

Cognitive styles, learning styles and motivational beliefs among students of Payame Noor University and Shiraz University

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Abstract: This paper investigates the differences between cognitive styles, motivational strategies and learning styles between the students of Payame Noor University and Shiraz University. Data gathered from a sample of 600 students extracted from Krejcie and Morgan's Table (1970). Data analysis performed using ANOVA, MANOVA and independent t-test. Result showed that there is a significant difference between learning styles of the students of two universities. The cognitive styles and motivational strategies also were significant differently as discussed in the text of the article.

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Introduction:

In the current age that is the age of technology, the information plays the important roles. On the other hand, the advancement in this era will necessitate advancement of education and training and school learning is perceived as the final goal. In the era that education is the external factor and learners are internal factors, the advancement needs the prioritizing the advancement factors. From the other hand, all of us believe and aware that the individuals learn some learning styles based on in which environment they grow (Seif, 2001).

The mission of motivational educational strategies is to know that how learners learn and for what the learners need self-esteem and self efficacy. The lack of recognition from cognitive styles of learners can lead to the failure in educational planning in macro-level.

Considering above issues, the current study aimed at identifying the relationships between cognitive styles and motivational strategies in two Higher Education Universities.

Hypotheses and research questions:

- 1- There is a significant difference between learning styles of the students of Payame Noor University with other Universities
- 2- There is a significant difference between cognitive styles of the students of Payame Noor University with other Universities
- 3- There is a significant difference between motivational strategies of the students of Payame Noor University with other Universities

Definitions:

-Cognitive styles

Conceptual definition:

- Wool folk (1995) Cognitive style as "different ways of receiving and organizing information is defined."

- Relatively stable aspects of the general progress of learning that can affect learning (Raydyng and Weiner, 1998).
 - Lashyngr the same definition as "a method through which they can organize information," insists (quoted Rezaie, 1378).

-The learning strategy

Conceptual definition:

Learning strategies to a variety of voluntary actions and consciously refers to the learners to achieve learning goals to be adopted (Albam et al, 1993)

Operational definition:

Grades in which students answer questions in the questionnaire the MSLQ learning strategies to acquire.

-Cognitive strategies (low level):

Conceptual definition:

Cognitive strategies that people can choose to do a task (Saif, 1380).

Operational definition:

Grades in which students answer questions in the questionnaire component of cognitive strategies to gain MSLQ.

Methodology:**Sample size and sampling:**

The study sample included 600 students are on the table Krejcie and Morgan (1970) has been determined considering the total population.

Measurement tools:

A - Motivational Strategies Questionnaire (47 questions)

B - Kolb's Learning Styles Questionnaire (12 questions)

Validity and reliability of learning styles:

This tool in numerous investigations into by Yar (1378), Rahman (1379), Karami (1382) and equality Azar (1381) has been used and considered its validity has been confirmed by experts and university professors.

Data Analysis:

Independent t-test, multi stages regression, ANOVA (one way and two way) has been employed.

Hypothesis 1, There is a significant difference between cognitive styles of the students of Payame Noor University with other Universities

Table 1- Chi² test for learning styles of students of PNU and Shiraz University

As it can be seen in the above table, due to the fact that sig is lower than maximum allowed error (5%), it can be concluded that there is a significant difference between the cognitive styles of the students according to their universities.

Hypothesis 2, There is a significant difference between motivational strategies of the students of Payame Noor University with other Universities

Table2- T test for independent groups to examine differences between students of Shiraz University and PNU in motivational strategies

As it can be seen in the above table, with the proposition that the variances aren't equal, due to the fact that sig is lower than maximum allowed error (5%), the proposition will be confirmed. This situation is correct both for motivational beliefs and self-regulated strategies.

Hypothesis 3, There is a significant difference between cognitive styles of the students of Payame Noor University with other Universities

Table3- The results of two way variance for the investigation of cognitive styles and motivational beliefs between students of PNU and Shiraz University

Table 1- Chi² test for learning styles of students of PNU and Shiraz University

Chi ²	df	Sig.	Kramer Coefficient	N
521	3	0.001	0.225	521

Table2- T test for independent groups to examine differences between students of Shiraz University and PNU in motivational strategies

	propositions	F	Sig.	t	df	sig
Motivational Beliefs	If variances equal	8.713	0.03	4.179	532	0.00
	If variances not equal			4.378		
Self-regulated strategies	If variances equal	2.288	0.23	3.881	534	0.00
	If variances not equal			4.028		

Table3- The results of two way variance for the investigation of cognitive styles and motivational beliefs between students of PNU and Shiraz University

Resources	Some of squares	df	Mean of squares	f	sig
Accuracy of model	449.81	7	641.68	6.155	0.00
Cognitive style	1931.43	3	643.81	6.175	0.00
Type of university	2436.93	1	2436.93	23.375	0.00
The interactive impact of cognitive style and university type	288.920	3	96.307	0.924	0.429
error	54003.67		104.254		
total	346749				

Conclusions:

1- Hypothesis 1, There is a significant difference between cognitive styles of the students of Payame Noor University with other Universities. It can be found that the most of the students of Payame Noor University have used the attractive style and the students of Shiraz University have used divergent styles. These differences may be from the structure of the universities or academic environment of them.

Hypothesis 2, there is a significant difference between motivational strategies of the students of Payame Noor University with other Universities.

It can be seen in the table 2 that the students of Payame Noor University have gained greater scores on motivational beliefs and self-regulated strategies. This issue may be resulted from the student centralization nature of Payame Noor University that is matched to distance education and its philosophy.

Hypothesis 3, there is a significant difference between cognitive styles of the students of Payame Noor University with other Universities.

It showed that there is a significant difference between cognitive styles in motivational beliefs of the students but, about the interactive impact of

cognitive styles and university type, there were no significant difference. This shows that university type has moderated the impact and it has a great impact in this regard.

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