

The Role of Emotion Regulation Strategies and Self-Compassion in Predicting Test Anxiety (Including Case Study)

Mohadese Nazari^{1*}, Mohammad Taghipour²

¹ General Psychology, Rasht Branch, Islamic Azad University, Rasht, Iran

² Department of Industrial Engineering, Ooj Institute of Higher Education, Qazvin, Iran

Email Address

Mohadeseh.nazari71@gmail.com (Mohadeseh Nazari)

*Correspondence: Mohadeseh.nazari71@gmail.com

Received: 20 September 2021; Accepted: 15 January 2022; Published: 6 May 2022

Abstract:

Exam anxiety is one of the most important reasons for academic failure in students, so finding related variables is an undeniable necessity. The aim of this study was to determine the role of emotion regulation and self-compassion strategies in predicting exam anxiety in undergraduate students. The statistical population of the present study included all undergraduate students of Islamic Azad University, Rasht Branch in the academic year 2009-2010, with an approximate number of 4500 people. From the study population, a sample of 312 people were selected according to Morgan table and using cluster random sampling method. The obtained data were analyzed using Pearson correlation coefficient and multiple regression. Findings showed that between the total score of emotional regulation strategies and the components of emotional reassessment and emotional inhibition; and there is a positive and significant relationship between the total score of self-compassion and the components of kindness with oneself, the feeling of human commonalities and mindfulness with the total score of test anxiety and the components of worry and excitement ($P < 0.05$). In contrast, between the isolation component with the total test anxiety score and the anxiety and excitement components; And there is a negative and significant relationship between self-judgment component and total test anxiety score and excitement component ($P < 0.05$). While between the component of self-judgment with the component of concern; There was no significant relationship between the component of similarity with the total score of test anxiety and the components of anxiety and excitement ($P < 0.05$).

Keywords:

Emotional Regulation Strategies, Self-Compassion, Exam Anxiety

1. Introduction

When we are in a situation such as evaluating student performance, we see a special manifestation of anxiety called test anxiety that puts scholars in front of an educational challenge (Vandrambs, Bartrian, & Sejoul, 2013). Therefore, taking exams is always associated with anxiety. This anxiety interferes with students' ability

to use learning strategies effectively and reduces motivation (Rupley and Komatsu, 2018). Exam anxiety in the fifth edition of the Guide to Diagnosis and Classification of Mental Disorders was classified into specific anxiety categories (Lebo, Glenn, Liu, Vichen, Bezdo Boom et al., 2010). In a ten-year study, Yu, Grick, and Lim reported a prevalence of test anxiety ranging from 10 to 40 percent. The term test anxiety as a scientific construct refers to a set of perceptual, physiological, and behavioral responses that are associated with concern about possible negative consequences or failure in an exam or similar assessment situations. The most important consequences of test anxiety are the intense emotions one experiences in evaluated situations. When test anxiety occurs, most cognitive and attention processes interfere with effective performance in the task and have two components of worry and excitement (Goldstein, 2017). Exam anxiety in learners as an academic problem is associated with compromising individual adaptations and negatively affecting self-esteem, success, efficiency and academic performance (Brady, Hard & Grass, 2018). According to researchers, emotion is one of the main manifestations of test anxiety (Heydarian and Norouzi, 2014). Emotional regulation refers to the method of managing and manipulating the input of information, the emotional caller, and emphasizes the two components of emotional reassessment and emotional inhibition (Aldow, Nolen-Hooksma, 2014). According to the research of Khalili, Shafaqati, Ishaghi Moghadam and Rafieipour (1398), emotion regulation can affect test anxiety from both cognitive and emotional dimensions. Several studies have emphasized the relationship between emotion regulation strategies and test anxiety. Also, among the variables related to exam anxiety is self-compassion or self-compassion (Khazaei Koohpar and Golpour, 2019). Self-compassion has recently been explored as one of the most effective strategies for reducing negative emotions (Ehret, Jorman, & Breaking, 2018). Nef, Garmi, and Christopher (2013) consider self-compassion to consist of three main components: Kindness to self, shared humanity, and mindfulness (Nef self-compassion is related to feelings of self-love and concern and care for others, but does not mean self-centeredness or prioritizing one's needs to others (Nef and McKee, 2015). Also, Sivakumar and Rajakumari (2019) in a study showed that test anxiety has a negative relationship with self-knowledge and compassion in men and emotional intelligence, self-knowledge and compassion with others in women. There is also a negative relationship between test anxiety and self-compassion in men and women. Also, the results of Tang (2019) research showed that cognitive test anxiety has a significant relationship with compassion and is also known as a positive predictor of resilience. Indeed, resilience is the strongest positive predictor of uncertainty intolerance, which is significantly associated with self-referential consequences. Given the importance of emotional regulation and self-pity strategies in various aspects of students' education, reaching new strategies to reduce test anxiety, research in this field can be helpful and effective, which shows the practical necessity of research. University officials along with all those in charge of youth affairs, including counselors, psychologists, psychiatrists, assistants, counseling centers and psychological services in the city and the National Youth Organization can benefit from the results of the present study. The present study seeks to answer the fundamental question of whether emotional regulation and self-compassion strategies play a role in predicting exam anxiety in undergraduate students.

2. Materials

The present study was a descriptive correlational study and the statistical population was all undergraduate students of Islamic Azad University, Rasht Branch in the

academic year 2009-2010 with an approximate number of 4500 people. From the study population, a sample of 354 people was first selected using Morgan table and multi-stage cluster random sampling method and Spielberg (1980) test anxiety questionnaire, Gross and John (2003) emotional regulation strategies, And Self-Compassion Nef (2003) responded. After reviewing the research questionnaires, 42 questionnaires were deleted due to distortion and the research continued with 312 people as a sample. Criteria for entering the research were being a bachelor's student, interest in participating in research and studying in the Islamic Azad University of Rasht, and the criteria for exclusion from the research were incomplete completion of questionnaires and coronavirus infection.

In order to receive the letter of introduction from the research unit of the university and obtain the necessary licenses to conduct research, the list of faculties and fields of study of the undergraduate level of the Islamic Azad University of Rasht was received. Then, three faculties of humanities, management and accounting, and nursing and midwifery were randomly selected from the faculties of Azad University. In the next stage, among the fields of study, the faculties of these three faculties were randomly selected from each faculty, 2 fields and a total of 6 fields of psychology, law, management, accounting, nursing and midwifery. Then, 2 classes were selected from each field and after providing preliminary explanations about the purpose of the research and attracting the participation of the subjects and assuring the subjects that the information was confidential and their informed satisfaction, the questionnaires were given to all members of the class. Subjects are previously asked to answer questions honestly. After completing the questionnaires out of 354 samples, 42 questionnaires were incomplete or distorted and were excluded from the research process. Therefore, the questionnaires of 312 students were analyzed. The performance was group and there was no time limit for answering the questions. Questionnaires were distributed among participants during February 2017 and data were collected.

3. Tools

The tools used in this research are:

Spielberg Test Anxiety Questionnaire (1980):

The Test Anxiety Scale was developed by Spielberg in 1980. This questionnaire has 20 items that describe the reaction before, during and after the exam. The test anxiety questionnaire consists of two subtests, "anxiety" and "excitement", which measure the individual differences of the subjects in test anxiety. Some of the items in this questionnaire are based on the Test Anxiety Scale and others are prepared by the manufacturers. The test anxiety questionnaire is a self-report, with each subject answering each item on a four-choice scale of 0 to 3 ("almost never", "sometimes", "often" and "almost always"). Spielberger developed and validated the questionnaire in a study of students. Using factor analysis, the anxiety and excitability components were obtained, which are as valid as the general anxiety score. This questionnaire has been translated and validated by Abolghasemi et al. (2002). Cronbach's alpha coefficients of this questionnaire in girls and boys samples were above 0.92. Reliability coefficients of retesting after three weeks and one month have been reported to be 0.80 (Register et al., 1991). Al-Zahr (1991) Anthony et al. (1991) and Bundles et al. (1995) reported the Cronbach's alpha coefficient of this questionnaire on students between 0.92 and 0.97. In the research of Abolghasemi et al. (2002) on

120 high school students, the reliability coefficients of internal consistency, halving and retesting (after four weeks) of this questionnaire were 0.92, 0.92 and 0.90, respectively. In the present study, the reliability of this questionnaire was obtained by Cronbach's alpha method for the total score of test anxiety 0.77.

Gross and John Emotional Regulation Strategies Questionnaire (2003):

This questionnaire was developed by Gross and John in 2003. This questionnaire has ten items and measures the two strategies of emotional inhibition and cognitive reassessment. The subject answers each item of this questionnaire based on a seven-point Likert scale from strongly disagree to strongly agree. The range of scores on this scale is from 10 to 70. In Gross and John (2003) research, the internal consistency coefficient of this questionnaire in cognitive reassessment strategy was 0.72 for men and 0.79 for women. Also, the internal consistency coefficient in the emotional inhibition strategy is 0.67 for men and 0.69 for women. Soleimani and Habibi (2014) in their study reported Cronbach's alpha coefficient for cognitive reassessment strategies 0.71 and emotional inhibition 0.81. In the present study, the reliability of this questionnaire was obtained using Cronbach's alpha coefficient for the total score of emotion regulation strategies 0.88.

Nef Self-Compassion Scale (2003):

This scale was designed by Neff in 2003 and has 26 items and is answered as a 5-point Likert scale (from never = 1 to always = 6). The minimum and maximum scores of this tool are 12 to 60, respectively. Questions 1, 4, 8, 9, 11 and 12 are also scored in reverse. Higher scores in this tool indicate the low level of self-pity of the participants. This questionnaire has 6 subscales of self-esteem, self-belief, common human trait, isolation, mindfulness and over-assimilation. In the Nef report (2008), Cronbach's alpha coefficient of this scale was 0.92 and Odo and Brinker (2014) reported this coefficient as 0.86. In internal research, Taghipour (2011) in a study reported Cronbach's alpha coefficients for the whole scale of this questionnaire 0.81. Also, Rajabi, Gestil and Aman Elahi (2016) in their research have reported the Cronbach's alpha coefficient of the whole scale as 0.65. In the present study, the reliability of this questionnaire was 0.83 by Cronbach's alpha method. To analyze the data obtained in this study, descriptive statistical methods such as frequency, frequency percentage, mean and standard deviation of research variables, as well as skewness and elongation to investigate the normal distribution of data in the subjects and at the statistical level Inference, Pearson correlation coefficient and multiple regression were used by stepwise method using SPSS22 statistical software.

4. A Review of Research History

Taghipour et al.[1], studied Risk analysis in the management of urban construction projects from the perspective of the employer and the contractor.

Taghipour et al.[2], studied The Evaluation of the Relationship between Occupational Accidents and Usage of Personal Protective Equipment in an Auto Making Unit.

Taghipour et al.[3], studied Necessity Analysis and Optimization of Implementing Projects with The Integration Approach of Risk Management and Value Engineering.

Taghipour et al.[4], studied Implementation of Software-Efficient DES Algorithm.

Taghipour et al.[5], studied Risk assessment and analysis of the state DAM construction projects using FMEA technique.

Taghipour et al.[6], studied Assessment of the Relationship Between Knowledge Management Implementation and Managers Skills.

Taghipour et al.[7], studied Evaluation of the effective variables of the value engineering in services(Qazvin Post Center Case Study).

Khalilpour et al.[8], studied The Impact of Accountants Ethical Approaches on the Disclosure Quality of Corporate Social Responsibility Information an Islamic in Iran.

Taghipour et al.[9], studied Evaluating CCPM method versus CPM in multiple petrochemical projects.

Taghipour et al.[10], studied Evaluation of Tourist Attractions in Borujerd County with Emphasis on Development of New Markets by Using Topsis Model.

Taghipour et al.[11], studied A Survey of BPL Technology and Feasibility of Its Application in Iran (Gilan Province).

Khodakhah Jeddi et al.[12], studied The Analysis of Effect Colour Psychology on Environmental Graphic in Childeren Ward at Medical Centers.

Taghipour & Moosavi.[13], studied A look at Gas Turbine Vibration Condition Monitoring in Region 3 of Gas Transmission Operation.

Habibi Machiani et al.[14], studied THE RELATIONSHIP BETWEEN SOCIAL RESPONSIBILITY AND BRAND OF COMPANIES

Taghvaei yazdi et al.[15], studied The Impact of Intellectual Capital on Organizational Entrepreneurship (Case Study: Mazandaran Science and Technology Park).

Azarian et al.[16], studied The Effect of Implementing Total Quality Management on Job Satisfaction (Including Case-Study)

Ghadamzan Jalali et al.[17], studied Explain the Relationship Between Intellectual Capital, Organizational Learning and Employee Performance of Parsian Bank Branches in Gilan province.

Tarverdizadeh et al.[18], studied Predicting students' academic achievement based on emotional intelligence, personality and demographic characteristics, attitudes toward education and career prospects through the mediation of academic resilience.

Ghaed Amini Harouni et al.[19], studied Effectiveness of Self-control and Aggression Reduction Skill Training of Male Juvenile Delinquents Correction and Rehabilitation Center (Including Case-Study).

5. Findings

The subjects of this study included 312 undergraduate students of Islamic Azad University, Rasht Branch, ranging in age from 19 to 59 years. The mean and standard deviation of the sample age was 30.26 years. 68.6% (212 people) of the sample were girls, and 31.4% (98 people) were boys. In addition, 20.2% (63 people) of the sample in psychology, 18.9% (59 people) in law, 13.1% (41 people) in management, 18.6% (58 people) in Accounting, 15.1% (47 people) were studying nursing, and 14.1% (44 people) were studying midwifery. In Table 1, descriptive indices of research variables are reported as mean and standard deviation. Also, skewness and elongation values

were used to evaluate the normal distribution of variables in the subjects. Statistics of Deviation from linearity of emotional regulation strategies (emotional reassessment and emotional inhibition) and self-compassion (kindness to self, self-judgment, and sense of human commonality, isolation, mindfulness, and over-assimilation) were not significant with students' test anxiety. Whereas, the f-statistic was linear for this relationship.

Therefore, it can be concluded that the strategies of emotional regulation and self-compassion with students' test anxiety are linear. The hypothesis of error independence was also tested by the Watson camera test. The value of the camera-Watson test (2.226) is in the range of 1.5 to 2.5, which indicates the assumption of error independence. Also, the coefficient of variance inflation factor (VIF) for all variables was below 10, which indicates the absence of multiple alignment between the predictor variables. According to the above assumptions, regression is unobstructed.

Table 1. Descriptive indices of research variables and skewness and elongation values ($n = 312$).

Variable	Average Stretch skew	Standard Deviation	Skewness	Elongation
Total score of emotion regulation strategies	37/833	6/555	0/067	-0/210
Emotional reassessment	22/801	4/430	0/314	-0/533
Emotional deterrence	15/032	3/293	-0/255	-0/732
Your total self-pity score	69/375	5/162	-0/452	-0/355
Component of kindness to yourself	9/310	2/339	1/294	-0/963
Your own judgment	19/285	2/747	-0/187	-0/716
Feeling of human commonalities	7/484	1/919	0/261	-0/627
Isolation	11/743	1/633	0/601	-0/200
Mindfulness	7/980	2/594	1/077	0/723
More like imitation	13/570	1/590	-0/021	-1/010
Total score of exam anxiety	27/375	6/114	-0/001	1/468
Worry	13/435	3/567	0/561	0/972
Excitement	13/939	4/247	-0/465	0/649

As shown in Table 2, between the total score of emotional regulation strategies and the components of emotional reassessment and emotional inhibition with the total score of test anxiety and there is a significant negative relationship between anxiety and excitement components ($P < 0.05$). In other words, students who have more appropriate emotion regulation strategies; they have lower test anxiety index and vice versa. Also, there is a significant negative relationship between the total score of self-compassion and the components of self-compassion, human commonalities and mindfulness with the total score of test anxiety and the components of anxiety and excitement ($P < 0.01$). In contrast, between the isolation components with the total test anxiety score and the anxiety and excitement components; There is a positive and significant relationship between self-judgment component and total test anxiety score and excitability component ($P < 0.05$).

Table 2. Pearson correlation coefficient The relationship between emotional regulation strategies and self-compassion with students' test anxiety.

Variable	Worry	Excitement	Total score of exam anxiety	
	r	r	r	
Total score of emotion regulation strategies	37/833	6/555	0/067	-0/210
Emotional reassessment	22/801	4/430	0/314	-0/533
Emotional deterrence	15/032	3/293	-0/255	-0/732
Your total self-pity score	69/375	5/162	-0/452	-0/355
Component of kindness to yourself	9/310	2/339	1/294	-0/963
Your own judgment	19/285	2/747	-0/187	-0/716
Feeling of human commonalities	7/484	1/919	0/261	-0/627
Isolation	11/743	1/633	0/601	-0/200
Mindfulness	7/980	2/594	1/077	0/723
More like imitation	13/570	1/590	-0/021	-1/010
Total score of exam anxiety	27/375	6/114	-0/001	1/468
Worry	13/435	3/567	0/561	0/972
Excitement	13/939	4/247	-0/465	0/649

The results of regression analysis based on Table 3 showed that in the final step, among the predictor variables, four variables were able to predict changes in students' test anxiety separately. Emotional reassessment, mindfulness, isolation, and feelings of human commonality are able to predictively predict students' test anxiety, respectively. Among these, emotional re-evaluation is 20.8%, mindfulness is 10.9%, isolation is 7.7%, and human common sense is 4%. In total, these variables are able to predict 43.4% of the rate of change of the criterion variable ($R^2 = 0.434$). Also, the observed F value is significant for the predictor variables at the level of 0.001. This finding shows that these four variables are able to predict students' test anxiety.

Table 3. Regression model, analysis of variance and statistical characteristics of student test anxiety regression based on emotional regulation and self-compassion strategies.

Step	Model	Total squares	Degrees of freedom	Average squares	F	P	R	R2	ΔR2
1	Regression	2419/782	1	2419/782	81/453	0/001	0/456	0/208	0/206
	Residual	9209/343	310	29/708					
2	Regression	3690/313	2	1845/157	71/818	0/001	0/563	0/317	0/313
	Residual	7938/812	309	25/692					
3	Regression	4576/671	3	1525/557	66/625	0/001	0/627	0/394	0/388
	Residual	7052/454	308	22/898					
4	Regression	5051/125	4	1262/781	58/935	0/001	0/659	0/434	0/427
	Residual	6578	307	21/427					

Table 4 also shows non-standardized and standardized regression coefficients and a significant study of these coefficients is reported. The effects of emotional reassessment, mindfulness, isolation, and feeling of human commonalities are $\beta = -0.335, -0.314, \beta = 0.278$, and $0 -0.21$, respectively. That the variables of emotional reassessment, mindfulness, and human common sense negatively and the variables of isolation positively predict changes in students' test anxiety; that is, by increasing levels of emotional reassessment, mindfulness, and feelings of human commonalities and decreasing levels of isolation; Students' test anxiety index decreases.

Table 4. Stepwise regression coefficients of students' test anxiety on predictor variables.

Indicators Variables	B	b Standard Errors	β	t	P
Fixed number (a)	36/601	2/651		13/806	0/001
Emotional reassessment	-0/462	0/061	-0/335	-7/551	0/001
Mindfulness	-0/739	0/106	-0/314	-6/970	0/001
Isolation	1/041	0/163	0/278	6/368	0/001
Feeling of human commonalities	-0/671	0/143	-0/211	-4/706	0/001

6. Discussion and Conclusions

The results showed that there is a positive and significant relationship between the total score of emotional regulation strategies and the components of emotional reassessment and emotional inhibition with the total score of test anxiety and the components of anxiety and excitability. Explaining this finding, we can say that emotion regulation strategies include the use of behavioral and cognitive strategies to change the duration or intensity of the experience of an emotion (Gross and Thompson, 2007). And it has been found that people in the face of stressful events, use different emotion regulation strategies to modify or modify their emotional experience (Aldau, Nolen-Hooksma and Sweiser, 2014). The study also showed that there is a positive and significant relationship between the total score of self-compassion and the components of self-compassion, human commonalities and mindfulness with the total score of test anxiety and the components of anxiety and excitement. In this regard, Tang (2019) in a study found that cognitive test anxiety has a significant relationship with compassion and is also known as a positive predictor. In addition, the study showed that the variables of emotional reassessment, mindfulness, and the feeling of human commonalities positively and the variables of isolation negatively and in total 43.4% of the rate of changes in students' test anxiety predict. These findings are implicitly in line with the results of research by Masoudifar et al. (2015), Kurd and Babakhani (2015), Singh et al. (2017), Rajakumari (2019). Explaining this finding, he said that in dealing with stimuli, we first evaluate them automatically, immediately and unconsciously. As a result, we tend to what we consider good or useful and avoid what we consider bad or harmful.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

Funding

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

References

- [1] Taghipour, M.; Seraj, F.; Amir, H.M.; Farahani, K.S. Risk analysis in the management of urban construction projects from the perspective of the employer and the contractor. *International Journal of organization Leadership*, 2015, 4, 356-373.
- [2] Taghipour, M; Kheirkhahan, H; Mahboobi, M; Mohammadi, M. Evaluation of the Relationship between Occupational Accidents and Usage of Personal

- Protective Equipment in an Auto Making Unit. *International Journal of Innovative Research in Science, Engineering and Technology*, 2015, 4(9).
- [3] Taghipour, M; Seraj, F; Seraj, M. Necessity Analysis and Optimization of Implementing Projects with The Integration Approach of Risk Management and Value Engineering. *A Journal of Economics and Management*, 2015, 5(1), 330-346.
- [4] Taghipour, M; Moghadam, A; Moghadam, N.; Shekardasht, B. Implementation of Software-Efficient DES Algorithm. *Advances in Networks*, 2015, 3(1), 7-22.
- [5] Taghipour, M.; Sharifzadeh, S.; Seraj, F. Risk assessment and analysis of the state DAM construction projects using FMEA technique. *Trends in Life Sciences An International Peer-reviewed Journal*, 2015, 4(2).
- [6] Taghipour, M.; Saffari, K.; Sadri, N. Assessment of the Relationship Between Knowledge Management Implementation and Managers Skills (Case Study: Reezmoj System Company in Iran). *Science Journal of Business and Management*, 2016, 4(4), 114-120.
- [7] Taghipour, M.; Nokhbefallah, M.; Nosrati, F.; Yaghoubi, J.; Nazemi, S. Evaluation of the effective variables of the value engineering in services(Qazvin post center case study). *Journal of Applied Environmental and Biological Science*, 2015, 5(12), 319-322.
- [8] Khalilpour, M.; Kamyabi, Y.; Nabavi, C.S.A.; Taghipour, M. HE Impact ofAccounts' Ethical Approaches on The Disclosure Quality of Corporate Social Responsibility Information an Islamic Perspective in Iran. *National Academy of Managerial Staff of Culture and Arts Herald*, 2018, 1, 1173-1181.
- [9] Taghipour, M.; Seraj, F.; Amin, M.; Changiz, D.M. Evaluating CCPM method versus CPM in multiple petrochemical projects. *Management*, 2020, 3(3), 1-20.
- [10] Taghipour, M.; Ahmadi, S.J. Evalation of Tourist Attractions in Borujerd County with Emphasis on Development of New Markets by Using Topsis Model. *Science Journal of Business and Management*, 2015, 3(5), 175-189.
- [11] Taghipour, M.; Safari, M.; Bagheri, H. A Survey of BPL Technology and Feasibility of Its Application in Iran (Gilan Province). *Science Journal of Circuites, Systems and Signal Processing*, 2015, 4, 5, 30-40.
- [12] Khodakhah, J.L.; Kasrayee, F.; Khodakhah, J.S.; Taghipouret, M. The Analysis of Effect Colour Psychology on Environmental Graphic in Childeren Ward at Medical Centers. *Psychology and Behavioral Sciences*, 2016, 5(2), 51-61.
- [13] Taghipour, M.; Moosavi, A. A look at Gas Turbine Vibration Condition Monitoring in Region 3 of Gas Transmission Operation. *Journal of Environmental Science, Computer Science and Engineering & Technology*, 2020, 9(3), 423-432.
- [14] Habibi, M.H.; Taghipour, M.; Asadifard, E. The Relationship Between Social Responsibility and Brand Of Companies Listed on the Tehran Stock Exchange. *Journal Of Economics and Administrative Science*, 2020, 3(1), 15-20.
- [15] Taghvae, Y.M.; Taghipour, M; A.J.; Habibi, M.A. The Impact of Intellectual Capital on Organizational Entrepreneurship (Case Study: Mazandaran Science

- and Technology Park). *Journal of Modern Thoughts in Education*, 2020, 15(3), 44-58.
- [16] Azarian. R.; Gholamreza, T.F.G.; Habibi, M.A.; Taghipour, M. The Effect of Implementing Total Quality Management on Job Satisfaction (Including Case-Study). *Management*, 2020, 3(5), 1-15.
- [17] Ghadamzan, J.A.; Habibi, M.H.; Taghipour, M.; Fathi, V.K.; Moshtaghi, S. Explain the Relationship Between Intellectual Capital, Organizational Learning and Employee Performance of Parsian Bank Branches in Gilan province. *Educational Administration Research Quarterly*, 2020, 10(2), 127-142.
- [18] Tarverdizadeh, H.; Taghipour, M.; Nezamivad, S. Predicting students' academic achievement based on emotional intelligence, personality and demographic characteristics, attitudes toward education and career prospects through the mediation of academic resilience. *Scientific Journal of Education Research*, 2021, 16(65), 171-186.
- [19] Ghaed, A.H.M.; Sohrabi, A.F.; Taghipour, M. Effectiveness of Self-control and Aggression Reduction Skill Training of Male Juvenile Delinquents Correction and Rehabilitation Center (Including Case-Study). *Health Research*, 2020, 4(3), 26-39.



© 2022 by the author(s); licensee International Technology and Science Publications (ITS), this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (<http://creativecommons.org/licenses/by/4.0/>)