

Formulating the Academic Buoyancy Model Based on Life Expectancy with the Mediating Role of Happiness in Students

Hassan Shadkam¹, Firozeh Zanganeh Motlagh^{2*}, Abolghasem Yaghoobi³, Zabih Pirani², Hossein Mohagheghi⁴

1. PhD student, Department of Educational Psychology, Arak Branch, Islamic Azad University, Arak, Iran.
2. Assistant Professor, Department of Psychology, Arak Branch, Islamic Azad University, Arak, Iran.
3. Professor, Department of Psychology, Faculty of Economics and Social Sciences, University of Bu-Ali Sina, Hamadan, Iran.
4. Associate Professor, Department of Psychology, Faculty of Economics and Social Sciences, Bu- Ali Sina University, Hamadan, Iran

Article history:

Received date: 2022/06/13

Review date: 2022/07/14

Accepted date: 2022/08/29

Keywords:

Academic Buoyancy, Happiness, Life Expectancy

Purpose: Academic buoyancy is one of the effective variables in the academic field and learning environment of students. Therefore, the objective of this research was to design the academic buoyancy model based on life expectancy with the mediation of happiness in female high school students in Hamedan city.

Methodology: The methodology of this research was correlational and SEM. The statistical population included all female students of the second secondary school in Hamedan city, and the statistical sample was selected based on the number of items used in the questionnaires as 370 people with the multi-stage cluster sampling method. Academic buoyancy (Hosseinchari and Dehghanizadeh, 2013), life expectancy (Hallajian, 2019), and Oxford happiness (Argyl et al., 1989) scales were used to collect data. For data analysis, a structural equation test was used in the PLS-3 software environment.

Findings: The results showed that life expectancy has a direct and positive effect on academic buoyancy ($\beta = 0.36$, $p < 0.01$) and happiness ($\beta = 0.46$, $p < 0.01$). Happiness also has a direct and significant effect on academic buoyancy ($\beta = 0.34$, $p < 0.01$). Also, happiness has a significant mediating role in the relationship between life expectancy and academic buoyancy ($\beta = 0.16$, $p < 0.01$).

Conclusion: since life expectancy creates a more positive atmosphere, it can be effective in increasing the feeling of happiness, and happiness creates buoyancy in the academic environment, followed by an increase in academic buoyancy.

Please cite this article as: Shadkam H, Zanganeh F, Yaghoobi A, Pirani Z, Mohagheghi H. (2022). Formulating the Academic Buoyancy Model Based on Life Expectancy with the Mediating Role of Happiness in Students, *Iranian Journal of Educational Sociology*. 5(3): 83-94.

* Corresponding Author Email: f-zanganeh@iau-arak.ac.ir

1. Introduction

In recent years, the approach of positive psychology has attracted the attention of psychologists concerning human talents and capabilities. According to the holistic view and positive psychology, the factors that make people adapt more and more to the contradictions, needs, challenges, and threats of life are the most fundamental investigated structures by the positive approach (Hart, Blincow, and Thomas, 2018). Academic buoyancy is one of the effective capabilities in education, which is referred to as a strategy for dealing with academic issues and challenges. Academic buoyancy is defined as the ability of students to successfully deal with academic obstacles and challenges that are common in their academic life. In addition, they refer to responding positively, constructively, and adaptively to all kinds of challenges and obstacles that are experienced in the ongoing field of education (Putwain, Wood & Pekrun, 2020).

Academic buoyancy is a positive, constructive, and adaptive response that includes all kinds of challenges and obstacles that occur in everyday educational situations. Furthermore, academic buoyancy is called the dynamic process of adaptation and positive adaptation to bitter and unfortunate experiences in life (Luthar, Ceeichetti, and Becker, 2019). According to Martin (2014), academic buoyancy is a construct that arose from positive psychology and refers to the fact that it can enable students to successfully deal with academic obstacles and challenges such as Poor grades, exam pressure, hard and difficult assignments that occur during study and school (Martin & Marsh, 2009). In the challenge theory, buoyancy acts as a potential factor that increases adaptation. In this model, too little stress does not create enough challenge and too much stress conveys helplessness to the person, which can lead to maladaptive behavior. Although moderate levels of stress make a person face a challenge, in any case, if a person overcomes this stress, his/her sufficiency is strengthened. If the challenge is completed, the person prepares for the next challenge. If the efforts to face the challenge do not end successfully, the person will become increasingly vulnerable to the risk. Therefore, the optimal level of stress occurs when the adaptation is strengthened as much as the person faces the challenge (Yavari, Dartaj, and Asadzadeh, 2016). Research (Colmar, Lime, Connor & Martin, 2019; Feldman & Kubota, 2015; Walton & Cohen 2011 and Sadughi and Hessampour, 2018) confirmed the importance of positive variables such as resilience, life expectancy, and happiness on academic buoyancy and mental health of knowledge.

Based on various research (Lotar et al., 2019; Mariona & Aida, 2021), life expectancy is one of the effective variables in the educational environment. Life expectancy is a statistical index that shows the average life expectancy in a society and how many years each member of that society can live, and the life expectancy of women is about 4.5 years more than men in all societies. Hope for a healthy life does not mean disease, but a life without functional limitations (Baran Oladi, Emetadi, Karami, 2013). In other words, hope for life refers to a person's emotions and moods and includes the attraction and tension of a good outcome, the feeling of the importance of hope, trust, or uncertainty. This dimension influences the whole process of hope and includes different emotions from painfulness to relaxation (Louria DB, 2005). Hope is an emotion that originates from biological, psychological, and social sources and is a positive psychological stimulus in which people have a feeling of passage to reach their goals. Hope can increase energy to perform actions, these actions can be physiological, psychological, or cultural (Dobis, Stephens, Skidmore, Goetzd, 2020). Life expectancy grows during different years and along with acquiring the skills of each period, a person can manifest the structure of life expectancy in him/herself (Lathan, 2020). Teenagers can develop more in the design of life expectancy passages and adapt in a social context by considering the demands of others such as parents, teachers, and peers, and achieve success and buoyancy by acquiring intuitive thinking skills and the ability to predict daily affairs. It helps them in the academic environment (Ghanbarian, Parmoz, and Rajabzadeh, 2015).

People with higher academic buoyancy have higher academic motivation and higher life expectancy for their academic future (Martin, Colmar, Davey & Marsh, 2010). Although academic buoyancy is related to academic progress and academic success, some studies show that low life expectancy can be related to low academic performance and negatively affect academic buoyancy (Shek & Li, 2016). Furthermore, hopeless

students have a negative view of school and experience numerous academic failures, despite having normal intelligence (Lopez, Rose, Robinson, Marques & Pais-Ribeiro, 2009). Hopeless students develop negative emotions and their buoyancy in the academic environment is low (Feldman and Kubata, 2015). Having life expectancy in life can reduce adaptation problems. More hopeful people are more satisfied with life and cope better with environmental challenges. Furthermore, life expectancy can be considered a positive factor in the learning environment (Kwon, Birrueta, Faust & Brown, 2015).

Another antecedent of academic buoyancy is happiness. Happiness is a state of evaluation and satisfaction with life in such a way that positive emotions are abundant in this life, negative emotions are few or non-existent, and a person is satisfied with his life. . Happiness has an important effect on people's success. Happy people have an optimistic attitude toward the events around them and try to make optimal use of these events instead of taking a negative stance towards the events around them. Also, happy people with healthy personalities will be responsible people and good citizens (Qadampour and Beyranvand, 2016).

It was shown in the conducted research at the University of Texas that a good mood (emotions and a balanced personality) significantly increases the level of life expectancy in a person, and as a result, the person can better overcome the obstacles that cause anxiety in life. Therefore, it can be seen that happiness has a direct relationship with the personality and spirit of people. A person who has a happy spirit puts positivity at the forefront of his daily activities and thinks of solutions for small and big problems better than others. In other words, happiness occurs when a person feels more satisfied with him/herself and his/her surroundings (Viskremi and Youssef Vand, 2017).

Moreover, it seems that happiness acts as a mediating variable in the relationship between life expectancy and academic vitality, and in other words, life expectancy helps the students' lives by creating happiness to improve their academic vitality and they help to cope with common challenges during education. In general, people who have a happiness structure will have a more optimistic view during life and face stressful issues (Buss, 2000; Schueller, Seligman, 2018; Yang, Zhang & Kou, 2016). The research of Lyubomirsky, King & Diener (2016) showed that happiness is related to a positive outlook on life, sociability, creativity, psychological well-being, self-efficacy, and success in the main areas of life such as work and education. Happiness, as a basic indicator in human daily life, affects people's mental health and originates from the integration of mental and psychological abilities. Happiness is affected by various factors such as family life, physical health, coping strategies, and self-efficacy level (Easterlin, 2006; Clore, Gaynor, 2012). In addition, life expectancy also has positive results on people's mental health and can be considered an effective factor in increasing people's happiness. For this reason, it is expected that happiness has a mediating role in the relationship between life expectancy and academic vitality. Based on the conducted studies by Piqueras et al., 2011; Post, 2005; Mirzaian and Hassanzadeh, 2013, shows that buoyancy is very important for people in society, especially students as a future-making force in society and different psychologists and researchers are looking for various solutions to increase the level of happiness among students. The level of happiness and satisfaction of each person in life has a direct relationship with people's attitude towards life, and this means that the more people are satisfied with the events around them, the happier they are, and if this feeling of satisfaction is less. To the same extent, they have less satisfaction and happiness (Qadmpour and Beyranvand, 2016). Engaging students in the creation and believing them as energetic and creative forces can bring many benefits including increasing their buoyancy (Thelwell, Lane & Weston, 2007). The results of various researches have also investigated the effects of various antecedents in academic buoyancy, which are briefly mentioned in some of these researches including: the role of the quality of school life and basic psychological needs in academic buoyancy (Manbari and Abdullahi, 1400); The mediating role of academic self-efficacy in the relationship between optimism and academic buoyancy (Zahed Bablan and Karimianpour, 2019); happiness and positive behaviors in the field of education (Pikoras et al., 2011; Jafari, Nadi and Manshai, 1400); the relationship between life expectancy and happiness (Fernia, Bagshahi and Zarei, 2015; Mohadi, Movahedi and Farhadi, 2014; Yang, Zhang and Kuo, 2016); life expectancy and academic buoyancy (Fritzsche & Parrish, 2005; Sabaghian and Abolghasemi, 2013; Yaori, Dartaj and Asadzadeh, 2016); Academic

motivation and its relationship with academic progress and academic buoyancy (Martin and Marsh, 2008, 2019; Martin, 2014; Kolmar, Lim, Connor, Martin, 2019; Potovin et al., 2020; Manbari and Abdullahi, 1400). As the researches show, having academic buoyancy as well as trying to achieve success requires having a happy spirit and life expectancy, which shows the importance of the current research variables in the field of education. Nevertheless, there has been no research in Iran about the relationship between positive psychological components such as life expectancy and happiness with students' academic vitality, and the lack of research in this field of research is felt in society. Identifying the antecedents and influencing factors on academic vitality and students' capacity in dealing with educational challenges and obstacles, especially in adolescence, seems necessary. In addition, this research is important because identifying the antecedents of academic buoyancy can be useful for teachers and counselors in providing different programs to increase the academic buoyancy of students. Considering the importance of academic buoyancy for students as well as happiness and life expectancy and the relationship between these variables, this research seeks to achieve and design the model of academic buoyancy based on life expectancy with the mediating role of happiness, so the main question of the research is this. Whether the model of the relationship between life expectancy and academic buoyancy with the mediating role of happiness suitable?

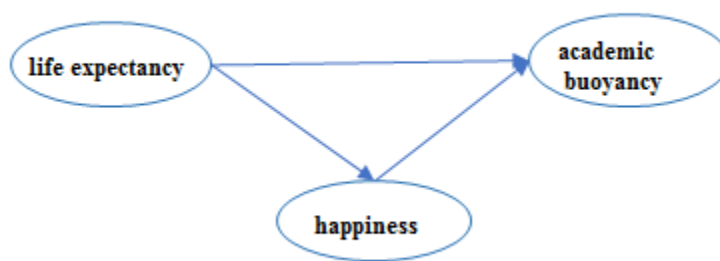


Fig 1: Academic buoyancy model based on life expectancy and happiness

2. Methodology

This research is applied based on its objective and quantitative based on implementation. The research method is correlational with structural equation modeling (SEM), which has investigated the relationship between life expectancy and academic buoyancy with the mediation of happiness in students. The statistical population was 9986 female students of the second secondary school in Hamedan city out of which 370 were selected as a statistical sample by cluster sampling method, respecting the composition ratio of schools in different urban areas. According to the type of research method and the minimum number of research items in the Q method, the size of the statistical sample is considered five times more than the items of the questionnaire.

In this research, the following tools were used to collect data.

Academic Buoyancy Questionnaire (ABQ): This scale was created by Hossein-Chari and Dehghanizadeh (2013) based on the academic buoyancy scale of Martin and Marsh (2006) and has 9 items. The scoring of the scale is based on a 5-point Likert scale, from completely disagree (1) to fully agree (5). The reliability of the scale was investigated by Hosseinchari and Dehghanizadeh (2012) and Cronbach's alpha coefficient was 0.80 and the retest coefficient was 0.73, which indicates that the test has adequate reliability. Furthermore, the internal validity of the scale showed that the correlation range of the items with the total score was between 0.51 and 0.68. The principal component analysis was used to check the factor structure (structural validity) of the questionnaire, and the results showed that the items had a factor loading above 0.4, and in total 9 items explained 37% of the variance of the buoyancy construct. In this research, internal consistency was obtained at 0.86 using Cronbach's alpha method.

Life expectancy questionnaire: This questionnaire was prepared by Halajian (2010). The life expectancy questionnaire consists of 33 items on a three-point Likert scale. The minimum score is 33 and the maximum score on this scale is 99. The higher the score, the higher the life expectancy. The scoring method of the questionnaire is such that the never option is given a score of 3, almost a score of 2, and complete a score of 1. The reliability of the scale using Cronbach's alpha coefficient was 0.89, 0.94, and 0.92 for the entire sample, female subjects, and male subjects, respectively. The reliability was obtained by the test-retest method of 0.92 and the content validity was confirmed by the experts (Halajian, 2010). In this research, internal consistency was obtained at 0.70 using Cronbach's alpha method.

Oxford Happiness Questionnaire (OHQ): This tool was created by Argyl, Martin & Crossland (1989) and contains 29 questions, the answers of which are on a 4-point scale from 0 (not at all) to 3 (very much), and the sum of the scores of 29 items forms the total score. The validity and reliability of the questionnaire have been confirmed by different researchers. Among them, Abedi et al. (2015) reported an alpha coefficient of 0.93 and a test-retest correlation coefficient of 0.64.

Argyll et al. (1989) obtained an alpha coefficient of 90% by researching 347 subjects. Moreover, in a cross-cultural survey in England, America, Australia, and Canada, Ferans reported alpha coefficients of 0.89, 0.90, 0.89, and 0.89, respectively. To check the validity of this questionnaire, Argyl et al. (1989) asked students to rate their friends based on a ten-point scale of happiness, and the correlation between the ratings and the Oxford Happiness Questionnaire was 43%. In their research, Farokhi and Sabzi (2013) also found the reliability coefficient of this questionnaire to be 0.94, and its validity by confirmatory factor analysis confirmed the construct validity results. In this research, the internal consistency coefficient was obtained at 0.94 using Cronbach's alpha method.

To analyze the data, descriptive indices such as mean and standard deviation were used, and a structural equation analysis method was used in the form of Spss-22 and PLS-3 software.

3. Findings

The participants of this research were 370 female students of the second secondary school in Hamedan city with a mean and standard deviation of age (of 38.16 ± 2.71). Structural equation analysis was used to analyze the data. First, the mean and standard deviation of the variables were checked. The skewness and kurtosis statistics of the variables were also checked to check the normality of the distribution, and the results are presented in Table 1 along with the mean and standard deviation of the variables.

Table 1. the results of mean, standard deviation, skewness, and kurtosis

Indexes	Mean	St. dev	skewness	kurtosis
life expectancy	31.36	6.63	0.39	0.06
happiness	50.87	16.41	0.03	-0.39
academic buoyancy	32.78	6.97	-0.90	0.04

In checking the normality of the distribution of the variables, based on the results of Table 1, the range of skewness and kurtosis between the variables is in the range of +1 and -1, which shows that the research variables have a normal distribution. Next, the correlation between the variables was calculated, the results of which are presented in Table 2.

Table 2. Correlation matrix of research variables

Variable	1	2	3
1- life expectancy	-		
2 -happiness	0.43***	-	
3- academic buoyancy	0.51**	0.48**	-

0.01 **P<.05 *P<

Table 2 shows the correlation matrix between the variables. As can be seen in the table, there is a significant correlation between all variables. Durbin-Watson test was used to check the independence of the errors, and the results show that there is no correlation between the errors ($D.W=1.72$, the range between 1.5 and 2.5 is acceptable). Variance Inflation Factor (VIF) and Tolerance (Tolerance) were used to check the multiple collinearity between predictor variables. The results showed ($VIF=1.2$, $Tolerance=0.81$) that there is non-collinearity between the variables (VIF range is less than 3 and a tolerance higher than 0.1 is proper). In this research, partial least square modeling (PLS-SEM) was used for data processing. The proposed conceptual model of this research was such that the exogenous variable of life expectancy directly affects academic buoyancy through the mediation of happiness. The relationships of the variables are examined in the form of a model and shown in graphs 2 and 3.

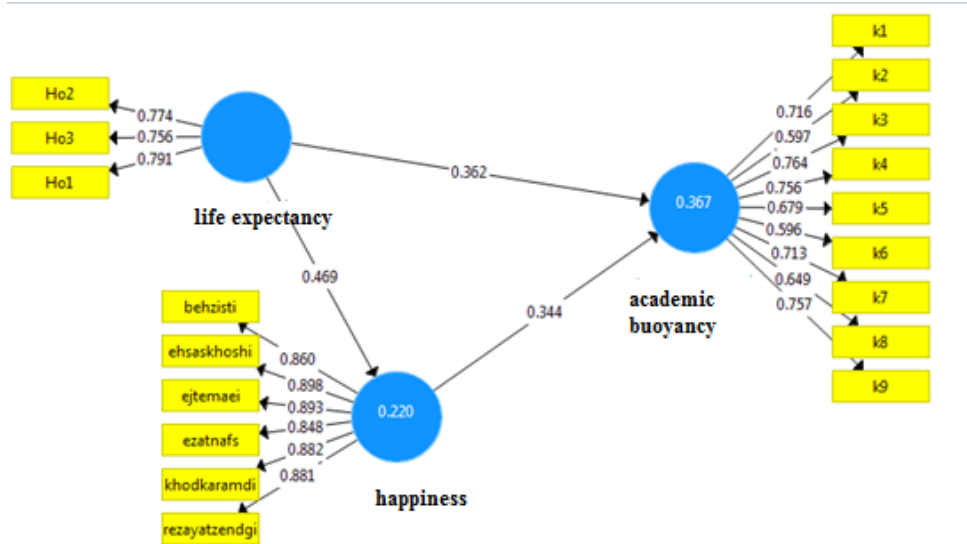


Fig. 2: Life expectancy and academic buoyancy relationship model with the mediating role of happiness in the standard mode

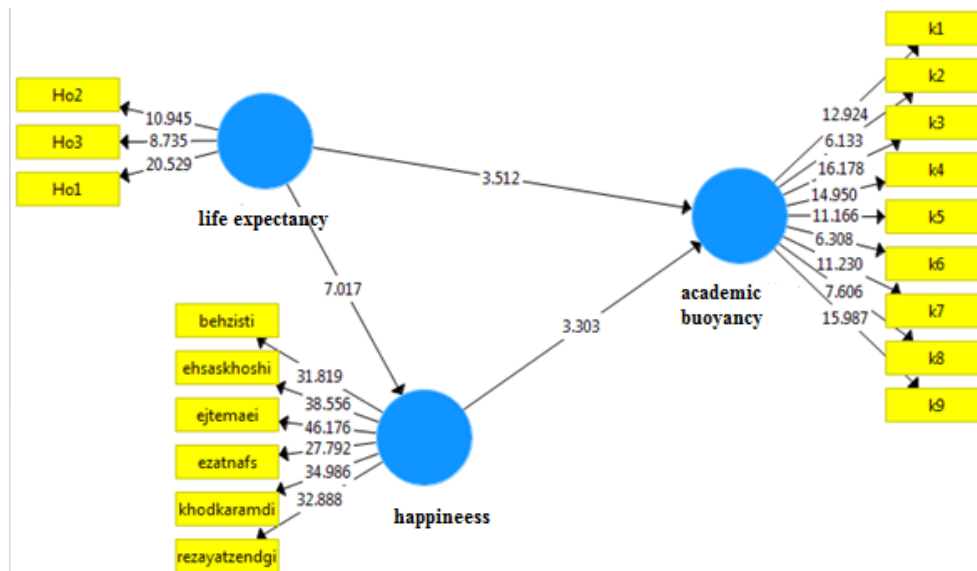


Fig. 3: The model of relationship between life expectancy and academic buoyancy with the mediating role of happiness in a sig. level

The indexes of the goodness of fit (GOF), validity check, or redundancy (Q2), and coefficient of determination (R2) are used to examine the quality of the model. Then, the fit indexes of the model were examined whose results are shown in Table 3.

Table 3. indexes of checking the model quality

Model quality	Determination coefficient (R2)	Redundancy coefficient (Q2)	Goodness of fit (QOF)
Meaning of life	-	0.191	0.35
happiness	0.220	0.358	
academic buoyancy	0.367	0.671	

The main criterion to evaluate the internal criteria of the path model is the coefficient of determination. This index shows how many percent of the changes in the endogenous variable are made by the exogenous variable. Table 3 shows that 36% of the changes in the academic buoyancy variable and 22% of the changes in the happiness variable are predicted by the independent research variables. Redundancy index is used to check the ability of structural model to predict by ignoring method. When the value of this index is greater than zero, the observed values are well reconstructed and the model has the ability to predict. In this research, this index is equal to 0.671 for the academic buoyancy variable, 0.358 for the happiness variable, and 0.191 for the life expectancy variable. Furthermore, the most important index of model fit in partial least squares technique is the goodness of fit index. Wetzels, Odekerken-Schröder & Van Oppen (2009) have introduced three values of 0.01, 0.25, and 0.36 as weak, medium, and strong values for GOF. This index can be calculated using the geometric mean of the index (R2) and the mean of redundancy indices (Hair, Hult, Ringle & Sarstedt, 2017). Considering that the GOF value obtained for the current model is 0.35, the model used in this research has good goodness of fit. Based on this, it can be said that the developed model of the relationship between life expectancy and academic buoyancy with the mediation of happiness in female students has a favorable fit. Then, all the effects related to all the different routes are taken into consideration in the model and the standard coefficients of the routes along with their significance levels are presented in Table 4.

Table 4. Coefficients of the explanatory model of academic buoyancy based on life expectancy, with the mediation of happiness

Direct path	Path coefficient	T-Value	P-Value
life expectancy \leftarrow academic buoyancy	0.362	3.512	0.001
life expectancy \leftarrow happiness	0.469	7.017	0.001
happiness \leftarrow academic buoyancy	0.344	3.303	0.001
Indirect path	Coefficient	T-Value	P-Value
life expectancy \leftarrow happiness \leftarrow academic buoyancy	0.161	2.817	0.005

The analysis of the obtained data from the standard coefficients of the model in Table 4 shows that the effect of life expectancy on academic buoyancy is significant ($\beta = 0.36$, $P < 0.01$). The effect of life expectancy on happiness ($\beta = 0.46$, $P < 0.01$) is also significant. The results show that the effect of happiness on academic buoyancy is significant ($\beta = 0.34$, $P < 0.01$). Furthermore, the results show that the indirect effect of the life expectancy variable on academic buoyancy through happiness ($\beta = 0.16$, $P < 0.01$) is also significant.

4. Conclusion

The objective of this research was to study the relationship between life expectancy and academic buoyancy with the mediation of happiness in middle school female students. The results of studying the model showed that life expectancy can predict academic buoyancy in students through the mediation of happiness. This finding is consistent with the results of Dubis et al. (2020), Latan (2020), Martin and Marsh (2009), Potvin et al. (2020), Sadughi and Hessampour (2018), and Ghadampour and Beyranvand (2016).

According to Dubis et al.'s (2020) view, in the new movement of positive psychology, life expectancy has been specifically attended to. Those who believe in life expectancy, believe that in generating life expectancy thoughts, creating effective ways to achieve the goal, maintaining thoughts with the will to make sufficient motivation in pursuing the goal and removing the obstacles that appear to have a good performance, as Seligman considers life expectancy to be a positive way where people use to interpret their successes and failures. Positive thinking people believe that they can change failure and succeed next time. Not having life expectancy provides the basis for the emergence and manifestation of negative thoughts in the person's mind and reduces the motivation of effort and activity and buoyancy in him. In general, life expectancy and avoiding negative thoughts are suitable and effective strategies for coping with mental pressure and increasing happiness. Life expectancy toward the future is a kind of positive attitude and optimism toward the present and future conditions (Clever, Gaynor, 2012). A student who depends on his academic success and improvement of life expectancy work conditions strives to achieve those conditions with motivation and life expectancy, the thought of reaching the desired situation and getting rid of some current problems makes the student happy. Moreover, a good mood, effective processing of information, and more self-esteem are the product of positive thinking and it creates the feeling in a person that he has control over the surrounding environment (Shuller and Seligman, 2018). According to Bass (2000), happiness and the feeling of mental well-being are the words that are used in today's psychology to express this state. Happiness is the result of people's evaluation of themselves and their lives which is the common goal of people and everyone strives to achieve it. A student who is not optimistic about his academic future and his life in general, cannot succeed well and will not have a positive spirit. According to Martin and Marsh (2019), happiness and buoyancy are related and closely related variables, people who are happy and satisfied, work with energy and motivation in various fields of work and study and are less likely to be lazy and lazy. This happiness is largely affected by academic satisfaction for students who have high happiness. In addition, academic satisfaction causes more effort and interest in doing academic assignments. Therefore, happiness is one of the predictor variables of students' academic buoyancy. The results showed that life expectancy can predict students' academic buoyancy. This finding is aligned with the results of Fritzche and Parish (2005), Feldman and Kubata (2015), Baran Oladi et al. (2012), Yavari et al. (2017), and Sabaghian and Abolghasemi (2011)'s research.

It can be said in explaining this finding, according to the view of Fritzche and Parish (2005) that people who have a lower life expectancy and self-efficacy, feel that they are helpless and unable to exercise control over life events, and when they face obstacles, if their initial efforts in dealing with If it is inconclusive with problems, they quickly cut life expectancy and feel less cheerful during education. The results of Baran Oladi et al.'s research (2013) showed that the higher the life expectancy of students, the higher their academic progress and motivation. Students who have a higher level of life expectancy focus more on their goals and have more happiness and academic satisfaction. These people have perseverance, a cheerful spirit, and serious determination in doing activities because they believe that effort leads to progress and satisfaction. Therefore, the increase in life expectancy in students increases their motivation to progress and vitality in students. Therefore, students' beliefs and life expectancies about their abilities affect the performance of the main educational activities, mental health and reducing or increasing depression, academic stress, and the level of interest in intellectual activities and academic achievements (Feldman and Kubata, 2015). Life expectancy students see a bright future in front of them, that's why if they fail, they will resume their efforts. Thus, they will win over the challenges ahead. Therefore, it can be said that students with life expectancy and self-efficacy have a more cheerful spirit and suffer less from psychological problems and academic inconsistencies. Life

expectancy and the future make the student believe that he/she can control academic tensions. In other words, students with high academic self-efficacy are more ready for the future life expectancy and plan for it, take on challenges and after reaching a state of balance, they find more compatibility with education and generally have high academic buoyancy. The results showed that life expectancy can predict students' happiness. This finding is consistent with the results of Mariona and Aida (2021), Yang et al. (2016), Ghanbarian et al. (2015), Farnia et al. Based on the results of the present research, there is a significant relationship between life expectancy and happiness. Research in the field of positive psychology has shown that people with life expectancy and happiness have stronger social relationships with their friends, spouse, neighbors, and relatives. Life expectancy increases vitality, and well-being increases satisfaction with life and improves psychological well-being in people (Yang et al. 2016). Expectancy can increase positive emotions and reduce negative emotions, and therefore has a positive correlation with mental and physical health, which has a positive correlation with various scales such as mental health, positive mood, avoidance of stressful life events, vitality, and happiness in life affairs and problem-solving. In this regard, Farnia et al. (2015) showed that life expectancy increases happiness and reduces anxiety and depression in their research.

Another finding of the research showed that happiness can predict students' academic buoyancy. These findings are consistent with the results of Kolmar et al. (2019), Talul et al. (2007), Pikuras et al. (2011), Zahed Babelan and Karimianpour (2020), and Veiskarami and Yousefvand (2018). Based on Pikoras et al. (2011)'s view and the results of Talul, Lin, and Weston's (2007) research, students' ability, including happiness, positive mood, and self-satisfaction to adjust helplessness and reduce stress, will affect their academic success and motivation. In other words, happiness in people causes efficiency and vitality, thinking power, and educational progress and is associated with quality of life. On the other hand, depression reduces reasoning power, efficiency, and vitality during education. The research results of Pikuras et al. (2011) and Walton and Cohen (2011) showed that there is a positive and significant relationship between the mental well-being and happiness of students, and students who have higher well-being and happiness have less social anxiety and stress in school and doing homework. On the other hand, people with low happiness consider normal daily events and exam situations to be stressful and have less vitality, and face many problems when faced with educational stressors. Therefore, it seems that to increase happiness in students, various programs such as increasing sports activities and providing a lively atmosphere in the school to increase the spirit of vitality in them. In general, according to the findings, it can be said that life expectancy increases the motivation and positive feelings in people, that this motivation and the positive mental atmosphere is effective in creating happiness, on the other hand, happiness reduces anxiety, depression, and related diseases. There is a significant relationship between academic stress, physical health, and participation in group activities (Post, 2005). Hence, increasing happiness can improve well-being and buoyancy. Based on this, happiness can play an intermediary role in the relationship between life expectancy and academic vitality.

The limitations of this research include the self-reporting of the tool and the limitation of interaction with sample people. Another limitation was the psychological condition of people due to quarantine, which can affect the research variables. It is suggested that in repeating the current research, the variables affecting buoyancy, such as self-efficacy and internal motivation, should be investigated as mediating variables. According to the results, it is suggested to hold various workshops to discuss the role of life expectancy and happiness and the importance of these structures in the academic and living environment.

Acknowledgment

Finally, all the school heads, teachers, counselors, and students that helped us in this research are gratefully thanked.

References

- Abedi, Mohammad Reza, Mirshah Jafari, Seyed Ibrahim, Liaqtdar, Mohammad Javad. (2015). Normation of Oxford happiness questionnaire in Isfahan university students. *Consulting Research Quarterly*, 59, 76-96.
- Argyle, M., Martin, M., & Crossland, J. (1989). Happiness as a function of personality and social encounters. In J. P. Forgas & J. M. Innes (Eds.), *Recent advances in social psychology: An international perspective* (pp.189-203). North-Holland: Elsevier.
- Baran Oladi, Sadiq; Etamadi, Ahmed and Karami, Abolfazl. (2011). The effectiveness of hope therapy on the motivation of second grade male students of work and knowledge in Baharestan city. *Knowledge and Research in Applied Psychology*, 13(3), 3-9.
- Buss, D. M. (2000). The evolution of happiness. *American Psychologist*, 55 (1), 15-23.
- Clore, J.L., Gaynor, S.T. (2012). Cognitive modification versus therapeutic support for internalizing distress and positive thinking: a randomized technique evaluation trial. *Cognitive therapy and research*, 36(1), pp58-71.
- Colmar, S., Lime, G.A., Connor, J., & Martin, A.J. (2019). Exploring the relationships between academic buoyancy, academic self-concept, and academic performance: a study of mathematics and reading among primary school students, *Educational Psychology*, DOI: 10.1080/01443410.2019.1617409
- Dobis, E.A., Stephens, H.M., Skidmore, M., Goetz, S.J. (2020). Explaining the spatial variation in American life expectancy. *Elsevier*, 264(8), 56-74.
- Easterlin, R. A. (2006). Life cycle happiness and its sources: Intersections of psychology, economics, and demography. *Journal of Economic Psychology*, 27(4): 463-482.
- Feldman, D. B., & Kubota, M. (2015). Hope, self-efficacy, optimism, and academic achievement: Distinguishing constructs and levels of specificity in predicting college grade-point average. *Learning and Individual Differences*, 37, 210-216.
- Fernia, Farhanaz; Bagshahi, Nomia; and Zarei, Hassan. (2015). Investigating the effectiveness of group hope therapy on the happiness of hemodialysis patients. *Urmia Nursing and Midwifery Faculty Journal*, 14(6), 543-550.
- Fritzsche, B. A., & Parrish, T. J. (2005). Theories and research on job satisfaction. *Career development and counseling: Putting theory and research to work*, 180-202.
- Ghanbarian, Mina; Premuz, Mahnaz; Rajabzadeh, Zainab. (2015). The relationship between happiness and life expectancy in students of Behbahan Faculty of Medical Sciences. *Mashhad University of Medical Sciences*, 18(7), 556-553.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 2nd Ed., Sage: Thousand Oaks.
- Halajian, Zahra. (1389). *Life Expectancy Questionnaire*, Yarpoya Testing Institute.
- Hart, A., Blincow, D., & Thomas, H. (2018). *Resilient therapy: Working with children and families*. Routledge.
- Hossein Chari, Massoud; Dehghani Zadeh, Mohammad Hossein. (2011). Academic vitality and perception of family communication pattern, mediating role of self-efficacy. *Journal of Education and Learning Studies*. 4(2), 22-47.
- Jafari, Alireza; Nadi, Mohammad Ali and Manshai, Gholamreza. (1400). Developing and validating the self-directed learning training package and determining its effectiveness on academic enthusiasm and academic vitality in students. *Research Quarterly in Curriculum Planning*, 18(68), 38-51.
- Kadampour, Ezzatullah; And Biranvand, Kabri. (2016). The effect of meaning therapy education on students' happiness and academic vitality. *Cognitive Science News*, 19(4), 43-56.

- Kwon, P., Birrueta, M., Faust, E., & Brown, E. R. (2015). The Role of Hope in Preventive Interventions. *Social and Personality Psychology Compass*, 9(12), 696-704.
- Lathan, L. (2020). Inequalities in life expectancy: An analysis of 201 countries, 1950–2015. *Social Science & Medicine*. Volume 253, May 2020, 112964.
- Lopez, S. J., Rose, S., Robinson, C., Marques, S. C., & Pais-Ribeiro, J. L. (2009). Measuring and promoting hope in school children. In R. Gilman, E. S. Huebner, & M. J. Furlong (Eds.), *Handbook of positive psychology in the schools* (pp. 37–51). Mahwah, NJ: Lawrence Erlbaum.
- Louria, D.B. (2005) *Extraordinary longevity: Individual and societal issues*. *J Am Geriatr Soc* 53 (9, Suppl.), S317–S319.
- Luthar, S. S., Cicchetti, D., & Becker, B. (2019). The construct of resilience: A critical evaluation and guidelines for future work. *Child development*, 71(3), 543-562.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological bulletin*, 131(6), 803.
- Manbari, Zahra and Abdullahi, Fardin. (1400). Investigating the relationship between the quality of school life and academic vitality and satisfaction of basic psychological needs in secondary school female students, the 7th International Conference on Knowledge and Technology of Educational Sciences, Social Studies and Psychology of Iran, Tehran.
- Mariona, L., Aïda, S. (2021). Happiness and life expectancy by main occupational position among older workers: Who will live longer and happy? *Population Health*, 13(4), 237-250.
- Martin, A. J. (2014). Academic buoyancy and academic outcomes: Towards a further understanding of students with attention-deficit/hyperactivity disorder (ADHD), students without ADHD, and academic buoyancy itself. *British journal of educational psychology*, 84(1), 86-107.
- Martin, A. J., & Marsh, H. W. (2009). Academic buoyancy: Towards an understanding of students' everyday academic resilience. *Journal of School Psychology*, 46(1), 53-83.
- Martin, A. J., & Marsh, H.W. (2008). Academic buoyancy: Towards an understanding of students' everyday academic resilience. *Journal of School Psychology*, 46(1), 53–83.
- Martin, A. J., & Marsh, H.W. (2019). Investigating the reciprocal relations between academic buoyancy and academic adversity: Evidence for the protective role of academic buoyanc in reducing academic adversity over time. *International Journal of Behavioral Development*. Advance online publication. doi:10.1177/0165025419885027
- Martin, A. J., Colmar, S. H., Davey, L. A., & Marsh, H. W. (2010). Longitudinal modelling of academic buoyancy and motivation: Do the 5Cs hold up over time? *British Journal of Educational Psychology*, 80(3), 473-496.
- Mirzaian, Bahram; Hassanzadeh, Ramadan; and Moslehi Joybari, Mitra. (2013). The contribution of hope for the future of female teachers in predicting the happiness of female students. *Women and Society (Sociology of Women)*, (17), 121-138.
- Movahdi, Masoumeh; Mohadi, Yazdan and Farhadi, Ali. (2014). The effect of therapeutic hope training on life expectancy and general health of cancer patients. *Sociological nursing and midwifery*, 25(76), 9-84.
- Piqueras, J. A., Kuhne, W., Vera-Villarroel, P., Van Straten, A., & Cuijpers, P. (2011). Happiness and health behaviours in Chilean college students: a cross-sectional survey. *BMC Public Health*, 11(1): 443.
- Post, S. G. (2005). Altruism, happiness, and health: It's good to be good. *International journal of behavioral medicine*, 12(2), 66-77.
- Putwain, D. W., Wood, P., & Pekrun, R. (2020). Achievement emotions and academic achievement: Reciprocal relations and the moderating influence of academic buoyancy. *Journal of Educational Psychology*, 8(24), 125-137.

- Sabbaghian, Zahra; Abolghasemi, Mahmoud (2010). Examining the relationship between hope and academic success of students. *Higher Education Research and Planning Quarterly*, 60, 1-16.
- Sadouqi, Majid., Hasampour, Fatemeh. (2018). The mediating role of happiness in the relationship between hope and academic self-efficacy with academic vitality. *Journal of Roish Psychology*, 8(9), 21-30.
- Schueller, S.M., Seligman, M.E. (2016). Optimism and pessimism. In K. S., Dobson, & D. J. A., Dozois (Eds.), *Risk factors in depression*. Oxford: Elsevier/academic press.
- Shek, D. T., & Li, X. (2016). Perceived school performance, life satisfaction, and hopelessness: a 4-year longitudinal study of adolescents in Hong Kong. *Social indicators research*, 126(2), 921-934.
- Thelwell, R. C., Lane, A. M., & Weston, N. J. (2007). Mood states, self-set goals, self-efficacy and performance in academic examinations. *Personality and Individual Differences*, 42(3), 573-583.
- Viskarmi, Hassan Ali; and Yusuf-Vand, Leila. (2017). Examining the role of academic vitality and happiness in predicting the creativity of Lorestan University of Medical Sciences students. *Research in medical science education*, 10 (2), 28-37.
- Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science*, 331(6023), 1447-1451.
- Wetzels, M., Odekerken-Schröder, G., & Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS quarterly*, 177-195.
- Yang, Y., Zhang, M., & Kou, Y. (2016). Self-compassion and life satisfaction: The mediating role of hope. *Personality and Individual Differences*, 98: 91-95.
- Yavari, Haniyeh; Dartaj, Fariborz; and Asadzadeh, Hassan. (2015). Investigating the effectiveness of Omid education on the academic vitality of secondary school students. *Research in educational systems*, 10(35), 21-33.
- Zahid Bablan, Adel, Karimianpour, Ghaffar. (2019). The relationship between academic optimism and academic vitality with the mediating role of students' academic self-efficacy. *Educational and School Studies Quarterly*, 22, 170-149.