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The Effect of Artistic Intelligence Components on Student's Mental Health

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Abstract

Purpose: The aim of this study was to investigate the effect of artistic intelligence components on students' mental health.

Methodology: this study was applied in terms of purpose and descriptive-correlational in terms of data collection and quantitative in terms of method. The statistical population was all the first high school students in Sari city in the academic year 20-2019 that according to Krejcie and Morgan table, 361 people were selected by multi-stage cluster sampling. The measurement tool was a researcher-made questionnaire of art intelligence with 55 items and mental health of Omidian and Alavi Langroudi with 46 items whose construct validity, using factor analysis method and reliability value through Cronbach's alpha coefficient, respectively. 0.94 And 0.92 were calculated. Data were analyzed using Pearson correlation coefficient and regression analysis.

Findings: The results showed that there is a significant relationship between artistic intelligence and its components (artistic talent, artistic attitude, artistic taste, artistic activity, artistic skills and art economics) with students' mental health. The components of artistic intelligence have a significant impact on mental health, as a total of 57% of students' mental health is explained (predicted). Also, the artistic taste component has the largest share in predicting students' mental health.

Conclusion: By creating the necessary opportunities, the necessary grounds for the flourishing of talents and the participation of all talented and artistic students can be provided, and by thanking and appreciating them and awarding prizes on various occasions. , Provided the grounds for their encouragement to develop their artistic skills.

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1. Introduction

Learning and academic achievement and the factors affecting it have always been of serious interest to psychologists and education professionals, and in recent years, they have always sought to identify variables that can help improve academic achievement (Ashuri, 2014). It should be noted that the performance and learning of each individual is affected by cognitive and emotional processes. Individual differences in this area are not only due to differences in intelligence, but also as a function of beliefs, judgments, thoughts, emotional tendencies, attitudes, values, and past experiences (Asgharnejad, et al., 2003). One of the characteristics of human beings is their special talent for learning and the importance of the role of emotions in learning has caused that this dimension of human existence has long been considered by educators and educators in order to stimulate, influence and guide ideas. And be trained. In addition, recognizing emotions and how they grow and how effective they are in learning individual and social behavior, as well as their balanced upbringing to prevent emotional poverty and achieve scientific and moral progress are educational topics (Shoari nezhad, 1996). Since emotions and their expression are important variables in learning topics (Thompson, 1994), the development of skills to regulate emotional experience and its expression play a major role in mental adjustment. Cognitive and social. However, weakness in these skills, such as weakness in emotion expression, can lead to impairments in psychologically healthy functioning (Cole et al., 1994). According to Salovay et al. (2002), initial efforts to increase academic achievement have focused on cognitive factors; however, these variables typically estimate a relatively small amount of variability in academic achievement. On the other hand, according to Ghanbarlo et al. (2015), they have claimed a strong and strong relationship between different types of emotional intelligence and its components and progress in different educational contexts (Ghanbarlo et al., 2015).

Among the types of intelligence and emotional intelligence as one of the most well-known types of intelligence that have effects on various aspects of a person's life, including academic, social, psychological, etc., the concept of artistic intelligence has recently been developed. In fact, from the past until now, the phenomenon of aesthetics as a fascinating and multidimensional subject has been considered by many philosophers and artists, and several theories have been proposed in this field. Aesthetics examines formal themes about art and the way we think about them. Having aesthetic experiences not only interacts with formal subjects, but also depends on how we feel about them and how we think about the emotions that give rise to cognition. Housen (2001) with the theory of stages of development provided a framework for explaining how one perceives many issues, including aesthetics. Inspired by the activities of Piaget and Vygotsky, he sought a pattern and order in the observable behaviors of people in the field of art and tried to interpret his observations. On the other hand, Reed (1984) believed that there are three stages in understanding aesthetic works; First, the mere perception of material qualities (such as colors, movements, and many other stimuli); Second, the arrangement of such perceptions and their organization into enjoyable shapes and patterns. In the third stage, harmonizing such arrangements and organizations with the pre-existing special emotional state, in which case it is said that a certain emotion or feeling is expressed (Rashid and Et al., 2017). Thus, when a person learns to think about his encounter with the world around him, he acquires a hidden capacity for artistic experiences, Thus, learning in art means learning ways of thinking and thus expanding learning. Recognizing qualitative visual relationships is a form of logical study of the context in which one uses one's senses, imagination, strategies, and evaluation. Therefore, the connection between emotions and sensory feelings forms the core of artistic intelligence experiences. Since psychological and social factors have important effects on human perceptions, they also affect his sense of art. The artistic factor in human works, in their perspectives and ideals and all moral, social and cultural motives is one of the most fundamental motivating factors in order to make more humanity around us (nature and society). Therefore, it is only through aesthetic emotions that man has been able to develop attachment to the environment and try to eliminate any inadequacies (Mohajer, 1996).

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According to the definition of the World Health Organization (2011), health is the complete physical, mental and social well-being and not just the absence of disease. Thus, the World Health Organization defines the concept of mental health as something beyond the absence of mental disorders, which includes mental well-being, self-efficacy perception, independence and self-sufficiency, self-efficacy and self-fulfillment of potential mental and emotional abilities. According to this definition, how a person adapts to the environment is an important factor in mental health. In other words, one must be able to balance what one does or wants to do on the one hand and what the environment expects one to do on the other. In other words, individual adaptation requires meeting one's personal needs in accordance with environmental realities. Zhang et al (2019) reported that Asian students are at risk for depression, which may prevent them from attending school classrooms. Existing statistics estimate the high prevalence of mental health problems, especially depression, among adolescents at 16 to 30 percent (Burns, & Grove, 2010). Bruffaerts et al. (2018) reported in their studies that students' mental health problems are very common in the early years of adolescence and are significantly associated with poor academic performance. Also, Wyatt et al. (2017) showed that the prevalence and severity of mental health problems have increased among students and these issues are a threat to their health and academic performance. The effects of mental health on 9.11% of children and adolescents are the same as the effects of mental health on adults, whereas, children and adolescents suffer from certain vulnerabilities compared to adults. Also, children and adolescents have dependencies with adults that can control exposure to stressful and problematic mental health risks (Greene et al., 2018). Taatian, Asgharzadeh (2015) also showed that students with strong spatial and visual intelligence use cameras and camcorders to learn and enjoy visual puzzles. These people visualize topics that verbal intelligence describes. In this type of intelligence, people who benefit from it prefer to think visually. Therefore, the use and application of different shapes and types of maps, diagrams, tables, curves, images, photos, posters, slides, movies, visual puzzles, computer graphics software, 3D shapes, fiction, visual metaphors , Visual design, collage, painting, watercolor, graphic, sculpture, pottery, mental design and all areas of visual arts have an impact on the development of students' spatial and visual intelligence.

It should be noted that the scientific approach to artistic intelligence is important in that the tasteful and individual aspects of art criticism, which is less credible, can be examined more closely with empirical methodology. On the other hand, it makes it possible to enjoy artistic activity not only in everyday life, but also in the field of psychology and psychiatry. Because socialist and popular art can get out of the control of properties and inaccessible to the public, out of the exile of museums and galleries, and out of concert halls, and pave the way for scientific function in the service of improving the quality of collective knowledge and change. Open a society and fulfill its main mission. In addition, the intensification of various artistic and aesthetic experiences among the general public and the mass tendency of people to the arts such as pop music, photography, and cinema has created a new aesthetic understanding that cannot be ignored. Therefore, more people's attention to art can be a very suitable background for the implementation of educational programs, so that by recognizing the abilities of people and placing them in various art classes, Provide a platform for their talents to flourish (Rashid, et al, 2017).

Studies show that there is less research that has dealt with the effect of artistic intelligence on students' mental health, at least the results of research have not been published and have not been made available to other researchers, therefore It is very important to study the subject in a student society and during adolescence, which is a very sensitive period of one's life. Lack of attention to adolescent mental health leads to mental disorders with long-term consequences in life and reduces the productive capacity and safety of communities. Therefore, the simultaneous recognition of adolescents' mental disorders provides the basis for identifying issues and planning for appropriate policies for their future health. In the meantime, the role of all types of intelligence, especially artistic intelligence, which is a manifestation of aesthetic feelings, positive thinking and positive thinking, is undeniable. Therefore, considering the issues raised, this

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study seeks to find the answer to this question: Does artistic intelligence affect the mental health of junior high school students in Mazandaran province?

2. Methodology

According to the purpose of this study to investigate the effect of artistic intelligence on student's mental health, the present research design is applied research in terms of purpose and correlation studies in terms of method. The statistical population is all high school students in the city of Sari in the academic year 20-2019, the total number of this statistical population is 5843 people. To select the sample size, refer to Krejcie and Morgan (1970) table. Based on this, the number of samples was equal to 361 people. It should be noted that this table shows the maximum sample size at a confidence level of ninety-five percent ($\alpha = 0.05$). In this study, multi-stage cluster random sampling method was used to select the sample. Accordingly, among the education districts of Sari city (1 and 2), the accident occurred in District 2; Among urban and rural schools located in District 2, by accident urban schools; Among male and female students, by accident, female students, and among the first secondary schools, ie seventh, eighth and ninth, by accident, ninth grade; Selected. Thus, sampling continued until the number of samples reached the research level (361 people). In the meantime, the questionnaires that were distorted for any reason or the information of some pages was not completely filled out of the sampling cycle were removed so that the actual number of samples was equal to 361 people. In order to collect the required information about the variables studied in this study, a closed-ended questionnaire was used.

Artistic Intelligence Questionnaire: Researchers designed this questionnaire (researcher-made) in the form of 55 items in which the Likert scale was used on a distance scale and the respondent chose a very high option, 5 points; High, 4 points; To some extent, 3 points; Low, 2 points and very little 1 point. Hence, the number 3 was considered as the cut-off point (theoretical average). The face and content validity of this questionnaire was confirmed by 7 faculty members at the Islamic Azad University of Gorgan. The validity of the structure was calculated using factor analysis and it was found that the six identified components (artistic talent, artistic attitude, artistic taste, artistic activity, artistic skill and art economics), explain a total of 88.63% of the total variance. The reliability of the questionnaire (total) was obtained by calculating the Cronbach's alpha coefficient of 0.94.

Mental Health Questionnaire: This questionnaire was designed by Omidian and Alavi Langroudi (2008) with 46 items. In this measurement scale, the positive state of mental health (existence of characteristics related to the feeling of life satisfaction) including items 1, 2, 3, 4, 11, 12, 14, 15, 16, 17, 18, 19 20, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43 and 44 and the negative state of mental health (existence of mental problems and feelings of dissatisfaction) including items 5, 6, 7, 8 9, 10, 13, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 34, 45 and 46. This scale of measurement consists of the Likert attitude spectrum at a distance scale that responds strongly to choosing the option, 1 point; I disagree, 2 points; I have no comment, 3 points; Agree, 4 points and strongly agree 5 points. Omidian and Alavi Langroudi (2008) calculated the reliability value by internal consistency method and Cronbach's alpha coefficient equal to 0.92. In this study, only the positive mental health status section was used.

Pearson correlation coefficient and regression analysis with SPSS23 software were used to analyze the data.

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3. Findings

Table 1 shows the descriptive analysis (central indicators and dispersion) of the studied variables.

Table1. Central indicators and dispersion of variables

Variable	Components	Minimum	Maximum	Sample average	The standard deviation
Artistic intelligence	Talent	1	5	3/70	1/18
	Attitude	1	5	3/66	0/91
	the Verve	1	5	3/14	1/22
	Activity	1	5	3/89	0/95
	Skill	1	5	3/86	0/91
	Economy	1	5	3/92	0/82
	Total	1	5	3/70	0/54
Mental Health		1/25	4/87	3/56	0/96

Table 1 showed that the mean of artistic intelligence and its components (artistic talent, artistic attitude, artistic taste, artistic activity, artistic skill and art economics) and mental health in students is higher than average (cut-off point: 3) Is. Table 2 shows the calculations for the value of the relationship between the variables.

Table2. Investigating the correlation between artistic intelligence and mental health

Variables		Statistical indicators		
Predictors	Criterion	Number	Correlation (r)	Significance level
Talent	Mental Health	361	0/44**	0/000
Attitude		361	0/38**	0/000
the Verve		361	0/34**	0/000
Activity		361	0/41**	0/000
Skill		361	0/49**	0/000
Economy		361	0/36**	0/000
Artistic intelligence		361	0/74**	0/000

**: Significance at the level of 0.01 errors

Table 2 showed that there is a significant relationship between artistic intelligence and its components (artistic talent, artistic attitude, artistic taste, artistic activity, and artistic skill and art economics) with mental health in students. Because the significance level (Sig. = 0.000) is smaller than the predicted error (= = 0.05). After determining the significant relationship between the components of artistic intelligence (predictor variables) and mental health (criterion variable), regression analysis test was performed and it was found that all components of artistic intelligence remain in the model and enter the regression equation. . In the following, the results of the regression analysis hypotheses are reported: Error independence test: Calculation of the value of the camera-Watson statistic (1.84) showed the assumption of independence between errors (errors are the difference between real values and predicted values Are accepted by the regression equation, because the value of the camera-Watson statistic is in the range of 2.5 - 1.5. , Because the diagram showed that the errors have a normal distribution with a mean of zero and standard deviation close to one. There is no high correlation between art skills and art economics, and the probability of alignment between predictor variables is close to zero. On the one hand, the tolerance coefficients (1/1/31/31) are greater than the coefficient of variance inflation (0.76-0.99) (if the inflation factor increases relative to the tolerance, it causes Increase the variance of regression coefficients and make regression unsuitable for prediction); On the other hand, the value of the status index was calculated to be less than 15 (7.5-0.14), which indicates the probability of non-alignment between the predictor variables. Also, eigenvalues were calculated more than zero (0.13-1.36), which shows that the internal correlation of low predictor variables and small changes in data values lead to large changes in the estimation of regression equation coefficients. It is not possible. Table 3 shows the variables that remain significant in the linear regression equation.

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Table3. Multiple correlation coefficients in the regression equation

Predictive variables	Criterion variable	r	r^2	r2 Modified
Talent, attitude, taste, activity, skill and art economics	Mental Health	0/76	0/57	0/56

Table 3 showed that all predictor variables in the linear regression equation remained and were significant and explained (predicted) 57% of students' mental health in total, Because the coefficient of determination (r2) was calculated to be 0.57. Table 4 shows the F value obtained from the regression analysis of variance.

Table4. Regression analysis of variance

Source of changes	sum of squares	Df	average of squares	Statistics F	Significance level
regression	189/78	6	31/63	79/02**	0/000
left over	141/68	354	0/40		
Total	331/46	360	-		

**: Significance at the level of 0.01 errors

Table 4 showed that artistic intelligence (artistic talent, artistic attitude, artistic taste, artistic activity, artistic skill and art economics) has a significant effect on students' mental health. Because the significance level (Sig. = 0.000) is smaller than the predicted error (= = 0.05) and the value of F from the analysis of variance is F = 79.02. Table 5 shows the coefficients (B and β) of the variables entered in the regression equation.

Table5. Coefficients of variables entered in the regression equation

Predictive variables	B	Beta	t	Sig.
Talent	0/23	0/29	7/56**	0/000
Attitude	0/17	0/16	4/19**	0/000
the Verve	0/28	0/36	10/22**	0/000
Activity	0/15	0/15	3/84**	0/000
Skill	0/32	0/31	7/98**	0/000
Economy	0/15	0/13	3/46**	0/000

**: Significance at the level of 0.01 errors

Table 5 showed the component of artistic talent with an impact factor of 0.29, artistic attitude with an impact factor of 0.16, artistic taste with an impact factor of 0.36, artistic activity with an impact factor of 0.15, artistic skills with an impact factor of 0.31 and the component of art economics has an impact factor of 0.13. Accordingly, the component of artistic taste has the largest share in predicting students' mental health, followed by the components of artistic skill, artistic aptitude, artistic attitude, artistic activity and art economics, respectively.

4. Discussion

The aim of this study was to investigate the effect of artistic intelligence on students' mental health. Findings showed that there is a significant relationship between artistic intelligence and its components (artistic talent, artistic attitude, artistic taste, artistic activity, artistic skills and art economics) with students' mental health. The results of regression analysis also showed that the components of artistic intelligence have a significant effect on mental health, so that in total, 57% of students' mental health is explained (predicted). Also, the component of artistic taste has the largest share in predicting students' mental health, followed by the components of artistic skill, artistic aptitude, artistic attitude, artistic activity and art economics, respectively.

In explaining the results, in line with the findings of Burns, & Grove, 2010)) since the scope of art exists in all phenomena of creation and the basis of human creation is also intertwined with art, also through artistic intelligence , Man can express his feelings in a non-verbal language, artistic intelligence can be considered a factor for the flourishing of initiatives, creativity and innovation of each person's talents by creating self-confidence, self-fulfillment, cheerfulness, vivacity, hope, sense Persistence, empathy, communication skills and especially self-esteem help people to pay attention to their mental health.

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Especially today, art, artistic intelligence and art therapy are one of the tools to strengthen and discharge psychological emotions and a factor in the prevention of well-known mental illness.

In this regard, the findings of Greene, et all (2018). They showed that in most societies, people, especially adolescents and young people, have lost the ability to express their emotions through emotional unspoken words, which is contrary to their mental health, while every human being should normally have the power to express their mental emotions, to be able to play a good role in performing the assigned tasks. Meanwhile, the factor that helps artistic intelligence to human beings is the stress-relieving nature of art. In other words, artwork can reduce mental anxiety and give the brain a chance to think better and more correctly. Artistic activities cause constant involvement of the brain and nerves, and this conflict helps to prevent forgetfulness and Alzheimer's to a large extent. Creative thinking and problem-solving skills are other benefits that artistic activities bring to human beings, and the more time people spend in this field, the healthier they will be.

Also, studies by Wyatt, et all (2017). Consistent with the findings of the present study, it was shown that by engaging in art programs, individuals can rebuild their social relationships and thereby help reduce loneliness and isolation. Therefore, artistic intelligence creates a meaningful relationship, creative and personal expression, eagerness to observe, explore and develop the most appropriate forms and methods of presentation, the ability to have an aesthetic sense, respect for cultural heritage, awareness of life And the work of artists, the acquaintance with new techniques of art production, the integration of new learning with past experiences and the like, students as well as learning words and sentences through language skills such as listening and speaking. They present their favorite content through reading and writing, they can with basic elements such as line, color, shape, weight, etc., through artistic production and with the help of artistic abilities such as beauty. Cognition, art history and art criticism show their thoughts that together can create a feeling of peace of mind in different people.

Considering the results of this study, in order to further strengthen artistic intelligence in students, it is suggested that officials and those involved in educational systems, including education and higher education, by making positive changes in attitudes and beliefs. Students emphasize the need to pay attention to artistic intelligence as one of the factors for the growth and development of personal and social health and through programs and educational models, produce appropriate content in students' textbooks, hold meetings Education for families, holding seminars for students, especially students in the fields of educational sciences and psychology, etc., through the employment of specialists in art curricula, to pursue this issue more than before. It is also expected that in order to increase the capabilities and professional competencies of art teachers in all levels of education across the country, serious attention will be paid to education officials and staff. By creating the necessary opportunities, school principals can also provide the necessary grounds for the flourishing of talents and the participation of all students with artistic talent and taste, and by thanking and appreciating and awarding prizes on various occasions from provide them with opportunities to develop their artistic skills.

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