

Relationship between Emotional Intelligence and Learning Styles of Students

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ABSTRACT

Present research has analyzed the relationship between students learning styles and their emotional intelligence. The research was descriptive of correlation type. Research population was consisted of all students of Islamic Azad University, Khorasgan Branch, in three groups of Bachelor's, Master's and PhD degrees. 320 were chosen by using random sampling method and the sample size formula. To collect data, two questionnaires; Kolb learning style and Bar-on have been used. Also content and face validity of questionnaires were confirmed by several psychology and educational sciences experts. The reliability of both questionnaires was estimated by using Cronbach's alpha coefficient (α) which equals to 0.91 in emotional intelligence and 0.97 in learning styles. Analysis of the data is done by using inferential statistics (including percentile, mean and standard deviation in descriptive and independent, Pearson correlation coefficient, one-way variance analysis and Tucky test). The result has shown that among 15 emotional intelligence components (emotional self-awareness, courage, self-esteem, self-actualization, independence, interpersonal relationships, liability, empathy, test of reality, problem solving, and flexibility, tolerance of psychological strains, impulse control, happiness and optimism) there are only relationships between interpersonal relationships, impulse control and learning style. And no relationships between other components of emotional intelligence and learning styles of divergent, convergent and assimilative were found.

KEYWORDS: Emotional intelligence, Learning styles, Students, University.

INTRODUCTION

Nowadays rapid and extensive developments in sciences and technology and emergence of modern perspectives on social, political, economic and cultural issues have brought essential changes in educational system and pedagogy methods. With the decline of behaviorist psychology and the advent of cognitive psychology, especially constructivist approach in learning, learners are considered as creators of their own learning rather than merely recipients of it.

Learners must process information while receiving them and links it to previous experiences, organize their learning and apply them in new situations. Successful adaptation to information age and science and technology explosion requires one's ability and sufficient skills to pursuing information and analyzing it. Recent research shows that for this purpose, it's not only intelligence and cognitive capabilities, but also emotional characteristics. Especially emotional intelligence and social skills are of utmost importance (Sharifi, 2008). Emotional intelligence term was first appeared in 1985, which means one's ability in emotional and affection self-monitoring, differentiating between them and employment of this information toward guiding ones thinking and actions.

Salovey and mayer (1990) ,two leading psychologists ,view Emotional intelligence as the ability to perceive accurately, appraise, and expressing emotion; the ability to access and/or generate feelings when they facilitate thoughts ; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth (Aghayar, 2008;p.36). Golman have looked at Emotional intelligence as emotional qualifications comprises of learnt abilities which are remarkable performance in work, classroom and everyday life are among its consequences (Sharifidaramadi, 2008, p.14).

Bar-on has used emotional quotient instead of Emotional intelligence and views emotional intelligence as an extensive set of traits such as self-awareness, self-actualization, independence, social responsibility, stress analyzing, and happiness feeling. Based on this matter, he describes emotional intelligence as a set of capacities, abilities and non-cognitive skills raising one's capabilities in successful approaching to situations and environmental strains (bar-on, 2000).

According to bar-on emotional intelligence comprises of 5 components as follows: (1) Intrapersonal components (characterizes one's ability in emotion awareness and control, comprising self-regard, emotional self-awareness, assertiveness, independence, and self-actualization), (2) Interpersonal components (characterizes

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individuals in adjustment with others and social skills, comprising empathy, social responsibility, and interpersonal relationships), (3) Stress management components (comprising stress tolerance and impulse control), (4) Adaptability components (comprising reality testing, flexibility, and problem solving), and (5) General Mood components (comprising optimism and happiness) (Aghababai, 2008).

Research shows that this kind of intelligence besides cognitive abilities can be put in the stage for many activities including environmental complete appraisal, empathic relationship ability, social skills acquisition and affective and relational grounds for different activities such as learning.

As an important fact, nowadays all of human developments are products of learning. Humans acquire most of their merits by learning. At the same time people's differences in learning in terms of cognitive and emotional characteristics and other personality characteristics considered a great question for all educational practitioners. Learning style is not only one of the effective factors in learning but also is a part of individual differences domain.

Bichler (1995) defines learning styles as individualistic approaches used by learners for informational processing in learning new ideas. Bozinelos (1996) defines learning styles as individual differences at influencing learning in classroom.

Eco (1974) defines learning styles as ways in which people create concepts, rules and principals that guide them in the face of new situations. Piers (2000) named preferable learners method in learning ideas as learning style. Fang (2002) defines processing type, internalization and information maintenance as learning style. Individual characteristics focused on learners' ability in order to inform acquisition, peers interaction and learning shared experiences are other variables offered by Alkhasoone and Mayanv (2007).

Despite numerous disagreements, learning styles are usually divided into three categories of: cognitive, affectively and physiologically which one has its own sub-components, context related and context free styles (Vitcain, 1997), impulsive and contemplative styles (Kagan, 1964), Mayers styles (1986), Grigo Ronkostyles (1979) Felder and Silverman (1988), Honey and Mumford are among salient learning styles.

Scholar named, Kolb with using offered approaches in Guilford and Piaget theories, has identified four thinking styles of divergent, convergent, assimilative and adaptive as a result of being a combination of four learning style namely objective experience, abstract conceptualization and active experimentation which are as follows: (1) Divergent style: a combination of objective experience and contemplative observation makes this style. People having this kind of learning style; look at the situations from different prospective. And their approach to these situations is observational rather than actionable. These people are interested in situations requiring expression of various thoughts. Also are interested in various cultural attractions and data collection. (2) Convergent: this style is comprised in two stages of abstract conceptualizing and active experimentation. People having this kind of style are adapted to finding feasible applications of theories and thoughts. Indeed they are competent at problem solving and making decisions on the basis of solutions that have found for their problems. They prefer to deal with technical problems rather than social and interpersonal ones (Seif, 2007). (3) Assimilative: This style combines abstract thinking and contemplative observation. People by this kind of style have the most capability in perception of a great deal of information and its logical combination. If this is your style, probably you are less concerned about people and you are more interested in abstract thoughts. This kind of style is effective in professions requiring information and knowledge. (4) Accommodating: This style combines objective experimentation approaches and an active experimentation. People with accommodating style are best at learning first hand experiences. If this is your style, probably you enjoy much more from conducting projects and dealing with new experiences.

According to Gardner, people have varying degrees of intelligence. In learning the process, all kinds of intelligences work with each other as complimentary forces. But the important point is that social skills that manifest in emotional intelligence have a crucial status in learning process organization and especially in modern view of learning (Gardner, 1989).

Mayer (1993) believes that characteristics such as social relationship skills, accurate perception and acceptance of others affections, have a very close relationship with learning quality or learning style. Unlike the past that learning was a kind of personal competition, today it's considered as a group activity, because learning social context plays a vital role in shaping mind sublime abilities, emotional developments and social skills nurturance.

Several researches have been conducted on relationship between emotional intelligence and learning styles. Some of them will be mentioned here: examination of the students learning styles based on Kolb theory (Azizi, 2003); examination of the relationship between emotional intelligence and academic achievement of university students (Samare, 2008); a comparison of gifted and normal students emotional intelligence and its relationship with academic achievement (KhalilyAzar, 2008); the relationship between emotional intelligence with psychological well-being and academic performance of males and females students (Bakhshi, 2009); Simmons researches, the relationship between gender and emotional intelligences, conducted by Loo (2002); differences between learning styles based on phenomena of interest (Sesar, 2003); examination of the relationship between students learning styles, gender, race and achievement trends (Fang, 2007); the influence of

emotional intelligence on the learning styles of graduate managers in Saudi Arabia and Malaysia (Giadeaka,2008); the relationship between learning styles and emotional intelligence (Suliman,2010); This study attempts to examine the relationship between students' emotional intelligence and learning styles and of course conceptualizing the relationship between these two variables.

Research questions

General question: Is there a relationship between emotional intelligence components and learning styles?

Subsidiary questions

- 1) Is there a relationship between emotional self-awareness and students' learning styles?
- 2) Is there a relationship between assertiveness and students' learning styles?
- 3) Is there a relationship between self-respect and students' learning styles?
- 4) Is there a relationship between self-actualization and students' learning styles?
- 5) Is there a relationship between dependence and students' learning styles?
- 6) Is there a relationship between interpersonal relationships and students' learning styles?
- 7) Is there a relationship between social responsibility and students' learning styles?
- 8) Is there a relationship between empathy and students' learning styles?
- 9) Is there a relationship between problem solving and students' learning styles?
- 10) Is there a relationship between reality testing and students' learning styles?
- 11) Is there a relationship between flexibility and students' learning styles?
- 12) Is there a significant relationship between psychological stress and students' learning styles?
- 13) Is there a significant relationship between impulse control and students' learning styles?
- 14) Is there a significant relationship between happiness and students' learning styles?
- 15) Is there a significant relationship between optimism and students' learning styles?

Method, population, participants, sampling method, tools

Current research is descriptive of a correlation type in that examines the relationship between emotional intelligence and learning styles. Participants were consisted of all 8000 students of Islamic Azad University, Khorasgan Branch. 320 were chosen by using random sampling method and the sample size formula. To collect data, two questionnaires; Kolb learning style and bar-on have been used. Also content and face validity of questionnaires were confirmed by several psychology and educational sciences experts. The reliability of both questionnaires was estimated by using Cronbach's alpha coefficient (α) which equals to 0.91 in emotional intelligence and 0.97 in learning styles.

Analysis of the data is done by using inferential statistics (including percentile, mean and standard deviation in descriptive and independent, Pearson correlation coefficient, one-way variance analysis and Tucky test).

RESULTS

Q1: Is there a significant relationship between emotional self-awareness aspect of emotional intelligence and students learning styles?

Q2: Is there a significant relationship between assertiveness aspect of emotional intelligence and students learning styles?

Table1

Predictive variable	Self-awareness			assertiveness		
Styles	Correlation coef.	Effect size	Sig.level	Correlation coef.	Effect size	Sig.level
Divergent style	-0.082	0.006	0.444	-0.078	0.006	0.469
Accommodation style	-0.031	0.000	0.783	0.032	0.001	0.780
Assimilative style	-0.033	0.001	0.836	-0.054	0.002	0.733
Convergent style	-0.146	0.021	0.139	-0.033	0.001	0.740

Q3: Is there a significant relationship between self-respect aspect of emotional intelligence and students learning styles?

Q3&Q4: Is there a significant relationship between self-actualizing aspect of emotional intelligence and students learning styles?

Table2

Predictive variable	Self-respect			Self-actualizing		
Styles	Correlation coef.	Effect size	Sig.level	Correlation coef.	Effect size	Sig.level
Divergent style	-0.199	0.039	0.061	-0.034	0.001	0.751
Accommodation style	0.108	0.011	0.342	0.185	0.034	0.104
Assimilative style	-0.119	0.014	0.453	-0.083	0.006	0.601
Convergent style	-0.001	0.000	0.995	-0.178	0.031	0.070

Results of table 2 show that neither self-respect nor self-actualization components were significantly correlated with any of the students learning styles at $\leq 0/05$ level.

Q5: Is there a significant relationship between self-actualizing aspect of emotional intelligence and students learning styles?

Q6: Is there a significant relationship between interpersonal relationship aspect of emotional intelligence and students learning styles?

Table3

Predictive variable	Independence			Interpersonal relationships		
Styles	Correlation coef.	Effect size	Sig.level	Correlation coef.	Effect size	Sig.level
Divergent style	-0.128	0.016	0.231	-0.046	0.002	0.666
Accommodation style	0.101	0.010	0.378	0.234	0.054	0.038
Assimilative style	-0.101	0.010	0.524	-0.121	0.014	0.445
Convergent style	-0.009	0.009	0.315	-0.155	0.024	0.116

Results of table 3 show that independence component was not significantly correlated with any of the students learning styles at $\leq 0/05$ level.

But correlational coefficient between interpersonal relationships and accommodating learning styles was significant at $\leq 0/05$ level. Based on r^2 , 5.4% of interpersonal relationships and accommodating learning style was shared.

Therefore the relationship between interpersonal relationships and accommodative learning style was confirmed. The relationships between interpersonal relationships and convergent, assimilative and convergent learning styles were not confirmed.

Q7: Is there a significant relationship between emotional responsibility aspect of emotional intelligence and students learning styles?

Q8: Is there a significant relationship between empathy aspect of emotional intelligence and students learning styles?

Table4

Predictive variable	emotional responsibility			empathy		
Styles	Correlation coef.	Effect size	Sig.level	Correlation coef.	Effect size	Sig.level
Divergent style	0.067	0.004	0.534	0.174	0.030	0.102
Accommodation style	0.113	0.012	0.322	0.007	0.000	0.954
Assimilative style	-0.130	0.016	0.413	-0.075	0.005	0.639
Convergent style	-0.078	0.006	0.433	-0.058	0.003	0.555

Results of table 2 show that neither social responsibility nor empathy components were significantly correlated with any of the students learning styles at $\leq 0/05$ level.

Q9: Is there a significant relationship between real testing aspect of emotional intelligence and students learning styles?

Q10: Is there a significant relationship between problem –solving aspect of emotional intelligence and students learning styles?

Table5

Predictive variable	Reality testing			Problem-solving		
Styles	Correlation coef.	Effect size	Sig.level	Correlation coef.	Effect size	Sig.level
Divergent style	-0.046	0.002	0.672	0.064	0.004	0.553
Accommodation style	0.013	0.000	0.911	0.148	0.021	0.192
Assimilative style	0.124	0.015	0.434	0.110	0.012	0.448
Convergent style	-0.056	0.003	0.570	-0.111	0.012	0.262

Results of table 5 show that neither real testing nor problem-solving components were significantly correlated with any of the students learning styles at $\leq 0/05$ level.

Q11: Is there a significant relationship between flexibility aspect of emotional intelligence and also students learning styles?

Q12: Is there a significant relationship between psychological stresses aspect of emotional intelligence and students learning styles?

Table6

Predictive variable	flexibility			Psychological stress		
Styles	Correlation coef.	Effect size	Sig.level	Correlation coef.	Effect size	Sig.level
Divergent style	-0.062	0.003	0.566	-0.159	0.025	0.136
Accommodation style	-0.008	0.000	0.941	0.138	0.019	0.226
Assimilative style	-0.038	0.001	0.814	-0.190	0.036	0.227
Convergent style	0.022	0.000	0.827	-0.031	0.000	0.756

Results of table 6 show that neither flexibility nor psychological stress components were significantly correlated with any of the students learning styles at $\leq 0/05$ level.

Q13: Is there a significant relationship between impulse control aspect of emotional intelligence and students learning styles?

Q14: Is there a significant relationship between happiness aspect of emotional intelligence and students learning styles?

Table7

Predictive variable	Impulse control			happiness		
Styles	Correlation coef.	Effect size	Sig.level	Correlation coef.	Effect size	Sig.level
Divergent style	0.077	0.005	0.471	-0.045	0.002	0.675
Accommodation style	0.222*	0.049	0.049	0.257*	0.066	0.022
Assimilative style	0.019	0.000	0.904	-0.115	0.013	0.468
Convergent style	0.066	0.004	0.507	-0.100	0.010	0.313

Results of table 7 show that impulse control and accommodating learning style correlated significantly at $\leq 0/05$ level. Based on r^2 , 4.9% of impulse control and accommodating learning style are shared. But the relationship between impulse control and divergent, assimilative and convergent learning styles was not confirmed. Also correlation coefficient of happiness and accommodating learning style is significant at $\leq 0/05$ level.

Based on r^2 , 6.6% of happiness and accommodating learning style was shared.

The relationships between happiness and convergent, assimilative and convergent learning styles were not confirmed.

Q15: Is there a significant relationship between optimism and students learning styles?

Table8

Predictive variable	optimism		
Styles	Correlation coef.	Effect size	Sig.level
Divergent style	-0.032	0.001	0.765
Accommodation style	0.102	0.010	0.372
Assimilative style	0.028	0.000	0.862
Convergent style	0.083	0.006	0.401

Results of table8 show that correlational coefficient of optimism is not significant with any of students learning styles at $\leq 0/05$ level.

DISCUSSION

Research results show that of 15 emotional intelligence components(emotional self-awareness, courage, self-esteem, self-actualization, independence, interpersonal relationships, liability, empathy, test of reality, problem solving, and flexibility, tolerance of psychological strains, impulse control, happiness and optimism) only a weak relationship between interpersonal relationships, controlled impulse and adaptive learning style appeared. No evidence of a relationship between other 13 components of emotional intelligence and learning styles of divergent, convergent and assimilative was found. Accommodating is one of the learning styles which

combines objective experience with active experimentation. These people enjoy much engaging one and prefer acting rather than analysis. A used method for people with this kind of learning style is role playing and computerized simulation. In conceptualizing of this research question it can be said that the accommodating learning style characteristics are given, it seems that happiness, controlled impulse and interpersonal relationships have more proximity with characteristics of this learning style.

Usually when people are happy, they can better control their aggressive impulses. Therefore it can shape more interpersonal relationships. It seems that giving the characteristics of accommodating learning style, people with this kind of learning style, have a more optimal condition in three emotional intelligence components (interpersonal relationships, impulse control and happiness). No evidence of a relationship between other emotional components and learning styles was found. Research findings are in a line with Giadenka (2008). Since only a weak relationship was found between three components of emotional intelligence and learning styles similarly. Our findings are also in line with Suliman (2010). Suliman has not reported any associations between Kolb fourfold learning styles and Bar-on emotional intelligence components. He concluded that emotional intelligence might have more associations with factors such as cultural and professional values. But our findings are not in contrast with Fong (2007) in three styles of learning styles (divergent, convergent and accommodative) he has reported a relationship between these components and emotional intelligence. Findings are also in contrast with Fong and Yeo. These researchers similarly don't report a relationship between assimilative learning style and emotional intelligence. In summary, it can be said that emotional intelligence shows people the ability while, learning style indicates personal preferences and not their ability. Consequently, lack of relationship between people's ability and preferences is logical.

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