



The relationship between cognitive, emotional and social intelligence with the academic performance of physical education students

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Submitted: 24 March 2023; Accepted: 13 April 2023; Published: 01 May 2023

ABSTRACT

The main purpose of this research is to investigate the relationship between cognitive, emotional and social intelligence with the academic performance of physical education students of Islamic Azad University of Urmia. In terms of the purpose of this research, it is an applied research type and a correlational descriptive research type, which was carried out in the field. The statistical population of the research includes all physical education students studying in the 2023 academic year of Urmia Azad University, which is a total of 650 people. The sample size based on Morgan's table is 241 people who were randomly selected. In this research, four emotional intelligence questionnaires of Bradbury and Graves (2004), cognitive flexibility questionnaire of Taghizadeh and Nikkhah (2015), social intelligence of Tet (2008) and academic performance of Pham and Taylor (1999) were used in this research to collect information. Cronbach's alpha method was used to calculate the internal reliability, and the internal reliability coefficient for the emotional intelligence questionnaire was 0.87, cognitive intelligence was 0.90, social intelligence was 0.78, and academic performance was 0.80. To check the relationship between research variables, Pearson's or Spearman's correlation coefficient was used at the significance level and regression analysis with spss software version 21. The results showed that there is a significant positive relationship between cognitive intelligence, emotional intelligence and social intelligence with the academic performance of physical education students of Urmia Islamic Azad University ($p < 0.05$).

Keywords: *cognitive, emotional, social intelligence, academic performance, physical education students, Islamic Azad University of Urmia*

INTRODUCTION

Improving educational systems is an important goal in all countries due to the special importance of education in the personal and professional development of people. Especially university systems are of particular interest because through the university,

educational efforts are made to develop skills that guarantee the future career success of students. Therefore, it is important to optimize the teaching-learning process through the study of effective variables for the process (Martinez et al., 2016).

One of the most important issues in the university is academic performance. The academic performance of students determines important aspects in their lives, among these things, we can mention educational advancement, getting a job and a suitable social position, and improving satisfaction (Moradian Ashrafabadi, 2013). Performance means students' ability to respond to issues related to the subject or special subjects foreseen for an educational course (Mayer et al., 2000). Academic performance is effective on a wide range of important aspects of life such as promotion in educational levels, having a suitable social position, more success in society and comfort (Galla, 2014). Academic performance includes the registration of all cognitive activities of the student, which is measured with an agreed grading system according to the different levels of emotional and educational activities and the timetable, and is considered as the process of academic progress (Khosh Kensh, 2006).

Academic performance refers to the abilities and skills learned and acquired by a person in different fields of study that can be measured and evaluated by means of standard tests. It is evaluated. The degree of success and academic performance of learners and especially students in the university indicates the importance of how successful the higher education system has been in achieving its predetermined goals in any culture and society. Choosing and paying attention to meeting individual needs and requirements. It can be said that a higher education system has good efficiency when the learners benefit from higher academic performance in many courses. Each of the different schools, thinkers and writers of sociology, psychology, educational sciences and its sub-fields have discussed the factors affecting students' performance. Various theories have been presented regarding the factors affecting academic performance. A group of thinkers emphasize the internal characteristics of people (intelligence, self-concept, etc.) and some others emphasize external factors (family, social class, educational environment, etc.) are considered important. On the other hand, education is one of the most important factors in the infrastructure of development. Developed countries usually have

an efficient education system, and developing countries lack proper education infrastructures (Pour Ali, 2014).

One of these internal factors that can affect the academic performance of students is intelligence. Intelligence is one of the main and important topics of psychology. Researchers have made different divisions of intelligence and are trying to examine them from different points of view and by knowing the relationship between them, make optimal use of them to increase the productivity of organizations. In this context, it seems that the three intelligences that can play a role in the success of a sports organization's human resources are emotional intelligence, cognitive intelligence, and social intelligence. Emotional intelligence is the ability to understand, describe, receive and control emotions. Emotional intelligence includes abilities such as self-stimulation, resistance in the face of failures, controlling impulses and delaying pleasures, regulating mood, empathizing and being hopeful. Emotional intelligence is conceptualized as a cognitive ability similar to verbal ability or quantitative ability, with the scope of content instead of emotions and not words or numbers (Mayer et al. 2000).

Emotional intelligence refers to non-cognitive abilities, capabilities and skills that affect people's ability to overcome environmental pressures. In another definition, emotional intelligence is the ability to be aware of one's own and others' feelings in order to recognize each emotion and use this data to guide one's thinking and performance and it is divided into four factors: identifying emotions, using emotions, understanding and managing emotions. They share emotions. In addition to being an important source of motivation and creativity, emotional intelligence also plays a decisive role in the development process of the organization and increases the loyalty and organizational affiliation of the individual and better adapts to organizational changes and technical advances (Mayer et al., 2000). For many years, it was believed that IQ is the only indicator of people's success rate, but psychologists found that non-cognitive aspects such as emotional and social

factors are also very important (Tulbure, 2012). Cognitive intelligence is an indicator for measuring intelligence, which is obtained by dividing mental age into chronological age. This intelligence is based on linguistic abilities, logical analysis, mathematical intelligence, calculation speed and high memory. Cognitive intelligence is inherited and it is the intelligence that helps a person in solving a mathematical problem, in planning and implementing a huge project, in scientific inventions and discoveries, and in general in the classroom (Batty et al., 2007). On the other hand, social intelligence is a necessary ability for people to communicate, understand and interact effectively with others (Chorli, 2013).

Social intelligence is used as the ability to perform tasks and interpersonal tasks and behave wisely in relationships. In other words, social intelligence is the ability that allows a person to behave appropriately in order to achieve a specific goal (Crown, 2009). Social intelligence seems to mean being smart in relationships, not about them (Johan, 2011). Albert Chet considers social intelligence to be good at dealing with others and getting their cooperation, and he believes that this intelligence is knowledge of interaction styles and strategies that can help a person achieve his goals in dealing with others. The need for progress is one of the basic motivations of humans. People whose need for improvement is stronger have a greater desire to complete and improve their performance. They prefer to conscientiously do tasks that are challenging so that it is possible to evaluate their progress compared to other people's progress in terms of criteria. In other words, it is a task-based behavioral development, which allows the individual's performance to be evaluated according to assumed internal or external criteria (Tulbure, 2012).

Carmeli (2003) concluded that there is a significant positive correlation between emotional intelligence, time management and quality of life with academic progress, step by step regression analysis. It showed that emotional intelligence, time management and quality of life can significantly predict academic progress.

Also, Galla et al. (2014) conducted a research titled explaining the relationship model of emotional intelligence, social intelligence and cognitive intelligence of physical education managers in Iranian universities. The findings showed that there is a positive and significant relationship between emotional intelligence and cognitive intelligence and social intelligence of physical education managers of universities. There is also a significant relationship between cognitive and social intelligence of physical education managers of universities and between emotional intelligence and social intelligence with cognitive intelligence of managers. A significant relationship was observed with physical education in universities and their correlation model has a favorable fit. Every educational system aims to determine the factors affecting academic performance in order to achieve the expected goals and move towards its own growth and excellence (Crowne, 2009). According to the mentioned materials, the research problem is whether there is a relationship between cognitive, emotional and social intelligence with the academic performance of physical education students of Islamic Azad University of Urmia.

MATERIALS AND METHODS

In terms of the purpose of this research, it is an applied type of research. In this research, the existing conditions of the component "emotional intelligence, cognitive intelligence, and social intelligence and the performance of physical education students" are investigated, which is a descriptive correlational type of research that is implemented in the field.

Statistical population and research sample

The statistical population of the research includes all physical education students studying at the undergraduate, graduate and doctoral levels of the 2023 academic year of Urmia Azad University, which is a total of 650 people. The sample size based on Morgan's table is 241 people who were randomly selected.

Data Collection tools

In this research, four emotional intelligence questionnaires of Bradbury and Graves (2004), cognitive flexibility questionnaire of Taghizadeh and Nikkhah (2015), social intelligence of Tet (2008) and academic performance of Pham and Taylor (1999) were used in this research to collect information.

Bradbury and Graves Emotional Intelligence Questionnaire: This questionnaire was written by Bradbury and Graves in 2004 and contains 28 questions with a six-point Likert scale (1-6). The reliability coefficient of this questionnaire is reported from 0.73 to 0.90.

Cognitive Flexibility Questionnaire: This questionnaire was created by Taghizadeh and Nikkhah (2015) and is a short self-report tool with 20 statements. The Cronbach's alpha of the questionnaire is 0.91 and its correlation coefficient is 0.81.

Tet Social Intelligence Questionnaire (SIQ): Prepared by Ang Tun Tet in 2008, it has 36 yes or no questions that are scored with one and zero. The reliability coefficient of this questionnaire is reported as 0.78.

Validity and reliability of questionnaires

It is necessary to have a measurement tool that has sufficient validity and reliability, therefore, from the opinions of respected professors, advisors and 7 other professors as experts and experts in the science of sports management to

match the questions with the options (content validity) and determine the validity alpha Cronbach method was used to calculate the internal reliability, and the internal reliability coefficient for emotional intelligence questionnaire was 0.87, cognitive intelligence was 0.90, social intelligence was 0.78, and academic performance was 0.80 by lpha Cronbach coefficient. For all variables, it was obtained greater than 0.7. Considering that alpha Cronbach coefficient is greater than the standard value of 0.7, we conclude that the questionnaires have good internal reliability.

Data collection method

In this research, a standardized questionnaire was used to collect the information needed to test the hypotheses. In addition, the importance of the research topic and how to complete the questionnaire and ensuring that the information will remain confidential were explained to the students so that they have the necessary accuracy and honesty in completing the questionnaires.

Statistical analysis methods

To check the relationship between research variables, Pearson's or Spearman's correlation coefficient was used at the significance level and regression analysis with SPSS software version 21.

RESULTS

TABLE 1: The results of Pearson's correlation test to investigate the relationship between cognitive intelligence and academic performance

		Academic performance	self-efficacy	emotional effects	planning	lack of outcome control	motivational
Cognitive intelligence	Correlation coefficient	0.453	0.472	0.159	0.416	0.365	0.409
	Sig	0.001	0.001	0.099	0.001	0.001	0.001
Flexibility in environmental situations	Correlation coefficient	0.314	0.348	0.107	0.28	0.271	0.278
	Sig	0.001	0.001	0.093	0.001	0.001	0.001
Flexibility in solving	Correlation coefficient	0.412	0.397	0.108	0.404	0.433	0.364
	Sig	0.001	0.001	0.093	0.001	0.001	0.001

Flexibility in deciding	Correlation coefficient	0.336	0.367	0.163	0.367	0.29	
	Sig	0.001	0.001	0.011	0.001	0.001	0.001

According to the results of the table, it can be seen that there is a significant positive relationship between cognitive intelligence and academic performance of physical education students of Islamic Azad University of Urmia.

Also, there is a significant positive relationship between cognitive intelligence and all components of academic performance of physical education students of Islamic Azad University of Urmia ($p < 0.05$).

TABLE 2: The results of Pearson's correlation test to investigate the relationship between emotional intelligence and academic performance

		Academic performance	self-efficacy	emotional effects	planning	lack of outcome control	motivational
Emotional intelligence	Correlation coefficient	0.275	0.25	0.332	0.175	0.121	0.205
	Sig	0.001	0.001	0.001	0.006	0.06	0.001
Flexibility in environmental situations	Correlation coefficient	0.314	0.348	0.107	0.28	0.271	0.278
	Sig	0.001	0.001	0.099	0.001	0.001	0.001
Self-awareness	Correlation coefficient	0.266	0.23	0.313	0.167	0.133	0.2
	Sig	0.001	0.001	0.001			
Self-management	Correlation coefficient	0.291	0.258	0.337	0.182	0.13	0.223
	Sig	0.001	0.001	0.001	0.004	0.044	0.001
Social Awareness	Correlation coefficient	0.273	0.255	0.312	0.164	0.113	0.214
	Sig	0.001	0.001	0.001	0.011	0.08	0.214
Relationship management	Correlation coefficient	0.235	0.224	0.282	0.162	0.093	0.159
	Sig	0.001	0.001	0.001	0.012	0.148	0.013

According to the results of the table, it can be seen that there is a significant positive relationship between emotional intelligence and academic performance of physical education students of Urmia Islamic Azad University. Also, there is a significant positive relationship between emotional intelligence and components

of self-efficacy, emotional effects, planning and academic performance motivation of physical education students of Islamic Azad University of Urmia ($p < 0.05$), but there is no significant relationship between emotional intelligence and the component of lack of outcome control ($p < 0.05$).

TABLE 3: The results of Pearson's correlation test to investigate the relationship between social intelligence and academic performance

		Academic performance	self-efficacy	emotional effects	planning	lack of outcome control	motivational
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Social intelligence	correlation coefficient	0.415	0.379	0.342	0.29	0.204	0.381
	Sig	0.001	0.001	0.001	0.001	0.001	0.001

According to the results of the table, it can be seen that there is a significant positive relationship between social intelligence and academic performance of physical education students of Islamic Azad University of Urmia. Also, there is a significant positive relationship between social intelligence and all components of academic performance of physical education students of Islamic Azad University of Urmia ($p < 0.05$).

DISCUSSION

The results of this research showed that there is a significant positive relationship between cognitive intelligence and academic performance of physical education students of Urmia Islamic Azad University. Also, there is a significant positive relationship between cognitive intelligence and all components of academic performance of physical education students of Islamic Azad University of Urmia ($p < 0.05$).

The results of this research are in line with the findings of Tracy (2022), Crowne (2009), Galla et al. (2014). Emotional intelligence theorists believe that cognitive intelligence tells us what we can do. Cognitive intelligence includes our ability to learn, think logically, and think abstractly. While emotional intelligence tells us how to use cognitive intelligence to succeed in life (Galla et al., 2014). Piaget believes that a person's intelligence performance differs quantitatively and qualitatively in different stages of life. In his opinion, it is not possible to determine where intelligence begins, but it is possible to plan the course of evolution and its final goal.

The results of this research showed that there is a significant positive relationship between emotional intelligence and academic performance of physical education students of Islamic Azad University of Urmia. Also, there is a significant positive relationship between emotional intelligence and components of self-efficacy, emotional effects, planning and

academic performance motivation of physical education students of Islamic Azad University of Urmia ($p < 0.05$), but there is no significant relationship between emotional intelligence and the component of lack of outcome control ($p < 0.05$). The results of this research are in line with the findings of Tulbure (2012), Alilo et al. (2023), Hazratian et al. Whatever emotional intelligence a person has at a certain time in his life, it is the level of his emotional intelligence that is the result of emotional lessons or continuous life experiences with him at that time. Therefore, high emotional intelligence helps to maintain a state of harmony and peace in oneself, and ultimately one gains more self-confidence in facing the challenges of life and learning.

The results of this research showed that there is a significant positive relationship between social intelligence and the academic performance of physical education students of Islamic Azad University of Urmia, and also there is a significant positive relationship between social intelligence and all components of the academic performance of physical education students of Islamic Azad University of Urmia (> 0.05). The results of this research are in line with the findings of Crowne (2009), Tracy (2022). Social intelligence is considered a predictor of success.

People are generally successful in absorbing new knowledge. Research has shown that social intelligence is an effective and decisive factor in real life outcomes such as success in university, education, job and interpersonal relationships. Social intelligence helps students to have better communication with professors, classmates and others, to have the ability to effectively manage their academic environment; therefore, it is possible to use the methods of strengthening social intelligence to increase the academic performance of students (Tracy, 2022). When students have social intelligence, it can lead to autonomy in them that these students can focus on opportunities to improve their education and overcome obstacles, work with initiative and perseverance and achieve success with their

efforts and despite negative consequences easily. They do not give up. These students share their experiences with their classmates and value their activities and themselves, which can lead to a sense of lightness and peace in them and remove fear and worry from them. They have more alertness and awareness and a more positive attitude towards life, which can lead to an increase in their academic performance. They can work better in difficult and unpleasant situations and have less vulnerability and have a high ability to face failures, calamities and conflicts and have a sense of responsibility and fairness and more value in front of events, which can lead to an increase in academic performance.

CONCLUSION

The purpose of this research is to examine the relationship between cognitive, emotional and social intelligence with the academic performance of physical education students of the Islamic Azad University of Urmia. Until now, psychological experts have presented many theories related to intelligence between types of intelligence with academic performance in universities and sports departments. In this research, the relationship between cognitive, emotional and social intelligence with the academic performance of physical education students of Islamic Azad University of Urmia was investigated. The results showed that between cognitive, emotional and social intelligence there is a significant positive relationship with academic performance.

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