

## The Relationship Between Thinking Style with Academic Achievement of Students Regarding the Mediator Role of Emotional Intelligence in Aq Qala City Schools

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**Abstract:** The aim of this research was to investigate the relationship between thinking style with academic achievement of students regarding the role of mediator of emotional intelligence Aq Qala city schools. This survey in terms of purpose is applied research and the method of data collection is descriptive and correlation that has been done in 2016. The methodology is field research and the data collection tool was learning styles questionnaire of Sternberg-Wagner and emotional intelligence. The target population sample of 377 students was considered. For factor analysis have been used software and for assessing and analyzing hypotheses have been exploited structural equation modeling using Software Spss. In this research, nine hypothesis was discussed and investigated Lisrel 8.8. The results of the research showed that all hypotheses are confirmed and also thinking styles being teachable. The students with their thinking style in various fields with the optimal use of this style of thinking and even a combination of these styles have won most of their abilities and makes their achievement.

**Key words:** Thinking style, academic achievement, emotional intelligence, students, schools of Aq Qala city

### INTRODUCTION

Thinking is one of the most important issues that special attention has been paid to education. Today, development, education and evaluation of thinking is one of the main functions of education. There are several factors that differentiate among learners. In recent years which factors more than any other factor has attracted the psychologists training and educational experts were diversity of learning styles and methods of thinking and learning strategies. This difference mainly has been raised in how to deal learner with different learning topics and the way of learning, maintenance and use of those knowledge.

Robert Sternberg argues; a thinking style is not ability, but is refer to how we use the abilities. Persons may have similar capabilities but have different thinking styles (Seif, 2008). In society, often we made a mistake between styles of thinking and abilities. As a result, individual differences due to the thinking styles mistakenly we refer to the abilities.

Such disharmony in school or working condition is more serious. Students who seem slow-witted at school often is because they follow a style that is not

coordinated with their teachers thinking style. Steinberg (1997) argues that different societies have different thinking styles associated with academic achievement. One indication of providing good education in the academic achievement are individuals. The academic achievement has criteria and standards that often associated with increasing average scores of students.

Academic achievement means that fulfilled the expected level of education and education organization closer to the preset goals. Academic achievement means that increase learning, leads to increase the level of scores and student's acceptance in courses and grade. Students in taught lessons have different abilities, some of them have learning potential and others lack of the necessary talent for learning. For example, among students with similar conditions for education lesson, some have good scores and some never experienced academic achievement. If we consider the same age, motivation and other condition of these students, what is the reason for these differences?

According to Golman (2004), about 8% of the reason of the success can be attributed to emotional intelligence. Goleman defines emotional intelligence: "intelligence

which includes the following functions: stimulate your motivation, persistence in the face of failure, controlling the instincts and delayed sense of satisfaction, regulation of individual cases and preventing the pain and discomfort barricade abilities such as thinking, insisting and hope. In our education system there is also the problem that its emphasis purely on academic ability and emotional intelligence as a set of attributes that are extremely important are ignored in the fate of individuals because the capabilities and competencies of social and emotional factors are decisive in influencing academic success (Austin *et al.*, 2005). Samari and Tahmaseby in research on emotional intelligence and academic achievement have reached the conclusion that general intelligence only 50% explains the academic achievement (Samari and Tahmasebi, 2007). Therefore, understanding the thinking styles has significance impact of the success and progress of individual. However, as mentioned above that the concerns of education in several countries and with regard to the promotion and strengthening emotional intelligence such concern seems quite logical. This research can be effective on how to improve teaching and student achievement. The main question of this research: is a there significant relationship between the thinking style and academic achievement of students regarding the mediated role of emotional intelligence in Aq Qala city schools?

Zhang and Sternberg in their framework of “Self-management mental”, distinguished 13 styles in five dimensions (functions, shapes, surfaces, areas and trends) from each other. He has named different ways of processing information as “thinking style”. This style is referred to this matter that “person like to do something”. The proposed model in this research is derived from the “actions” with three components: legislative, executive and judicial. So, the researcher in his model was

considered the relationships between thinking style and academic achievement once directly and once indirectly through the mediator emotional intelligence of students. That is presented in Fig. 1.

**Hypotheses:**

- There is a significant relationship between the legislative elements of thinking style with student achievement
- There is a significant relationship between the executive elements of thinking style with student achievement
- There is a significant relationship between the judicial elements of thinking style with student achievement
- There is a significant relationship between the legislative elements of thinking style with the emotional intelligence of students
- There is a significant relationship between the executive elements of thinking style with the emotional intelligence of students
- There is a significant relationship between the judicial elements of thinking style with the emotional intelligence of students
- There is a significant relationship between the legislative elements of thinking style with academic achievement of students with regard to the mediating role of emotional intelligence
- There is a significant relationship between the executive elements of thinking style with academic achievement of students with regard to the mediating role of emotional intelligence
- There is a significant relationship between the judicial elements of thinking style with academic achievement of students with regard to the mediating role of emotional intelligence

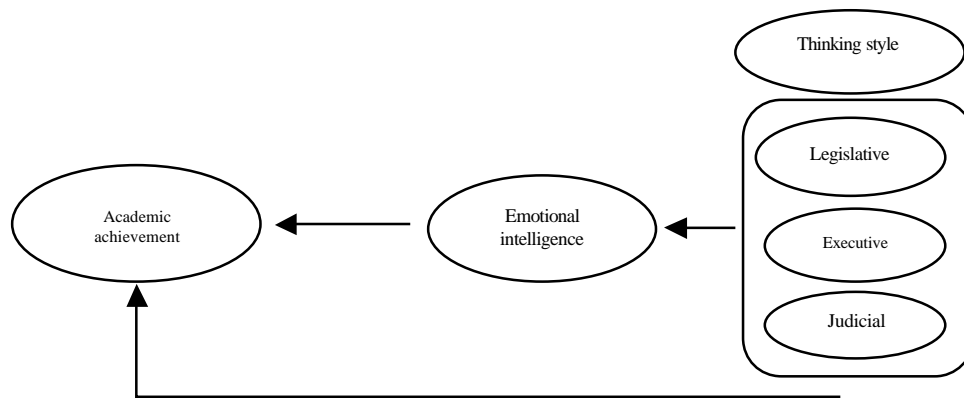


Fig. 1: Theoretical framework

Similar studies has been done such as this research that is the following. Ali Akbar Samari and Fahime Tahmasebi in a research examines the relationship between emotional intelligence and academic achievement in students who studying clinical psychology at the Azad University of Kashmar. The results of this research showed that there is a significant relationship between the total score of emotional intelligence and its components with academic achievement. There is also a relationship between age and emotional intelligence. The relationship between emotional intelligence and gender, the results showed that between girls and boys, there is no significant difference in the overall score of emotional intelligence but there was a significant difference in its two components.

Ashoori (2014) in a research to examine the relationship between self-efficacy, critical thinking, thinking styles and emotional intelligence with academic achievement in nursing students. The results showed that effectiveness, critical thinking, administrative thinking and emotional intelligence had significant positive correlation with academic achievement. In a model predictive efficacy, administrative thinking and emotional intelligence could predict about 76 % of academic achievement. Self-efficacy was better predictor than the other variables for academic achievement.

Also, Chao and Haung (2002) has done research on the students in the field of mathematics to evaluate the scale of their thinking styles that showed that female teachers and students more than their male counterparts prefer the style of idealism. In addition, female student's more than male students and male teachers than female teachers prefer to analytical style. And Zhang and Sternberg in research examined the relationship between thinking styles and academic achievement which according to the results showed that thinking styles have significant effects on academic achievement. The legislative, liberal and judicial style had the highest predictive power of academic achievement.

**MATERIALS AND METHODS**

The research method according to the nature of the subject is descriptive and correlational survey. Which

explores the relationship between variables. The population of this study includes all students of Aq Qala city's which are 20,000 students that are studying at the school from 2015-2016. According to Morgan and Krejcie table 377 samples is determined. The sampling method in this study is a two-stage cluster sampling. In this research has been used two standard questionnaires: learning styles questionnaire of Sternberg-Wagner (1991) and emotional intelligence (2001). And also to measure the academic achievement has been used of the results of the mean scores of students at the end of the school year of 2015-2016. For factor analysis have been used software and for assessing and analyzing hypotheses have been exploited structural equation modeling using software Spss. In this research, nine hypothesis was discussed and investigated Lisrel 8.8.

**RESULTS AND DISCUSSION**

**Data analysis:** In Table 1 is shown the results of descriptive statistics of thinking styles. According to the results of Table 1, means shows that, the mean of thinking styles, legislative, executive and judicial in female students is higher than male students. In general in the all of the students, executive thinking style has the lowest mean and judicial style has the highest (Table 2 and 3).

Table 1: Descriptive statistics of thinking styles sample

Variables/groups	No	Mean	SD	Max.	Min.
<b>Legislative style</b>					
Boy	210	4.93	0.96	6.75	2.12
Girl	167	5.22	0.75	8.88	3.62
Total	377	5.10	0.85	8.88	2.20
<b>Executive Style</b>					
Boy	210	5.11	0.99	7.00	2.25
Girl	167	5.24	0.72	6.75	3.50
Total	377	5.19	0.84	7.00	2.25
<b>Judicial style</b>					
Boy	210	5.06	0.92	7.01	2.50
Girl	167	5.09	0.74	6.50	2.50
Total	377	5.08	0.81	7.02	2.50

Table 2: The scores of students in the ultimate test

Gender	N number	Scores range	Mean (M)	SD
Boy	210	7-20	15.97	3.15
Girl	167	9-20	16.08	3.00
Total	377	7-20	16.02	3.08

Table 3: Direct and significant results and correlation coefficients of hypothesis model

Direction	Sign	Path coefficient	Significance	Result
Legislative thinking style,academic achievement	Emo, Leg	0.68	2.63	Accept
Executive thinking style, academic achievement	Emo, Adm	0.84	3.90	Accept
Judicial thinking style, academic achievement	Emo, Jud	0.78	3.50	Accept
Judicial thinking style,emotional intelligence	Aca, Leg	0.67	2.06	Accept
Executive thinking style, emotional intelligence	Aca, Adm	0.85	2.97	Accept
Judicial thinking style, emotional intelligence	Aca, Jud	0.50	3.92	Accept

Table 4: The relationship between the variables in the original model

Type of relationship	Direct relationship	Indirect relationship	Total relationship
Leg on Emo	0.68	-	0.68
Adm on Emo	0.84	-	0.84
Jud on Emo	0.78	-	0.78
Leg on Aca	0.67	$0.68 \times 0.89 = 0.60$	1.27
Adm on Aca	0.85	$0.84 \times 0.89 = 0.74$	1.59
Jud on Aca	0.50	$0.78 \times 0.89 = 0.69$	1.19

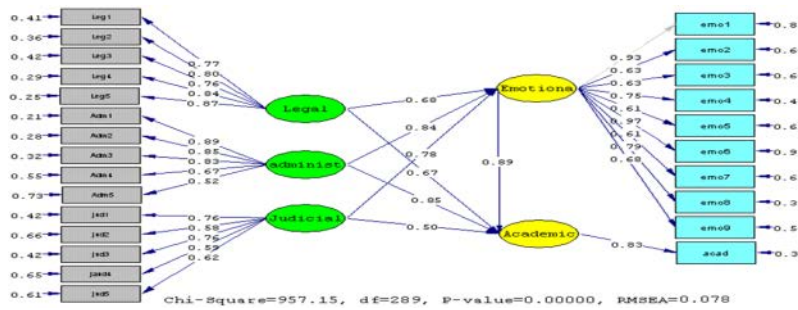


Fig. 2: The structural model of research in standard mode

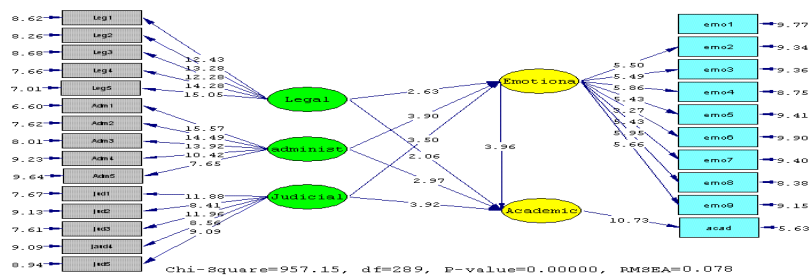


Fig. 3: Structural Model Research in significant level (t-value)

According to the mean scores it seems that female students with means of 16.08 than male students with 15.97 have relatively better performance (Fig. 2 and 3).

In Table 3 is a path coefficient and significant between variables. As can be seen, path coefficients for all relationship have been significance in 0.05 level ( $t > 1.96$  and  $t < -1.96$ ).

As well as direct and indirect relationship between the variables in the final model of research indicate that the direct and indirect effects on each variable on another variable that presented in Table 4.

### CONCLUSION

As indicated in the above tables, the path coefficient between all of the thinking style with emotional intelligence and academic achievement of students has been obtained greater than 0.50. T statistic for this relationship was obtained more than significance level of 1.96. Based on the above items it can be concluded that there is a significant relationship between thinking style and academic achievement of students with regard to the

mediating role of emotional intelligence. The results of this research is consistent with survey by Ashoori (2014).

With this description, to clarify the research hypotheses we can say that people with different legislative thinking styles are successful in homework that it requires creativity and freedom because such activities and assignments in schools is low, in addition, these people are legislating for themselves and obey their law and this makes students don't do their homework on time or as if the teacher asked them to do and finally this decrease the ultimate achievement. As well as those people with executive thinking style tend to follow the rules, procedures and structures that are available and moreover, these people to prefer pre-defined activities, so these things will increase academic achievement.

As Stenberg says; in schools and organizations for judicial thinking that includes evaluation, criticism and analysis of applications as legislative thinking has low value and appreciated and promote executive people but people have judicial thinking about unkindly, deposal, job suspension and etc. Therefore, a person with judicial thinking style is successful in tasks that need to analyze,

criticize and evaluate and because the assignments do not usually need to analyze and evaluate, so people with such thinking have lower academic achievement.

### **SUGGESTIONS**

It is suggested that; if educational authorities, legislative thinking styles and related to encourage creativity, innovation among students can increase self-worth and self-confidence. As a result, according to the thinking styles in local schools to provide specialized training to students, can make it possible to teachings interwoven with the ability can increase the creativity.

Therefore, it is suggested that instead of focusing on memorizing and tasks that their structure is previously determined, emphasis on things and situations that require more thought and analysis and evaluation and has grown students with power of thinking and creative decision in different situations and not growing as a person who has followed the existing structure and just has the ability to succeed in these structures.

It is suggested; according to Steinberg (1997) given that thinking styles are teachable, can be turned into styles that create active learning in students and facilitate their creativity and innovation and ultimately to advance their education and can teach to learners and teachers.

It is suggested; by holding legal thinking styles and emotional intelligence training courses for teachers and students can help effective interaction in a learning environment and can be reduced misunderstandings and provide conditions for those thinking styles such as legal education that the school has a positive relationship with creativity as well as design the education and training practices in schools in such a way that leading the students toward direction to understand their thinking styles and to develop it in an appropriate manner.

It is suggested; educational organizations to design training courses to become familiar with their thinking style and familiarize with thinking styles to align it with the pattern of their abilities for self-actualization and promotion of greater organization. Because by identifying students' thinking style and teaching, according to their style, can create a revolution in education.

It is suggested; given that the purpose of teaching is to cultivate people and providing situation for students have a good understanding of their emotions and manage them efficiently, therefore, school attention to judgment thinking and EQ is essential matter to enable students to become lifelong learners and to a large extent reduce their academic failure.

Teachers can teach and assess learners in ways that can provide complex and creative thinking and development situation of creative and complex forms of

thinking style for students that has not been pre-planned and organized tasks. Undoubtedly, if teachers encourage students to use creative and sophisticated dimensions of legislative thinking style, learners due to their high emotional intelligence will increase their sense of self-worth and self-esteem.

It is suggested to be provided conditions in schools that all of the thinking style, especially executive thinking style has growth opportunities and develop their thinking features. And using the proper combination of different styles in educational environments can benefit from the advantages and capabilities of different styles and considering the potential emotional intelligence that are in these students that with different thinking styles to deal with multiple dimensions of the issue and together can bring the best results.

It is suggested that instead of focusing on memorizing and tasks that their structure is pre-planned, emphasis on things and situations that require more thinking, analysis and evaluation and has grown students with power of thinking and creative decision in different situations and not growing up as a person who have followed the existing structure and have the ability to succeed in these structures. So, teachers and education authorities with a better understanding of emotional intelligence of each student trying to understand the factors affecting it to help the effectiveness of teaching and learning environments and attempt to personalize the learning process and student achievement.

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