The instrument of the study was Perceptual Learning Style Preference Questionnaire (PLSPQ) . The study revealed that students major learning styles preference were auditory learning and individual learning.
- Kocakoglu(2010):In this study, learning style of 223 primary school teachers in different branches in Turkey were determined .The study adopted Kolb's Learning Style Inventory. The results showed that 48% of teachers have Converger learning style, 24% of them have Assimilator learning style, 18% have Accommodator, and 10% have Diverger learning style. No correlation was seen between learning style and branches.
- Randelovic and Bojan(2013):. The aim of this paper is to explore the difference between learning styles and certain aspects of well- being, it is based on Myers-Briggs Learning Styles Model, which is derived from Jung's Model. The sample consisted of 173 fourth grade

secondary school students from Serbia, the result showed that the most dominant learning styles are: feeling 78% , extraversion 75% , sensing 73% , , judging 66%.

- Sengul, Katranci and Bozkos (2013): The purpose of this study is to determine the learning styles of prospective teachers, and to analyse whether these styles differ according to type of programme that learners are studying. The study group consisted of 487 prospective teachers from Kocaeli University. Kolb's Learning Style Inventory was used as the data collection tool. The result revealed that there was not a significant difference between the program types and learning styles. It seems from the previous studies that all of them used the descriptive method, applied different instrument, two of them used Kolb's Inventory, no one adopted Felder- Silverman Model, and that enhances the significance of the present research.

6 - METHOD AND PROCEDURES

Descriptive approach is used in this study which 'is concerned with how what is, or what exists is related to some preceding event that has influenced or affected a present condition or event " (Adams and Schvaneveldt, 1985, p.110). By adopting Felder – Silverman

Learning and Teaching Styles Model (1988), the researcher used questionnaire as a tool to collect data from the sample, Solomon - Felder index of learning style (1991) is applied after summarized into 20 items, each 5 items represent 4 main learning styles (processing : active – reflective , perception : sensing – intuitive , input: visual- verbal , understanding : sequential – global) .

To achieve the Face validity of the tool, the researcher presented it to (4) juries in the College of Basic Education (Mosul University), they accepted all the items with few corrections. Also to verify the reliability of the instrument, Test- Retest was used, the reliability coefficient was 0, 80.

7- SAMPLE OF THE RESEARCH

The sample of the research consists of (63) higher studies students (all the students in preparation year 2012-2013) in the following fields (Departments) : History, English language, Arabic language, Sports, Teaching Methods, Educational psychology, as Clear in the following table .

Table 1.
The distribution of the sample according to field of study.

of students Field of study	NO.
History	9
English Language	5
Arabic Language	14
Sports	15
Teaching methods	14
Educational psychology	6
Total	63

8 -DATA COLLECTION

After preparation of the tool, the researcher collected the data from the sample, the process of collecting was completed in (3) days, during the second semester of 2012-1013 academic year. The researcher supervised the response of the students by himself, he gave them 15 minutes for answering, as the juries recommended.

9 - STATISTICAL METHODS

Descriptive statistics were used to explore frequencies and percentages measures for different types of learning styles, also Chi Square was applied to find the relation between learning styles and field of study (Tawfek and Athnasuos 1977, p292-304). Data was transferred into

Excel format, and it was analysed by SPSS statistics programme.

10 - RESULTS PRESENTATION AND DISCUSSION

The results of the research will be presented according to the two aims of the research as follows:

Firstly: - What are the learning styles adopted by higher studies students in Basic Education College?

To answer this question the collected data were analysed by calculating the frequencies and percentages of each kind of learning styles , table(2) show the result of the first aim.

Table (2)
Frequencies and percentages of learning styles adopted by the sample of the study (No= 63) .

Learning Styles		Frequencies	Percentages
Perception	Sensing	42	66.7
	Intuitive	21	33.3
Input	Visual	24	30.1
	Verbal	39	61.9
Processing	Active	45	71.4
	Reflective	18	28.5
Understanding	Sequential	41	65
	Global	22	35

It is seen from table (2) that about 74% of the students in the sample prefer Active learning style, which about 28% of them are reflective, the possible reason of this result is that the majority of students are

working as one group, they spent most of their time in the semester to attend the lectures, listening and taking notes, on the other hand only few students pay attention to study alone in an effective manner in order to think deeply in their learning. So they learn in order to pass the exam. If we look at the next high level learning style, we will find that 66.7% of higher students have sensing learning style; against 33.3% have intuitive learning style. The researcher explains this result by saying: the student's research sample depending in their learning on the material they have studied such as books, journals, and they copy the items, paragraph, and full pages. While few of them looking for concepts 'or theories, they suffer from the weaknesses of analyzing thinking, with no attention to meta- cognition thinking.

The third learning style which can be considered as the top in use, is sequential learning style, which gained 65% , that means those students are working in their learning in a linear manner, dealing with knowledge as an orderly event, and as separated facts , with no theoretical vision or global though , for that reason 35% of students have global learning style as the table(2) revealed .

At the end of analyzing the results of table (2) we find that most (61.9%) of higher studies students

(the sample), have verbal learning style and about (30.1%) have visual learning style. The possible reason of this result is that the fields' study of the students is human sciences except sport education, on the other hand they transfer information through listening and speaking , they use words such as " tell me " , " how to memorize these facts" . The most interest of those students is to answer question verbally, to express their ideas by spoken words.

Secondly: Is there a relationship between students learning style and their field of study?

TO answer this question Correlation between students 'learning styles and their field of study is analyzed by Pearson Qi square. The students of higher studies (sample of study) have six field of study, those fields are: History; English Language; Arabic Language; Sports; Teaching Methods; Educational Psychology. Table (3) below shows the results of Pearson Qi square about the correlation between learning style and fields of study.

Table (3)

Chi- Square results about correlation between learning styles and students field of study.(NO=63).

Learning Styles		Ara bic L. (14)	Educat ional PS. (6)	Teac hing M.(1 4)	Eng lish L.(5)	Spo rt Ed.(15)	Hist ory (9)
Percepti on	Sensi ng	9	3	9	4	11	6
	Intuiti ve	5	3	5	1	4	3
Input	Visua l	4	2	6	2	9	1
	Verba l	10	4	8	3	6	8
Processi ng	Activ e	7	5	11	4	13	5
	Refle ctive	7	1	3	1	2	4
Understa nding	Seque ntial	8	4	9	3	9	5
	Globa l	6	2	5	2	6	4

Chi-square value = 6, 89

According to Chi – Square test there is no significant correlation between learning styles and students fields of study , the calculating chi–square value (6,89) is less

than the tabulating chi-square value (7,82) , within (0,05) level of significant and degree of freedom (3). This result means that the different fields of study have no effect on determining the learning styles of students.

The possible reason of this result is that the majority of students have gained their learning style from the system of education in Iraq in the previous stages of education, which is still traditionally based on recitation and lecturing method in teaching, with no attention given to develop students learning styles and strategies, as well as the central aims of studying for most of students is to pass the exam.

The result of this aim agrees with the result of Kocakoglu (2010) study and Sengul, Katrancı and Bozkus (2013).

11-CONCLUSION,RECOMMENDATIONSAND SUGGESTIONS

At the end of the research we can conclude that the majority of higher studies (the sample) have a learning style that is influenced by their previous education ,we also found that the common learning styles located in the cycle of the following learning style, respectively: Active, Sensing, Sequential, and Verbal. Furthermore there is no impact of the fields of specialization on learning styles.

According to the results, the following Recommendations can be made:

- The necessity of including learning styles with different models in the program of higher studies in the College of Basic Education.
- Working on training the faculty members in the college about how to develop different learning styles in their students by using different teaching strategies.
- Introduce the students in cooperation workshop according to convergent studies, i.e. Arabic language students with History students, Teaching methods students and Educational Psychology students.

Advices for further studies could be the following:

- This study can be repeated with undergraduate students in the College of Basic Education.
- The same study should be conducted with other variables, such as academic achievement, and gender.
- Comparative study can be carried out between learning styles and learning strategies.

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