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Students' Learning Styles at the University Level

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Abstract

The research was planned to explore the students learning styles at the university level. Students from the University of Agriculture Faisalabad, Pakistan constituted the sample. A sample of 200 respondents (100 male and 100 female) was selected. To probe the learning style of university students an inventory was adopted. Data was analyzed and interpreted in tabular form.

The study found that from the four stages of learning cycle, majority of the students preferred abstract conceptualization (Thinking). The results indicated that according to the division of gender, the male students preferred Assimilative learning style and Divergent learning style was the minor preference. The female students preferred Convergent learning style and the minor preference was Accommodative learning style.

It is recommended the Convergent learner prefer to do things themselves as teacher may interact with students and involve them, it's more effective.

Key words: Learning styles, Learning preferences, Cyclic.

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Introduction

Learning plays significant role in every individual's life. It is a fundamental component of education. Learning includes vast experiences which influence behavior and attitude of a person. Learning should be constructive and in the benefit of the society. Through learning, skills, attitudes, habits and mental states change (Ahmad, 2006).

According to Kolb (1984) education is a process in which knowledge is created because of the change in the happenings. Four learning modes are the main features of experiential learning: (a) Concrete Experience CE (feeling); (b) Reflective Observation RO (watching); (c) Abstract Conceptualization AC (thinking); (d) Active Experimentation AE (doing).

The guidelines of partiality can be differentiated in terms of the following learning styles: diverge dominant learning abilities are (CE & RO), assimilator preferred (AC & RO), converge dominant learning abilities (AC & AE), accommodator preferred (CE & AE).

The divergent dominant learning abilities are concerned with the observation instead of action. More attention is paid to the collection of information and critical thinking is used to respond to problem situations. They focus on various aspects of the problem. Innovative ideas and creative thoughts are vibrant in Divergent learning. They prefer group while working. They are very open-minded and consider feedback as a very important element.

Assimilation revolves around the understanding of knowledge and rationally organizing it. They are science-oriented and rely on theory. Their interest areas are reading, lectures and thinking. Converging individuals are focused on solving problems. They explore the solutions on the basis of technical and practical implications. The Accommodating individuals rely on their intuitional indications. They accept challenges, prefer fresh experiments and are in the favor of implementing the latest course of actions. They form their personal opinion based on assembled information. They work best in team. They work intelligently keeping in mind from various aspects to achieve the desired objective (Kolb 1984).

Cezair, et al (2003) explored in his study that female students extremely preferred Divergent learning style whereas male students were in favor of Assimilative learning style. Both male and female students least preferred Accommodating learning style.

Adel.Lari and Louis (2003) examined for subjects: accounting, management, marketing and business. They explored that all the four learning styles existed in these areas. However preference of majority was Assimilator and Convergent Learning style.

The present study examines students' learning styles at university level. The University of Agriculture, Faisalabad, Pakistan is taken as a sample to examine learning styles at higher education level. 200 students were taken from different departments. Focus of the study was to explore the most preferred learning style at university level.

Objectives

- 1) To discover the learning styles of male and female students at university level.
- 2) To uncover the major and minor learning style preferences.
- 3) To present recommendation for the improvement of learning styles.

Research Methodology

This study was conducted to explore students' learning styles at higher level. This research first identifies types of students learning style at the university level. The second part of this investigation explores the association between student's preferred learning style and their disciplines of the study. The investigation was delimited to the University of Agriculture, Faisalabad, Pakistan.

Students were selected from the University of Agriculture, Faisalabad through convenient sampling technique. 25 male and 25 female students each were taken from Department of Business Management Sciences (MBA), Rural Sociology, Agricultural Economics and from Department of Marketing and Agri business. A total of 200 students selected from four departments.

For measuring the learning style preference of students a "Learning style Inventory based on David Kolb model" was adopted. Each LSI-item consists of two opposed proclamations (comparable with a semantic differential), out of which the respondent should make a choice. It consisted of twelve items.

The inventory was distributed to the 20 students for the purpose of pilot testing. Inventory was modified after pilot testing. In this study data was collected through personal visit to the target sample institution.

Data was collected from 100 male and 100 female students. After the collection of data a score sheet was prepared. Data was further analyzed and interpreted to draw conclusions and make necessary recommendations. Mean was used as statistical technique to analyze the data.

Results

- ⇒ Primary Learning Mode/Style: as students give first preference
- ⇒ Secondary Learning Mode/Style: as students give second preference

Table 1: Mean score of Learning Cycle Preferences (Learning Modes).

Learning Cycle Preferences	Male		Female	
	No. of students	Mean	No. of students	Mean
Concrete Experiences (Feeling)	19	6.90	17	5.85
Reflective Observation (Watching)	26	8.83	23	7.05
Abstract Conceptualization (Think)	35	9.54	34	9.45
Active experimentation (Doing)	20	7.50	26	8.86

Table 1 indicates that both male and female students preferred abstract conceptualization (thinking) as primary learning mode. Male secondary preferred reflective observation (Watching) and female active experimentation (Doing) as secondary learning mode. While both the male and female students less preferred concrete experiences (Feeling).

Table 2: Gender wise mean scores of learning styles.

Learning styles	Male		Female	
	No. of students	Mean	No. of students	Mean
Converging	30	8.75	38	8.65
Diverging	15	8.21	18	8.47
Assimilator	32	8.83	27	8.56
Accommodator	23	8.33	17	8.38

Table 2 indicates that male students preferred assimilator (watching and thinking – AC/RO) as primary learning style and convergent (doing and thinking - AC/AE) as secondary learning style. Female students preferred convergent (doing and thinking - AC/AE) as primary and assimilator as secondary learning style. While male less preferred to divergent (feeling and watching - CE/RO) and female to accommodator (doing and feeling - CE/AE) learning style.

These results are also supported by the study conducted by Cezair, et al (2003) that male students, however, overwhelmingly favor the assimilating learning style and female students have the least preference for the Accommodative learning style.

Table 3: Gender wise mean score of learning styles of students of Sociology, Economics, MBA and Agri Business

Dept.	Converging				Diverging				Assimilator				Accommodator			
	Male		Female		Male		Female		Male		Female		Male		Female	
	N*	M**	N	M	N	M	N	M	N	M	N	M	N	M	N	M
Soci-Ology	5	8.25	8	8.85	4	8.6	6	8.4	7	8.51	8	8.5	9	8.78	3	8.00
Econ Omics	7	8.71	10	8.75	4	8.5	4	8.33	8	8.87	6	8.6	6	8.25	5	8.15
MBA	7	8.71	9	8.87	5	8.4	6	8.5	10	8.8	6	8.6	3	8.33	4	8.00
Marketing & Agri	11	8.81	9	9.11	2	8.0	5	8.4	7	8.71	7	8.85	5	8.5	4	8.75

*N: Number

**M: Mean

Table 3 indicates that in Sociology male students preferred accommodator (doing and feeling - CE/AE) as primary and assimilator (watching and thinking - AC/RO) as secondary learning style. Female students preferred convergent (Doing and Thinking- AC/AE) as primary and assimilator (watching and thinking - AC/RO) as secondary learning style. While male less preferred diverging (feeling and watching - CE/RO) and female to accommodator (doing and feeling - CE/AE) learning style.

Male students of Economics preferred assimilator (watching and thinking - AC/RO) as primary and convergent (doing and thinking - AC/AE) as secondary learning style. Female students of Economics preferred convergent (doing and thinking - AC/AE) as primary and assimilator (watching and thinking - AC/RO) as secondary learning style while both male and female students less preferred divergent (feeling and watching - CE/RO) learning style. It shows that in Economics males prefer assimilator-learning style while females prefer converging learning style.

Male students of MBA preferred assimilator (watching and thinking - AC/RO) as primary and convergent (doing and thinking - AC/AE) as secondary learning style. Female students of MBA preferred convergent (doing and thinking - AC/AE) as primary and assimilator (watching and thinking - AC/RO) as secondary learning style. Accommodator (doing and feeling - CE/AE) learning style was less preferred by MBA students. It shows that the male students of MBA preferred assimilator-learning style and female preferred converging learning style.

In Marketing and Agri Business both male and female students preferred convergent (doing and thinking - AC/AE) as primary and assimilator (watching and thinking - AC/RO) as secondary learning style. While both male and female students less preferred divergent (feeling and watching - CE/RO) learning style. It shows both the male and female students of Marketing and Agri Business preferred converging learning style.

Table 4: Discipline of Study wise mean score of Learning styles (MBA, Sociology, Economics and Marketing and Agri business).

Learning Styles	Sociology		MBA		Economics		Marketing and Agri business	
	No.	Mean	No.	Mean	No.	Mean	No.	Mean
Converging	13	8.75	16	8.8	17	8.8	20	9.1
Diverging	10	8.33	11	8.44	8	8.28	7	8.42
Assimilator	15	8.84	16	8.8	14	8.5	14	8.78
Accommodator	12	8.63	7	8.1	11	8.5	9	7.66

Table 4 Indicates that students of sociology preferred assimilating (watching and thinking - AC/RO) as primary learning style and converging (doing and thinking - AC/RO) as secondary learning style, whereas the students of MBA preferred equal to convergent (doing and thinking - AC/AE) and assimilating (watching and thinking - AC/RO) learning styles. Students of sociology less preferred Divergent (feeling & watching) and students of MBA less preferred to accommodator (doing and feeling - CE/AE) learning style. Economics and Marketing and Agri business preferred convergent (doing and thinking - AC/AE) as primary learning style and assimilating (watching and watching - CE/RO) learning style in both Economics and Marketing and Agri business.

These results were also supported by Adel, Lari and Louis (2003) that most of students prefer Assimilator and Convergent learning styles.

Conclusions

Following conclusions are drawn from the findings:

1. Majority of the students preferred Abstract Conceptualization (Thinking) as primary learning style mode of learning cycle. The male student's secondary preference was for Reflective Observation (watching) and females preferred Active Experimentation (Doing) and both preferred less the Concrete Experience.
2. Most University students preferred convergent as primary leaning style, assimilative as secondary learning style and preferred less the divergent learning style.
3. According to the division of gender, the male students preferred assimilative and less preferred divergent learning style and female students preferred

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convergent learning style and less preferred accommodative learning style, which is also supported by the study of Cezair, et al.

4. The female students of departments of Sociology, economics and MBA preferred convergent learning style and male preferred assimilative learning style. The male and female students of marketing and Agri Business preferred converging learning style which is supported by the study of Adel, Lari and Louis.
5. The students of the departments of Economics, MBA and Agri business preferred Converging as primary learning style and assimilative as secondary, while the students of sociology preferred assimilative as primary learning style and converging as secondary. The students of sociology, Economics and Agri business less preferred divergent and MBA less preferred accommodator-learning style.

Recommendations

On the bases of conclusions following recommendations are drawn:

1. Teachers may apply different AV-aids and teaching method for effective teaching.
2. The convergent learner prefers to do things themselves. Teachers may interact with students and involve them; it is more effective to do practically on innovative ideas
3. The best ways to teach the assimilator is to start from abstract concepts and then present details of analytical models. Give them reading material and thought provoking ideas before lecture.
4. Learning styles also provide guidelines to teachers, to present content in an established way suitable to the multiplicity of the classroom. Teachers must also revolutionize instructions.
5. Academic institutions may arrange awareness among the faculty about manifold learning styles within different disciplines.
6. Create awareness among students about their learning styles than they may exhibit great achievement and personal satisfaction.

References

Adel, M. Lari, H., and Louis.(2003). *An Investigation into the Preferred Learning Styles of Accounting, Management, Marketing, and General Business Majors*. Teaching & Learning, Fall 2003, Volume 18, Number 1.

Ahmad, M. (2006). *Comprehensive Dictionary of Education*. Iimi Kitab Khana, Lahore Pakistan.

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- Bread, C & John P Wilson. (2002) *“The Power of Experiential Learning” A Handbook for Trainers and Educators*. British Library. USA,UK.
- Cezair,j. et al.(2003)., *Exploring the Impact Gender May Have on Students ‘ Learning Styles and Course Achievement in Selected Accounting Courses*. Fayetteville State University.
- Dunn & Shirley A. Griggs (1993) *Practical Approaches to Using Learning Style in Higher Education*.
- Fielding, M. (1994). Valuing difference in teachers and learners: building on Kolb's learning styles to develop a language of teaching and learning. *The Curriculum Journal* 5(3):393-417.
- Fry, Steve Ketteridge and Marshall. (1999)A Hand Book for *“Teaching & Learning in*
- Holman, D., K. Pavlica and R. Thorpe. (1997. *Rethinking Kolb's theory of experiential learning in management education: the construction of social constructionism and activity theory*. *Management Learning* 28(2):135-148.
- James,T. and Schultz, M. *the effect an individuals’ learning style has on grades in traditional and distance learning*. Schultz Embry-Riddle Aeronautical University and The University of West Florida.
- Kolb, D.A. (1984). *Experiential learning: experience as the source of learning and development*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Lankard, B. (1998) *“Practice Application Brief, Learning Styles and Vocational Education Practice*.U.S Department of Education.
- Merriam, S.B, & Caffarella, R.S.(1991) *Learning In Adulthood*. San Francisco, CA: Jossy-Bass.
- Siriopoulos,C and Pomonis,A. (March, 2007). *A Comparative Analysis of Economics Graduates' Learning Attitudes: Implications for Teaching*. Greek, University of Patras.
- Steven,R. Terrell and Laurie Dringus (1999-2000).*An Investigation of the Effect of Learning Style on Student Success in an Online Learning Environment*.

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