



## **Explain of Students Creativity Based on Spiritual Happiness with Mediating Role of Perfectionism**

**Farnaz. Moin Mehr<sup>1</sup>, Gholam Ali. Afrooz\*<sup>2</sup> & Mahdi. Davae<sup>3</sup>**

1. PhD Student, Department of Exceptional Psychology, Central Tehran Branch, Islamic Azad University, Tehran, Iran.
2. Professor, Department of Exceptional Children, Faculty of Educational Sciences and Psychology, University of Tehran, Iran.
3. Assistant Professor, Department of Educational Sciences, Central Tehran Branch, Islamic Azad University, Tehran, Iran.

<i>ARTICLE INFORMATION</i>	<i>ABSTRACT</i>
<b>Article type</b> Original research Pages: 28-37	<b>Background and Aim:</b> Students' innovative and creative thinking determines important aspects of their lives; however, environmental and personality factors affecting it, have been neglected. This study was conducted with the aim of "explaining students' creativity on spiritual vitality with the role of perfectionism". <b>Methods:</b> The research was descriptive and structural equation modeling type. The statistical population of the study consisted of all male and female students studying in the undergraduate level of architecture schools in Tehran in the academic year 2020, of which 300 students (150 girls and 150 boys) were selected by cluster random sampling method. Abedi Creativity Questionnaire, Afrooz Spiritual Joy Questionnaire and Terry Short Questionnaire were used to collect data. Data analysis was performed at two levels of descriptive and inferential and with the necessary assumptions and with SPSS and AMOS software version 24 and at the significance level of 0.05. <b>Results:</b> Based on the results of this study, the proposed model of causal relationships between the mentioned variables had an acceptable fit. In general, in the proposed research model, the results showed that spiritual vitality is directly and indirectly related to creativity through perfectionism in students. Also, the results showed that the relationship between spiritual vitality and perfectionism is inverse and significant. <b>Conclusion:</b> According to the results of the research, it is suggested that the authorities, by preparing programs, in addition to increasing awareness on creativity and its development stages, have a special focus on promoting students' spiritual vitality.
<b>Corresponding Author's Info</b> Email: <a href="mailto:Afrooz@ut.ac.ir">Afrooz@ut.ac.ir</a>	
<b>Article history:</b> Received: 2022/05/28 Revised: 2022/09/01 Accepted: 2022/11/28 Published online: 2023/04/22	
<b>Keywords:</b> <i>Creativity, Spiritual vitality, Perfectionism, Student.</i>	
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### **How to Cite This Article:**

Moin Mehr, F., Afrooz, Gh. A., & Davae, M. (2023). Explain of Students Creativity Based on Spiritual Happiness with Mediating Role of Perfectionism. *Jayps*, 4(1): 28-37.

## Introduction

Human civilization has been dependent on the creative thinking of man, and its sustainability is impossible without the use of creativity, which is considered the highest function of the human mind. In the current situation, creative thinking is considered not only a necessity, but also a condition for survival. Therefore, it is necessary for the educational system at different levels to emphasize the education and training of people who are able to creatively solve unpredictable problems (Arvahi, 2013).

Psychological research indicates that all children who are born have potential God-given abilities, but these abilities are more in some and less in others due to various hereditary and environmental reasons (Alborzi, 2014). In recent years, the perception of creativity as only attainable by a gifted few has changed to a more fundamental definition, according to which anyone can be creative in some fields, given the right conditions and adequate support. According to Torrance (2013), creativity, sensitivity to problems, deficiencies, problems and gaps in human knowledge, guessing and forming hypotheses about these deficiencies, evaluating and testing guesses and hypotheses, possible modification and retesting them (Barzegar Bafroei et al., 2014).

Although the ability to think creatively is potentially and naturally deposited in humans, the growth and emergence of creativity requires its cultivation. According to the belief of most researchers and experts, creativity exists in all people and it can be brought to the fore by encouraging and persuading. However, the lack of innovations in educational environments, the stability of existing procedures and methods, and environmental barriers limit this (Piri, 2015). This is despite the fact that according to the results of previous researches, the growth of creativity in students is influenced by several factors such as: personality traits (Torabi & Saif, 2012; Joybari et al., 2015), family functioning and coping styles (Jaafarlou et al., 2019), emotional intelligence (Heidari & Asiyaban, 2013) and spirituality (Khazaipol et al., 2019). The ability to pursue academic goals is not separate from mental health (Seif Derakhshande & Narimani, 2019) and spirituality plays a very prominent role in providing mental health (Dehadari et al., 2018). In fact, spirituality is a fluid path in which people walk to different

degrees. Due to the prominence of the dimension of escape in the multidimensional structure of spirituality, most people consider the goal of spiritual behaviors to escape from everyday life issues and achieve self-actualization in humans (Rauf et al., 2019). Spiritual vitality is among the constructs related to spirituality (Radbakhsh et al., 2013). Spiritual vitality means a feeling of peace, kindness and hope with piety and forgiveness, freshness, inner clarity, and heart belief in the Creator of existence (Joibari et al., 2015). Spiritual vitality is a deep satisfaction and pleasure that exists beneath all the superficial waves of daily life (Radbaksh et al., 2013). In this regard, Joybari, Nomeli, Thanago and Tagvikish (Solemani et al., 2017) showed that in the experience of spiritual vitality of students, the main themes are "closeness to God", "feeling of cheerfulness and vitality", "feeling of peace", "Activities affecting spiritual vitality" and "Real and sustainable vitality" are significant. Many studies have been done in this field, but most were descriptive and not modeling. For example, Mamqani et al. (2018) in a research showed that mother's authoritative parenting style, spiritual vitality (one of the environmental factors) and general intelligence (one of the cognitive factors) are related to creativity. Khazaei-Poul, Ebrahimi, Gol-Mohammadi, and Pashaei (Safaei Rad et al., 2018) also showed that students' participation in cultural and charitable activities and religious ceremonies all leads to a sense of spiritual vitality in students. On the other hand, unlike in the past, when attention was paid to the role of cognitive factors in the field of creative thinking and innovation, recent researches also emphasize the importance of personality factors (Sadeghi et al., 2014; Sadati Firouzabadi & Yousefi, 2019), Kamal Orientation is one of the personality and motivational characteristics that affect a person's behavior and is characterized by characteristics such as trying to be perfect and setting very extreme standards in performance along with a tendency to evaluate behavior critically. (Abassi and Khademlou, 2018). If perfectionism is positive, it can be associated with self-confidence and a higher level of resilience and make a person more capable of facing academic and social life challenges (Abassi & Khademlou, 2018). Research findings have confirmed the existence of normal (positive) perfectionism in contrast to neurotic (negative) perfectionism. Positive perfectionism includes high but accessible personal standards, the tendency to

order and organization in affairs, feeling satisfied with one's performance, search for excellence in affairs and orientation to the situation. On the other hand, negative perfectionism is defined by high and unrealistic standards, excessive concern about personal mistakes and shortcomings, perception of a large distance between personal performance and standards, and pathological doubt in affairs (Abdollahi & Nasiri, 2018).

In this context, Honin (Kakavand et al., 2013) showed in a research that there is a significant relationship between self-perception, perfectionism, and mindfulness. Also, the results showed that the predictor variables together explained 31% of the variance of creativity. Zeng et al. (Kiamarsi et al., 2018) also showed that there is a significant relationship between creativity and problem solving skills, and the relationship between creativity and academic performance was also positive and significant. Investigating motivational, personality and spiritual variables as influencing variables on creativity and investigating interactive relationships between these variables in the majority of a general model in this research helps to understand the antecedent factors of creativity better. Since the research conducted so far has not shown the relationship between these variables in the form of an organized model with relationships between variables, it is necessary to study these relationships. The general purpose of the current research is to present a model to investigate the effect of spiritual vitality on creativity with the mediation of perfectionism, so that by realizing the effect of these factors and their direct and indirect effects on creativity, it can be more Anticipated and controlled creativity.

### Method

The current research was conducted based on the cognitive paradigm and is a fundamental research; This research is one of the descriptive (non-experimental) researches, and more precisely, the correlation of the path analysis type, and the research tool was quantitative. The statistical population of the research included all male and female students studying at the undergraduate level of architecture schools in Tehran in the academic year of 2020. Among the architecture schools in Tehran including Tarbiat Debir Shahid Rajaee University, Tehran South branch Azad Islamic University, West Branch Azad Faculty of Architecture, Irshad non-profit university, Yadgar Imam branch Islamic Azad University, Soura University and University of Science and Technology by random method a cluster

of two architecture schools was selected and 300 students were selected as a sample from among all undergraduate students (150 girls and 150 boys). Descriptive statistics, Pearson correlation coefficient and structural modeling were used to analyze the data. Research assumptions included Kolmogorov-Smirnov test, Durbin-Watson test, tolerance coefficient and variance inflation. Also, the data analysis software was SPSS and AMOS version 24.

### Tools

**1. Creativity scale.** This scale consists of four components: fluidity, expansion, innovation and flexibility. The options indicate low, medium, and high levels of creativity, which are assigned a score of 1, 2, and 3, respectively. The total scores obtained in each dimension represent the subject's score in that dimension, and the sum of the subject's scores in all four dimensions represents the total creativity score. The range of the total creativity score of each subject varies from 60 to 180 (Mamqaniu et al., 2019). The reliability of Abedi's creativity test was obtained through the retesting of middle school students in Tehran in the four parts of the test: fluency 0.85, initiative 0.82, flexibility 0.84 and extension 0.80 (Abedi, 1993). In examining the validity of the test, Torrance's creativity test was performed on 200 of these students, and Torrance's test was used as a validity indicator at the same time. The correlation coefficient between the total score of the new test and the total score of the Torrance test is equal to 0.46 (Mohammadi Mirzaei and Behbodhi, 2017). Also, the reliability of the questionnaire has been checked and the coefficients for fluency 0.75, initiative 0.67, flexibility 0.61, and expansion 0.61 have been obtained (Veiskarami and Youssef Vand, 2018).

**2. Scale of spiritual vitality.** This scale has 60 questions. A score above 160 in this scale indicates a high level of spiritual vitality and a score below 60 indicates low spiritual vitality in a person. Cronbach's alpha of this questionnaire was reported as 0.77. To determine the validity, the correlation of the total score with each question of the scale has been used. The range of obtained correlation coefficients varied from 0.45 to 0.83 and was significant at the 0.05 level. The content validity of this tool has been confirmed by several experts (Radbakhsh et al., 2013).

**3. Perfectionism scale.** This scale includes 40 questions and two subscales of positive perfectionism and negative perfectionism. The scoring of the questionnaire is on a 5-point Likert

scale, in which completely disagree is assigned a score of 1, disagree with a score of 2, don't know with a score of 3, agree with a score of 4, and completely agree with a score of 5. The psychometric properties of this scale have been confirmed outside of Iran. In Iran, the validity of the questionnaire was confirmed by using the opinions of psychology professors and experts, and its reliability was calculated using the Cronbach's alpha method of 0.78 (Abassi and Khademlou, 2018).

### Results

The results showed that, from the highest to the lowest score, the average (and standard

deviation) of the total perfectionism score among students is equal to 122.13 (18.22) and the total score of spiritual vitality is equal to 67.23 (6/52) (Table No. 1). Moreover, the results of Table No. 1 showed that the distribution of the scores of the research variables is normal with 95% confidence. Since the significance levels of normality statistics are greater than 0.05 ( $P < 0.05$ ), the scores' distribution is normal. Based on this, the parametric tests of Pearson's correlation coefficient and multivariate regression can be used and its results are reliable.

**Table 1. Descriptive statistics of the research variables along with the results of the Kolmogorov-Smirnov test**

Variable	Mean±Standard deviation	K-S sig.
creativity	69/49 ± 28/16	0/135
spiritual vitality	67/23 ± 6/52	0/135
perfectionism	122/13 ± 18/22	0/365

The result of the skewness and kurtosis test for the normality of the distribution of scores showed that the indices of skewness and kurtosis are not outside the range of  $\pm 1$ . Based on this, it can be concluded that the distribution of their data is normal. The assumption of independence of errors was checked with a test. Since Watson's camera statistics were between 1.5 and 2.5, therefore, the correlation between

the errors is rejected, that is, the errors are not correlated. According to Table No. 2, the Pearson correlation coefficient results showed a positive and significant relationship between perfectionism and creativity among students ( $r=0.560$  and  $p=0.014$ ). The relationship between spiritual vitality and creativity among students was positive and significant at the 0.05 level.

**Table 2. Pearson correlation coefficient of research variables**

Variable	Creativity	
	r	Sig.
spiritual vitality	0/608**	0/017
perfectionism	0/560**	0/014

**\*\*Probability value at 0.01 level & \*Probability value at 0.05 level**

**Table 3. Path coefficients of direct effects between research variables in the proposed model**

Path	Beta	Std error	Critical ratio	Sig.
perfectionism →creativity	0/376	0/083	14/642	0/005
spiritual vitality →creativity	0/412	0/054	9/594	0/002
spiritual vitality →perfectionism	-0/251	0/052	-3/732	0/002

According to Table No. 2, the Pearson correlation coefficient results showed a positive and significant relationship between perfectionism and creativity among students

( $r=0.560$  and  $p=0.014$ ). The relationship between spiritual vitality and creativity among students was positive and significant at the 0.05 level.

Table No. 3 shows that all direct paths are significant in the final model at a level less than 0.01. In order to check the indirect relationship of the proposed model, the bootstrap method has been used in the Preacher and Hayes computer command. The results of the bootstrap method for investigating indirect mediating paths are presented in Table 3. According to the results of

Table No. 3, if the upper and lower limits of the Bootstrap index are in the same direction, that is, both positive and both negative, the variable of spiritual vitality has an indirect relationship with the variable of creativity through the variable of perfectionism, and the indirect causal path is significant.

**Table 4. Path coefficients of direct effects between research variables in the proposed model**

<b>Indirect patch</b>	Data	Boot	Bias	Lower bound	Upper bound
<b>Spiritual vitality → perfectionism → creativity</b>	0/0156	0/0147	0/0001	0/0413	0/0532

In the following, the indicators listed in Table No. 5 were used to check the model's suitability. According to the obtained values, if the indices of the mean square root error of approximation, the normalized fit index, the unnormalized fit index, the comparative fit index, the incremental fit index, the goodness of fit index, and the adjusted goodness of fit index or large scale adaptation are 0.90, indicate the appropriate and optimal fit of the model. As can be seen in the above table, these indicators are all greater than 0.90. Also, the index of root mean square error of approximation and probability of closeness of fit show that the original model has a good fit. When the value of this statistic is less than 0.05, it indicates that the model is suitable. As can be

seen in Table No. 5, the probability of closeness of the research model is greater than 0.05. Therefore, the prediction model is at a favorable level.

Table No. 5 of the Bootstrap test shows the indirect causal relationship of the research variables. According to Table No. 5, if the upper and lower limits of the Bootstrap index are in the same direction, i.e. both positive and negative, spirituality through perfectionism has an indirect relationship with the creativity variable among students, and the indirect causal path is significant. According to the data from this table, the root mean square error index is approximately equal to 0.071, which indicates a good and favorable fit of the model.

**Table 5. Path coefficients of direct effects between research variables in the proposed model**

<b>Indicators</b>	Value	Limit
<b>chi square (2<math>\chi</math>)</b>	0/260	-
<b>degrees of freedom (DF)</b>	1	-
<b>root mean square error of approximation (RMSEA)</b>	0/071	< 0/004
<b>Normalized Fit Index (NFI)</b>	0/91	< 0/9
<b>Non-Normalized Fit Index (NNFI)</b>	0/97	< 0/9
<b>Comparative Fit Index (CFI)</b>	0/93	< 0/9
<b>Incremental Fit Index (IFI)</b>	0/92	< 0/9
<b>goodness of fit index (GFI)</b>	0/95	< 0/9
<b>Adjusted or adaptive goodness of fit index (AGFI)</b>	0/96	< 0/9

### Conclusion

This research was conducted to "explain students' creativity based on spiritual vitality with the role of perfectionism". The research's first finding showed a positive and significant relationship between perfectionism and creativity among students. Also, the regression analysis showed that perfectionism could explain

the changes related to creativity among students well and it shows the appropriateness of the presented regression model. Therefore, the first hypothesis of the research is confirmed.

This relationship is explained because more research needs to be done to study the role of perfectionism and creativity in students. Based on theoretical foundations, the relationship

between perfectionism and creativity can be explained in such a way that people with positive perfectionism consider standards for themselves. However, instead of reaching or not reaching those standards, they need to try to reach the goal. They enjoy striving and competing for excellence and perfection, and at the same time, they recognize personal limitations and try to choose high but adaptable and reasonable standards. According to Dagir, people with positive perfectionism compete with themselves and not with others, while people with negative perfectionism are more concerned about making mistakes, they never feel victorious. Even if they work better than others, they still don't feel satisfied and constantly blame themselves and will never be satisfied with their performance due to unrealistic expectations. These perfectionists have high levels of anxiety and fear of failure and suffer from various types of depression and neurosis. It is worth mentioning that the results of the present study are in line with the results of previous studies such as Sadati, Behpejoh, Afrooz and Moltaft (Anderson et al., 2019), Arwahi (Bangu et al., 2014), Albarzi (Hovenin, 2021), Piri (Hartugsan, 2018) and etc.

Adler also described the concept of striving for excellence as a basic fact of life. Excellence is the ultimate goal towards which we strive to perfect ourselves and become integrated. This natural goal is oriented toward the future. The strong need to succeed and to avoid the criticism of others and to avoid the appearance of flaws and defects forces perfectionists to perform continuous and hard activities in order to achieve success. According to Hamachek, perfectionists normally have rational and realistic expectations of themselves based on their abilities and limitations. These expectations are accompanied by effort and activity. They accept their mistakes and try to improve their performance. They fight for success and progress flexibly. They accept personal and situational limitations and set challenging yet reasonable goals for themselves (quoted by Jafarlou, Sharifi and Sharifi, 2019). In fact, creativity is based on human will. Creativity is the right to choose and the power to decide to choose, and a person can perform behaviors without repetition in thought and action, but it is necessary to have the motivation to progress. Students who are motivated by the need for improvement struggle to achieve goals and have rational and realistic expectations of

themselves based on their abilities and limitations. These expectations in them are accompanied by striving for excellence, order and organization in their activities, and they push themselves towards greater progress. These learners learn new skills and concepts with high motivation and perseverance. Finally, their efforts lead to a sense of satisfaction and self-esteem, and learners will most likely show their creativity (quoted by Jafarlou, Sharifi and Sharifi, 2019).

Another finding of the current research showed that there is a positive and significant relationship between spiritual vitality and creativity among students. Also, the regression analysis showed that spiritual vitality can explain the changes related to creativity among students well, and it shows the appropriateness of the presented regression model. Therefore, the second hypothesis of the research is confirmed. In line with this research finding, a review of the research showed a relationship between the parent's popularity in terms of the child and spiritual vitality with the level of creativity of high school students. In general, the researches about the effects of spiritual vitality with other psychological structures are limited, and about the desired variable and its relationship with creativity, the study is very limited. Most studies in this field have focused on the structure of happiness and life satisfaction. Considering that there is no specific research in this field and this variable has been conceptualized recently (Safaei Rad et al., 2018), it is considered a new field for research. Nevertheless, Momqani et al. (Sadati et al., 2008), consistent with the present study's findings, showed that mother's authoritative parenting style and spiritual vitality as environmental factors and overall intelligence are cognitive factors that have a significant relationship with creativity.

In the same context and in line with the present findings, Abdulahi and Nasiri (Pipkings & Rinker, 2020) also showed that there is a significant relationship between spiritual health and creativity and spiritual health and positive thinking style in sports teachers. Viskarmi and Yusufvand (Pernaso et al., 2019) also concluded in an independent study consistent with the present study's findings that there is a significant relationship between the total happiness score and the academic vitality and creativity of Lorestan University of Medical Sciences students. In the explanation above, it can be said

that people in a good mental and emotional state have expanded their intellectual horizons. This issue causes divergent and creative thinking and a better and flexible view of the issues, and a lively and cheerful spirit increases the human ability to think and be creative.

In other words, students who work in a lively and cheerful mood, seeing the signs around them: They show creative activities more easily than people who live with an unhappy state and low spirituality and are distracted and engaged in frustration and defective and incomplete information processing. In line with the theories of positivist psychology and humanism, it can be said that having a spirit of humor and cheerfulness is one of the general characteristics of creative people. Happiness and vitality provide the basis for people's creativity, with a sense of disappointment and frustration, people cannot be expected to pay attention to and deal with the surrounding issues creatively. Also, positive emotions make one's mind open to stimuli, and this in turn creates opportunities to pay more attention to the environment. As a result, it increases a person's creativity. At the same time, negative emotions and low vitality can be associated with negative emotional experiences and numerous cognitive errors and defective information processing. As a result, a person's creativity decreases or cannot be manifested.

Another finding of the present study, with the help of Pearson's correlation coefficient, showed that there is a negative and significant relationship between spiritual vitality and perfectionism among students. Also, the regression analysis showed that spiritual vitality can explain the changes related to perfectionism among students well, and it shows the appropriateness of the presented regression model. Therefore, the third hypothesis of the research is confirmed. In recent years, with the expansion of positive psychology, spiritual and vitality-oriented structures have been the main research in this approach. The important mental characteristic that a person with mental well-being should have is the feeling of cheerfulness. Achieving perfection and flourishing one's hidden and potential talents and abilities is very valuable in itself, and perfectionism is a positive and desirable thing in this valley. Piaget was the first person who indirectly refers to metacognition and uses it in connection with

mental processes. In his studies in the field of cognitive structure, he has examined the subject of consciousness and unconsciousness. In his opinion, cognitive awareness refers to a specific awareness of one's thinking processes and its verbal explanation. Therefore, a conscious person not only has the ability to do something, but is also clearly aware of how to do it, and this awareness can have a reciprocal effect on the person's sense of vitality and happiness.

In line with the current findings, Mohammadi Mirzaei and Behbodhi (Sapopo et al., 2018) showed in a study that happiness is closely related to perfectionism and developed defensive styles. In the present explanation, under the theories of psychoanalysis such as Hornay and Faram, it can be argued that when a person is at a high level psychologically and in general health, the amount of needs and prejudices and negative perfectionism in him to a large extent It will be less and in contrast positive and constructive social interaction and self-acceptance and environment will be high in him. In this context, humanistic psychologists have also shown that vitality and a feeling of happiness are related to less attention to dry norms and social obligations and attention to individual talents and abilities. Therefore, it can be said that high negative perfectionism will be an obstacle in the way of feeling cheerful due to high psychological pressure in the individual and the need to pay attention to the outside of himself. But on the other hand, when a person's level of logical thinking is high, in terms of personality, especially the structure of perfectionism is proportional, in this way, psychologically, he pays attention to his talents and happiness.

This study, like other studies in the field of behavioral sciences, faced limitations. The first limitation of the present study is related to the data collection method. A self-report questionnaire was used to collect data. This can lead to incorrect, biased and distorted answers due to various personal reasons and fatigue. Another limitation of this study is related to the studied population. Since the population of the present study was selected from undergraduate students of architecture schools in Tehran, this limits the possibility of generalizing the results to other student populations. The last limitation of this study is related to the type of research that is descriptive and cross-sectional, which does not

make it possible to draw cause-and-effect conclusions from the results.

In short, this study's results showed that students' creativity can be predicted based on behavioral and cognitive structures. Therefore, according to the first limitation of the study, it is suggested to use other data collection methods such as observation and interview in addition to the questionnaire in future studies. According to the second limitation of the study, it is suggested that in future studies, in addition to undergraduate students, other study courses and from different faculties of humanities, medical and technical sciences, engineering, and art-architecture should be selected and studied. It is suggested that in future studies, in order to achieve deeper and broader results in the field of students' creativity, this structure should be repeated with regard to personality, family, social, psychological and spiritual variables and among different populations.

#### Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

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