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Relationship between Learning Style Preferences, Personality Profiles and Achievement Motivation of University Students: A Gender Base Analysis

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Abstract

This study investigated the relationship between learning styles, personality profiles and achievement motivation of university students. Students who were studying in social sciences faculty situated in Islamabad were the population of the study. Through stratified random sampling technique, 100 students were chosen. Learning styles, personality types and achievement motivation were assessed by means of the Felder-Soloman Index of Learning Styles (FSILS), Myers-Briggs Type Indicator (MBTI) and General Achievement Goal Orientation Scale (GAGOS) by McInerney respectively. Frequencies and correlations technique were used to analyse the data. The findings of the study showed that mostly students have Active, Sensing, Visual and global learning style and possess personality preference of extroversion, sensing, thinking, perceiving. Extrovert scored higher in achievement motivation than introvert. Thinking types scored higher in achievement motivation than feeling types. Visual learning style and achievement motivation and extroverted personality type and active learning style were also found positively correlated. It is recommended that this study will be helpful for teachers to better understanding and improving the teaching as well as learning process.

Keywords: *learning styles, personality types, achievement motivation*

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Introduction

Learning styles are explained as a set of traits, characters and behaviours that describes the way we learn. It is determined like a dependable manner of working which demonstrates the root elements of learning attitude (Keefe, 1987). It is not only the characteristics that indicate students' learning and likes learning, but also the teaching strategies that guide the learning, background and content of learning. Previous research reports that students can improve their academic performance if they can consider appropriate learning methods when progressing any learning or teaching development (Graf, Liu, & Kinshuk, 2010). According to Sternberg (1997) constructing knowledge of learning desires and styles helps the teachers become more responsive in their teaching.

Personality is a pattern of stability and a person's characteristics that affect his or her goals to achieve behavior. Personality may described as "the complexity of distinguishing the characteristics of an individual or country or group; in particular: the sum of individual behavior and emotional characteristics." It's a fact that people are different. For better understand how to interact and interact with them, it's important to believe what kind of personality you are concerning with. Understanding the individuality and learning style of an individual in an organization can create a productive and enjoyable workplace. Personality is a unique pattern of thought, emotion and behavior. Personality is a habit pattern and behavioral trait indicated by physical movements and cognitive views. (Carter, Izumo & Kravits 2001).

MBTI has a strong and stable theoretical foundation and has been widely used for reliability and effectiveness in mature person so MBTI was selected for research (Riding & Rayner, 1998; DiTiberio, 1996). This indicator is also established in academic and business environments. It's easy to use, manage and individual's rating and it is a self-describing tool constructed to judge the personality types of human beings (Myers & McCaulley, 1985; Abrahamian, 2003).

Motivation may be described as the dynamic strength behind the behavior of individual. The collision of personal requirements and ambitions has a major impact on behavior. It is based on emotions as well as goals associated with achievement. Thus achievement motivation may be explained as the desires to succeed or achieve perfection. Persons will accommodated their desires in different ways and are compelled by internal and external reasons.

Some researchers have studied how these types of motivational dimensions relate to personality. As Musson, Sandal, and Helmreich (2004) established that extroversion of experience, sense of responsibility and acceptance are absolutely connected to mastery. In addition, work adjustment (similar to the professional ethics of Cassidy and Lynn) was found to be positively related to extroversion and responsibility. Musson et al. (2004) also found that both openness and acceptability were negatively correlated with competitiveness.

Objectives

1. To explore learning style preferences among male and female university students.
2. To identify personality profiles among male and female university students.
3. To assess the level of achievement motivation between male and female university students.
4. To assess the association among learning styles, personality profiles and achievement motivation among university students.

Research Questions

- Which learning style preferences is dominant among male and female university students?
- What are personality profiles of male and female university students?
- What is the level of achievement motivation of male and female university students?
- What is the relationship between learning style preferences, personality profiles and achievement motivation among university students?

Literature Review

Learning Styles

People have different ways of learning, reflected in different academic strengths, flaws, skills and attentions. Learning style is a general method used by students to acquire new languages or to learn any other discipline like analytical or global and visual or auditory methods. These styles are the arrays that give common

path to learning behaviour (Cornett, 1983). According to Dunn & Griggs, 1988 the methodological book argues that the biology and development of the learning style imposes a series of features that make the same teaching method wonderful for some people and terrible for others.

The promotion of learning styles has been the spotlight of research from many decades. Although it can be simply described as "the way people understand and remember information" (Brown 1998). The definition changes tend to reflect the views of different learning style lists, which are intended to assess learning preferences using a variety of methods. These include assessments based on perceived, emotional and cognitive capacity (James & Gardner 1995); assessment of physical or sensory preferences (Gentry,1990); Cerebral hemisphere theory (Asselin & Mooney 1996).

The learning style of the Felder model emphases on the essential learning styles of engineering and science education and even the model-related psychometric tool learning style index has not been entirely confirmed and is also very popular among engineering educators. In short, ILS has five measurements: processing (active/reflective), perception (perception/intuition), input (visual/language), understanding (sequence/global), and organization (induction/deduction). Felder indorses the use of inductive instruction methods while usual university teaching methods are deductive that starting with the basics and then entering the application. Therefore, latest dimension is detached

from the ILS and not to require incentives for enduring to use traditional deductive instructions. This model brings together a set of learner profiles of learning preferences and provides insights into how to modify the teaching strategies to expand their appeal to a larger population of student. To upsurge encouragement for pupils through different personal inclinations, Felder encourages a variety of approaches to engineering and escience education as well as combines a positive, observed, student-centred style to learning. For a long time, people have always advocated that this method is an effective engineering education learning environment.

Personality Types

Since the 1960s, when Isabel Briggs Myers introduced her MBTI® Personality Type 1 assessment, career counsellors have been interested in using personality types to guide clients' accomplishment. To explore different types of career development trends, lot of studies have been organized; the study examined the prevalence of 16 types in various occupations and found that people of different personality types chose to have significant differences in their careers. Career consultants now have extensive information to guide clients in choosing a career that is satisfactory.

Perhaps the most famous tool for evaluating learning styles is the Myers-Briggs Type Indicator (MBTI). The alliance between 8 universities and psych type application centres 5, 6 and Rosati studied the type effects in engineering education. In all these studies, introversion, intuition, thinkers and judges generally

performed Better than their extroversion, perception, feeling and perception of the opponent. (These terms will soon be interpreted as readers who may not be familiar with MBTI.) Rosati breaks down his population based on the general level of gender and academic level, and points out that the strongest performance and retention among academically weak male students is observed. Type difference. .

According to Jung's psychoanalytic theory, Myers concluded that there are four dichotomies that make people different from each other and call them "type preferences." The four dichotomy and its brief description are as follows:

- **Extraversion or Introversion**

Indicate whether people are more willing to obtain personal energy from people and activities in the outside world, or from the inner world of thought and thought. For example, extroverts prefer to be among a large group of people, and introverts tend to have fun in quieter activities.

- **Perception or intuition**

Describe how people accept information, they are concerned with what is actual and real (fact-based) or more inclined to explain or apply meaning to what they see. For example, people who like to be perceived are down-to-earth and rely more on past experiences, while those who like intuition are considered to be idealists and more dependent on the future.

- **Thinking or feeling**

It shows that people prefer to make decisions, whether based on logical thinking or their influence on themselves and others. For example, people who like to think too often dominate a useful profession such as a counsellor, who pays close attention to the needs of others. In addition, those who like to think may seek clear facts when resolving disputes.

- **Judgment or perception**

Describe how you manage your life and how to deal with the outside world, whether it is orderly or spontaneous. For example, people who like to judge like to handle everything in a sequential and planned manner. Conversely, people who like perception are more unplanned and spontaneous in their lifestyles, including making decisions.

Achievement Motivation

Achievement motivation has been explained as a refers for greatest in act as imitated in contest with the requirements set by others or oneself, unique accomplishment or long term involvement (McClelland et al., 1953). The theory of achievement motivation is developed by Atkinson and his associates. The concept of achievement motivation (N-Ach) was subsequently popularised by David McClelland (1953).

According to Atkinson and Feather (1966), individuals derive energy from two motivation sources to reach their goals: extrinsic motivators and intrinsic motivators. Intrinsic motivation concerns to desire of individual to complete/fulfill a task because of internal motivators such as personal goals, while extrinsic

motivation refers to individuals' desires to complete/fulfill a task because of external motivators such as incentives or rewards. Atkinson's motivation sources provided a framework for researchers who wanted to focus on variables associated with intrinsic and extrinsic motivators (Dumitrescu, Kawamura, Dogaru, & Dogaru, 2010; Judge, Bono, Erez, & Locke, 2005).

Previous researchers (Ahmad & Rana, 2012; Aronoff & Litwin, 1971; Arora, 2015; Desa et al., 2012; Dumitrescu et al., 2010; Yang, 2000) have demonstrated achievement motivation to be a construct researched in different fields (i.e. psychology, business, education), different cultures (i.e. individualistic, collectivistic) and with different groups (i.e. college students, high school students). In a recent study, Li et al. (2015) conducted a quantitative study with 493 Chinese university students. Using the Achievement Motivation Scale developed by Dahme, Jungnickel, and Rathje (1993; as cited in Li et al., 2015), the researchers found achievement motivation, perfectionism and attributional style was positively correlated with subjective well-being. The authors stated that students who contribute the aspects due to internal causes would display a greater sensibility of subjective well-being. However, Li et al. (2015) did not report both effect size and power in their study, making it difficult to discuss the generalizability of the results.

Methodology

Population of this study comprised of students in social sciences faculty from public sector universities in Islamabad.

Stratified random sampling technique was used for the selection of sample from the population. 100 students were taken as a sample i.e 30 were male students and 70 were female students of public sector universities of Islamabad. Learning styles was assessed by using Felder-Soloman Index of Learning Styles (FSILS), personality types were evaluated by Myers-Briggs Type Indicator (MBTI) and General Achievement Goal Orientation Scale (GAGOS) was used by McInerney for the evaluation of achievement motivation. Descriptive statistics mean, standard deviation, frequency and correlations technique were used to analyse the information.

Results

Table 1
Learning Styles Preferences among Students

Learning Styles	Male		Female	
	F	%	f	%
Active	28	93%	67	96%
Sensing	19	63%	59	84%
Visual	24	80%	61	87%
Global	20	67%	64	91%

Table 1 reveals that scores on all learning styles contributed higher in female students than male students. It also shows that active learning style is more dominant in males and females.

Table 2
Personality Profiles on the MBTI

Personality Type	Male		Female	
	F	Percentages	F	Percentages
Extraversion	18	60%	40	57%
Introversion	12	40%	30	43%
Sensing	25	83%	15	21%
Intuition	05	17%	55	79%
Thinking	20	67%	23	32%
Feeling	10	33%	47	68%
Judging	07	23%	38	54%
Perception	23	77%	32	46%

Table 2 displays the frequencies for personality types of male and female students which shows that females were discovered less extraversion, thinking, perceiver and sensing than males' student whereas males were found less introversion, intuition, feeling and judging than females' student.

Table 3
Achievement Motivation of Students

Gender	N	M	SD
Male	30	34	8.9
Female	70	38	8.0

Table 3 shows the mean and standard deviation scores of achievement motivation. The result revealed that male students have lower achievement motivation as compared to female university students.

Table 4
Inter correlation between Learning Styles, Personality Profiles and Achievement Motivation

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
Active	-												
Sensing	.47*	-											
Visual	.40*	.5*	-										
Global	.38*	.48	.2*	-									
Extraversion	.42*	.37	.36	.32	-								
Introversion	.38	.5*	.6*	.21	.3	-							
Sensing	.26*	.5*	.37	.33	.22	.32	-						
Intuition	.54	.65	.29	.43	.27	.36	.28	-					
Thinking	.32*	.6*	.36	.3	.36	.22	.3	.2	-				
Feeling	.41	.5*	0.3	0.3	0.3	.2*	.4	.2	.2	-			
Judging	.52*	.76	.5*	.25	.3*	.43	0.4	.3*	.3	.3*	-		
Perceptio	.35*	.64	.29	.34	.3*	0.3	.32	.45	.4	.12	.4*	-	
Ach Motivati	.39*	.6*	0.3	.4*	.3	.37	.2*	.43	.3	.37	.44	.39	-

Table 4 reveals that a positive relationship among all subscales of learning styles, personality profiles and achievement motivation.

Discussion

According to the first research question, outcome of the research study indicated that scores of female university students on active, sensing, visual and global are higher than males. In their study Kharb, et al. (2013) observed that the male high school students had preferred multimodal learning styles, whereas female school students preferred unimodal learning styles.

According to the second research question, result exposed that as compared to males, females were less extraversion, sensing,

perceiver and thinker whereas males were found less introversion, intuition, feeling and judging than females' counterpart. Zamir, et al. (2012) showed in their research study that males were higher extroverted, more sensing and thinking than female academic managers.

According to third research question, study shown that male students have less achievement motivation than the female university students. Conversely, Leondari and Gonida (2007) discovered that there is no any gender change in the situation of goal orientation.

According to last research question, result of study revealed a positive connection among personality profiles, learning style preferences and achievement motivation. Furnham et al., (1999) observed a strong association between learning styles and personality types.

Conclusions

- Female university students were less extraversion, sensing, thinking and perceiver than males' correspondents.
- Males were found less introversion, intuition, feeling and judging than females' counterpart.
- Scores of female students on learning styles contributed to higher than males and more dominating style is active learning style in male and female.
- Male students have less achievement motivation as related to the female students.

- Visual learning style and achievement motivation and extroverted personality type and active learning style were also found positively correlated.

Recommendations

- The results of the this research study will be beneficial for better understanding and improving teaching process for teachers.
- Educators may understand students learning styles so that they can encourage student enthusiasm and grow students energetically involved in the learning procedure.
- Teachers may give students various learning chances according to different styles of learning to encourage student achievement and ensure active learning.
- Instructors may provide learning opportunities for students to use a variety of learning strategies in a way that ensures students understand, assimilate and maintain.
- Pupils may observe their own learning motivation, control sentiments and use motivational and learning tactics to recognize their learning style for active involvement in their learning.
- More studies may be directed to increase information about helpful practices in process of teaching and learning and better understanding.
- Related studies, large groups of different groups and different statistical approaches and variables can give to the relevant literature.

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