

Relationship between Self-esteem, Happiness and Academic Performance among Children

Thiresyinie A/P Tamil Chelvam

Faculty of Human Ecology, Universiti Putra Malaysia

Email: thiresyinietamil@gmail.com

Nellie Ismail*

Faculty of Human Ecology, Universiti Putra Malaysia

Email: nellie3582@gmail.com

Received Date: 15 May 2020

Accepted Date: 03 July 2020

Available Online: 30 November 2020

ABSTRACT

This study aims to examine the relationship between self-esteem and happiness with academic performance among children. By using multi-stage cluster random sampling technique, 400 respondents were selected from two primary schools in Wilayah Persekutuan Kuala Lumpur. Self-Esteem Inventory and Subjective Happiness Scale were used to measure self-esteem and happiness respectively. Academic performance was measured by using the total percentage of marks obtained in the first test. The results showed that self-esteem and happiness have significant relationship with academic performance. Multiple regression analysis was used to analyze the relative strength of independent variables in predicting academic performance. The results indicated that self-esteem was found to have the strongest influence on children's academic performance. This study concludes that children's beliefs and feelings about themselves are a key determinant of academic success.

Keywords: *Self-esteem, subjective happiness, academic performance and children*

INTRODUCTION

Academic performance is one of the major goals of educational process which has been of greater concern to students, parents, educators and society. Academic performance has been defined by Chacko and Abraham (2017) as the knowledge attained and skill developed in the school subject, usually designed by test scores. According to Gill (2020), academic performance is the most important indicator for measuring an individual's progress, which helps the children to achieve their goal in life. Previous researchers claim that students with high level of academic performance have more employment opportunities (Tentama & Abdillah, 2019), whereas low academic performance may lead to depression (Baring, Lee & Maria, 2020). Academic performance is not only influenced by environmental factors such as socioeconomic status and parental factors (Poon, 2020), but also by internal factors such as beliefs and feelings that students have about themselves (Cvencek, Fryberg, Covarrubias & Meltzoff, 2018).

Self-esteem plays an important role in various life outcomes, including academic performance. According to Rosenberg (1965), self-esteem has been defined as an individual positive and negative

assessment about their own self. He also mentioned that high self-esteem consists of a person who values himself and considers himself worthy. Meanwhile, other researcher has claimed in a similar vein that self-esteem refers to the overall emotional evaluation and evaluative factors of the self that includes one's feelings of pride, encouragement and worthiness (Batool, 2019). Past study conducted by Jirdehi, Asgari, Tabari and Leyli (2018) have showed that high self-esteem was linked with high academic performance. Children with good or positive evaluation about themselves have better ability in handling teacher's feedback and the extraneous messages, and have better performance in school compared to children who have negative evaluation about themselves (Cvencek, O'Connor, Wishchnia & Meltzoff, 2015). On the other hand, children with negative evaluation about themselves has been associated with behavioural problems (Wells, Hunnikin, Ash & van Goozen, 2020), worst health illness, high criminal behavior, depression and poor academic performance (Orth, Robins, Meier & Conger, 2016).

Moreover, another factor that may influence children's academic performance is happiness. Happiness is also known as subjective well-being in psychology (Lyubomirsky, King & Diener, 2005; Sagiv, Roccas & Hazan, 2004; Sheldon & Lyubomirsky 2004). It has been defined as a combination of positive affect (Chacko & Abraham, 2017; Diener, 2000). Previous researchers believed that happiness play a vital role in children's motivation and well-being (Datu, King & Valdez, 2017; Oreopoulos, 2007; Soleimani & Tebyanian 2011). School children with low level of happiness might affect their life satisfaction, social skills, thinking skills, creativity, intelligence and academic performance (Al-Yasin, 2001). The vast majority of existing research on this topic were conducted among secondary and university students, and thus little is known about the relationship between self-esteem and happiness with academic performance among primary school children. Thus, this study was conducted to fill this gap in the literature.

LITERATURE REVIEW

Self-Esteem and Academic Performance

Self-esteem is a combination of a person's self-assessment of their competence and self-respect or sense of their own worth (Guidon, 2010; Mruk, 2013). It is a significant and powerful indicator of various outcomes such as academic performance. Numerous studies have attempted to explain the relationship between self-esteem and academic performance among children. For example, Colquhoun and Bourne (2012) have conducted a study on the relationship between self-esteem and academic performance among children. This study involved 120 children from two primary school in Jamaica. The findings revealed that there is a positive correlation between self-esteem and academic performance. They also found that self-esteem is the most influential factor that account for children's academic achievement.

In a different study, Rahmani (2011) examined the relationship between self-esteem and academic achievement among primary school children. A total of 200 children aged between 7 to 11 in Tabriz city were involved in the study. Self-esteem has been measured using Eysenck self-esteem questionnaire and the children's academic achievement was measured based on the children's average academic marks during their academic years. The results demonstrated that there was a significant positive relationship between self-esteem and academic achievement. The findings were consistent with the study by Hatamina (2016). Hatamina (2016) examined the relationship between self-esteem and academic achievement among high

school students in Kermanshah, Iran. The results showed that there was a positive and significant relationship between self-esteem and academic achievement.

In addition, Bahrami and Bahrami (2015) examined the connection between self-esteem and academic achievement. The study involved 54 students (8th grade) from high school in Iran. Self-esteem was measured using questionnaire on self-esteem by Rosenberg while academic achievement was measured using scores in Mathematics. The findings revealed that self-esteem scores have a connection with student's performance. In another study, Mohammed Yousef and Asma'a Abdel Fattah (2016) investigated the relationship between self-esteem and children's achievement in Science. A total of 260 children (grade 4 to 6) in four Arab school in Kuala Lumpur were selected for the study. The findings indicated that children's achievement was significantly predicted by self-esteem.

More recently, Zheng, Atherton, Trzesniewski and Robins (2020) conducted a study to examine the association between self-esteem and academic achievement from 5th to 11th grade students in California. Self-esteem were assessed using the Self-Description Questionnaire (Marsh et al., 2005). Academic achievement was measured using self-reported grades and standardized test scores from school records. The results revealed that students with high level of self-esteem tend to get better grades in academic.

Happiness and Academic Performance

Happiness is one of the vital subjective sides in human life that each one wishes to discover it. As indicated by Callaway (2009), happiness was conceptualized as a generally steady positive emotional characteristic that underscores life-fulfilment and subjective well-being and is halfway heritable. The happiness of children is appropriate to look into on the grounds that they can recognize and utilize feelings in complex social conditions (Schultz, Izard & Bear, 2004). Also, they comprehend that feelings, including satisfaction, can be experienced at the same time and they can express in any way to be happy like the grown-up adults (Denham 1998; Whitesell & Harter 1989).

Previous researchers found that happiness was significantly related to students' academic success (Tabbodi, Rahgozar, & Abadi, 2015). The study by Mohammadi (2015) examines the relationship between happiness and student's academic achievement. The study involved 144 elementary school students in Kangan. He found that there was a significant relationship between happiness and academic achievement. In a different study, Lo'pez-Pe'rez and Fern'andez-Castilla (2017) investigated on children's conception of happiness and its relation with their academic performance. The study involved 2017 children from two different public schools in the city of Spain. The findings showed a positive significant relationship between happiness and academic performance among children.

RESEARCH METHODOLOGY

Research Design and Sampling

Quantitative survey methodology was applied to gather information on the relationship between self-esteem and subjective happiness with academic performance among children. A set of bi-language survey questionnaire (English-Malay) has been used for data collection. The questionnaire included the demographic background and standardized instruments. The present study was conducted in two government primary schools in Wilayah Persekutuan Kuala Lumpur.

The total population in this study consisted of 140, 283 primary school children aged between 10 to 11 years in Malaysia. The population size was obtained from Department of Statistics Malaysia. The sample size consisted of 400 primary school children aged between 10 to 11 years in Wilayah Persekutuan Kuala Lumpur. The sample size was determined based on the sample size formulation by Cochran (1963). The sample for this study was selected by using multi-stage cluster sampling technique. On the first stage, two schools were selected out of 200 by lottery method. In the current study, only children in standard four and five were chosen from each school. Next, eight classes were selected from the two schools. Finally, 50 children were selected randomly from each class. Therefore, a total of 400 children were involved in this study.

Procedure

Permissions to conduct the study were obtained from the Ministry of Education (MOE) Malaysia, Selangor Education Department and school's principal. The study protocol has been explained to the children and their parents by using the information sheet. Prior to data collection, written consents were obtained from children and their parents, respectively. The participants were informed that their consent was voluntary, that they had the option to refuse to participate, and their anonymity and confidentiality would be protected. None of the prospective respondents declined to participate. The researchers read the questions and children could quickly get rid of the confusion. Upon submission, the completed responses were also checked to ensure the questionnaire correctly completed.

Measures

Self-esteem has been measured by using the Self-Esteem Inventory (SEI) (Coopersmith, 1987). The scale consists of 58 items, which are rated on a binary response of "Like Me" or "Unlike Me". A higher total score indicates higher levels of self-esteem. The internal consistency for SEI in this study was 0.770. Subjective Happiness Scale (Lyubomirsky & Lepper, 1999) was used to measure children's happiness. The scale comprises four items rated on a 7-points Likert-typed scale. Higher total score indicates higher levels of happiness. In the current study, the Cronbach's alpha coefficients of the scale was 0.774. Academic performance has been determined by the performance measured using the total percentage collected from the subjects taken in their first test in that particular year. A higher total percentage scored in the first test indicates better academic performance.

Data Analysis

In this study, the data were analyzed using the SPSS software. Descriptive statistical analysis were used to describe the respondents' background and academic performance. Pearson Product Moment Correlation analysis was utilized to examine the relationship between self-esteem and happiness with children's academic performance. Multiple regression was used to determine the influence of self-esteem and happiness on children's academic performance. An exploratory data analysis (EDA) was done to ensure that there was no violation of the assumptions of normality, homogeneity of variance and homogeneity of intercorrelations before conducting the bivariate and multivariate analysis.

FINDINGS

Descriptive Analysis

As shown in Table 1, most (51%) of the children were 11 years old, while the rest (49%) were 10 years old (Mean = 10.51). Of the 400 children studied, there were almost equal numbers of boys (49%) and girls (51%). The results also showed that majority (27.8%) mothers possessed a Master's degree while 23.8% of the mothers possessed Bachelor's degree. It was found that most (51.7%) of the mothers had a monthly family income more than RM 6,501 (Mean = RM 6707.50).

Table 1 Distribution of respondents' characteristics (N=400)

Variables	N (%)
Child's age	
10	196 (49.0)
11	204 (51.0)
Mean = 10.51	
Standard deviation = 0.50	
Child's gender	
Male	196 (49.0)
Female	204 (51.0)
Mother's education	
Primary school	0 (0.0)
Secondary school (PMR)	11 (2.8)
Secondary school (SPM)	7 (1.8)
Form 6	21 (51.3)
Certificate	72 (18.0)
Diploma	57 (14.2)
Bachelor	95 (23.8)
Masters	111 (27.8)
PhD	26 (6.5)
Monthly family income	
≤ RM6, 500.00	196 (48.3)
> RM 6,501.00	204 (51.7)
Mean = RM 6,701.50	
Standard deviation = 1509.60	

Child's Academic Performance

Academic performance of the children was assessed based on the total percentage of the first test. By using the total percentage of their first test, we can conclude their academic performance level for each respondent respectively. Based on the grades implemented by the respective schools, in which the total percentage of first test less than 76 marks is under average level, between 76 until 89 marks is in good level and above 90 marks is in excellent level. As presented in Table 2, the mean scored for child's academic performance was 82.17 (SD. = 7.24). Most (63.7%) of the children scored well in academic which indicates a good level of academic performance. In the present study, children who scored low and high level of academic performance were 23.3% and 13.0% respectively. The means of three possible scale ranges indicated that children involved in this study had good level of academic performance.

Table 2 Level of Academic Performance (N=400)

Variables	N (%)
Academic Performance	
≤ 75 (Average)	92 (23.3)
76 – 89 (Good)	253 (63.7)
90 – 100 (Excellent)	55 (13.0)
Mean = 82.17	
Standard deviation = 7.24	

Relationship between Self-esteem and Happiness with Children's Academic Performance

Pearson Product Moment Correlation analyses were conducted to analyze the relationship between self-esteem and happiness with children's academic performance (Table 3). The result showed significant positive relationship between self-esteem and academic performance ($r = 0.892, p \leq 0.05$). The results of this study are in line with the study conducted by previous researchers which found a significant relationship between self-esteem and academic performance (Habibollah et al., 2009; Zheng et al., 2020) Result also showed that there was significant positive relationship between happiness and academic performance ($r = 0.573, p \leq 0.05$). The present finding also support previous studies, which found that students with high level of happiness were bound to report higher level of academic performance (Gilman & Huebner, 2006; Lo'pez-Pe'rez & Fern'andez-Castilla, 2017).

Table 3 Correlations between self-esteem and happiness with academic performance

Variables	r	p
Self-esteem	0.892	0.024
Happiness	0.573	0.032

A multiple regression was conducted to determine the best predictor for explaining academic performance among children. Table 4 shows the results of regression analyses of the two independent variables which is self-esteem and happiness against dependent variable which is academic performance. Based on the table, overall model was significant with an adjusted R^2 of 0.154. This model explains 15%

of the variance towards total academic performance with $F = 4.653$, $p \leq 0.05$. The results showed that self-esteem and happiness were found to be significant predictors of children’s academic performance. The result revealed that self-esteem ($\beta = 0.381$, $p \leq 0.05$) was found to have strongest influence on children’s academic performance compared to happiness ($\beta = 0.203$, $p \leq 0.05$).

Table 4 Multiple regression analysis for children’s academic performance

Variables	β	p
Self-esteem	0.381	0.036
Happiness	0.203	0.042
$R^2 = 0.154$		
$F = 4.653^*$		

CONCLUSION

The main purpose of this study is to determine the relationship between self-esteem and happiness with academic performance among children. The results revealed that self-esteem had a significant positive relationship with children’s academic performance. The present findings support previous studies which were also found that children who have higher level of self-esteem tend to get higher grades in academic (Colquhoun & Bourne, 2012; Rahmani, 2011; Hatamina, 2016). The results also showed that self-esteem is the most influential factor that account for children’s academic performance compared to happiness. The results are in the lines of earlier literatures (Mohammed Yousef & Asma'a Abdel Fattah, 2016; Colquhoun & Bourne, 2012) which found that self-esteem is significantly predicted academic performance among children. The research study by Zheng and colleagues (2020) also found that students with high level of self-esteem tend to get better grades in academic. Children with high level of self-esteem may enhance their self-confidence and problem-solving skills and thus, elevated the academic performance level of the children.

Also, the results revealed a significant positive relationship between happiness and children’s academic performance. This finding is consistent with prior research indicating that happiness is positively related with academic achievement among children (Lo’pez-Pe’rez & Ferná’ndez-Castilla, 2017; Mohammadi, 2015). Some researchers suggest that perception of him/herself is one of the key factors that make a person feel happy (Tabbodi, Rahgozar & Abadi, 2015). When a person aware of his own inner power, he can overcome the problems by depending on his abilities. According to Amir Hossein and colleagues (2013), people who are happy and have a good mood were more cooperative, having a positive perspective, use effective coping strategies when having a problem. Happiness may also improve a person’s memory and this will improve information processing abilities. Past researchers claim that if people consider the importance of their goals and more likely to reach, there will feel happier. While people who feel less happiness will face greater conflict in attaining their goals (Tabbodi, Rahgozar & Abadi, 2015).

Overall, these findings contribute to the growing body of literature by extending the understanding of this topic within the primary school context. The current study offers practical implications as well. It can provide guidance on how to improve children’s academic performance by promoting their positive evaluation about their own self-worth and positive emotions. Measuring the children’s self-esteem and happiness in the schools may assist educators in planning interventions for children who are struggling with

emotional problems that possibly leading to poor academic performance. These findings may also useful for psychologist to plan a psychological intervention to increase the level of self-esteem and happiness to promote academic performance among children.

There are several limitations of this study which should be highlighted and taken into consideration. First, the findings may not be able to generalizable to other primary schools in Malaysia as it involved only two primary schools in Wilayah Persekutuan Kuala Lumpur. Therefore, future studies are recommended to expand this study in various states in Malaysia with larger sample size to provide greater generalization and yield a more reliable data. Moreover, the present study did not attempt to investigate other potential factors that may influence academic performance among children such as parenting styles, peer relationship, home environment and socio-economic status. Further research might explore the influence of this factors on children's academic performance. Lastly, this study only used the correlation and multiple regression analysis to analyze the data. Therefore, the direction of effects could not be determined. Future research should therefore use more advanced statistics to get more interesting findings about this topic.

Despite these limitations, the current findings add substantially to our understanding of how self-esteem and happiness are related with children's academic performance. Considering that academic performance is one of the most important indicators for measuring success in education and the only goal to be achieved by the entire educational systems, parents and educators should make every effort to create an environment that can enhance the children's self-esteem and happiness at home and school settings.

REFERENCES

- Al-Yasin, M. (2001). Happiness in school. *Journal of Education*, 33(1), 67–87.
- Amir Hossein, K., Mohammad, G., & Arezou Ghamari, G. (2013). The relationship between intrinsic motivation and happiness with academic achievement in high school students. *International Journal of Academic Research in Business and Social Sciences*, 3(11), 330-336. <https://doi.org/10.6007/IJARBS/v3-i11/34>
- Bahrami, D., & Bahrami, M. A. (2015). The relationship of self-esteem and achievement goals with academic performance. *African Journal of Basic and Applied Sciences*, 7(1), 65-72.
- Baring, R., Lee, R. B., & Maria, M. S. (2020). How much do academic performance, lifestyle, and social relationships explain depressive symptoms in Filipino university students? *Asia-Pacific Social Science Review*, 20(2), 14–21.
- Bassant, K. C. (1995). Factors associated with types of mathematics anxiety in college student. *Journal of Research in Mathematics Education*, 26, 327-345. <https://doi.org/10.2307/749478>
- Batool, S.S. (2019). Academic achievement: Interplay of positive parenting, self-esteem, and academic procrastination. *The Australian Psychological Society*, 72(2), 1–14. <https://doi: 10.1111/ajpy.12280>

- Callaway, R. J. (2009). Confirmatory factor analyses of two social-desirability scales and the investigation of their contribution to measures of well-being [master's thesis, University of British Columbia]. Scholar Works <https://doi.org/10.14288/1.0070828>
- Chacko, C. M., & Abraham, S. S. (2017). Academic Performance , Self Esteem and Happiness among Adolescents in Kerala. *Journal of Indian Psychology*, 4(4), 47-54. <https://doi.org/10.25215/0404.046>
- Cochran, W. G. (1963). *Sampling techniques* (2nd ed). John Wiley and Sons, Inc.
- Colquhoun, L. K., & Bourne, P. A. (2012). Self-Esteem and Academic Performance of 4th Graders in two Elementary School in Kingston and St. Andrew, Jamaica. *Asian Journal of Business Management*, 4(1), 36-57.
- Coopersmith, S (1987). *Self-esteem inventories*. Consulting Psychologists Press.
- Cvencek, D., Fryberg, S.S., Covaarubias, R., & Meltzoff, A. N. (2018). Self-Concepts, Self-Esteem, and Academic Achievement of Minority and Majority North American Elementary School Children. *Child Development*, 89(4), 1099-1109. <https://doi: 10.1111/cdev.12802>
- Cvencek, D., Nasir, N. S., O'Connor, K., Wischnia, S., & Meltzoff, A. N. (2015). The development of math–race stereotypes: “They say Chinese people are the best at math”. *Journal of Research on Adolescence*, 25, 630–637. <https://doi:10.1111/jora.12151>
- Datu, J., King, R., & Valdez, J. (2017). The academic rewards of socially-oriented happiness: Interdependent happiness promotes academic engagement. *Journal of School Psychology*, 61, 19–31. <https://doi.org/10.1016/j.jsp.2016.12.004>
- Denham, S. A. (1998). Emotional development in young children. The Guilford Press.
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal of a national index. *American Psychologist*, 55, 34–43. <https://doi.org/10.1037/0003-066X.55.1.34>
- Gill, S. (2020). Academic achievement of senior secondary school students in relation to high and low anxiety. *UGC Care Journal*, 40(40), 1459-1465.
- Gilman, R., & Huebner, E. S. (2006). Characteristics of adolescents who report very high life satisfaction. *Journal of Youth and Adolescence*, 35, 311–319. <http://dx.doi.org/10.1007/s10964-006-9036-7>
- Guindon, M. H. (2010). What is self-esteem? In M. H. Guindon (Eds). *Self-esteem across the lifespan: issues and interventions* (pp. 3–24). Routledge/Taylor & Francis Group.
- Habibollah, N., Rohani, A., Aizan, T., Jamaluddin, S., & Kumar, V. (2009). Self-esteem gender and academic achievement of undergraduate students. *American Journal of Scientific Research*, 3, 26-37.
- Hatamian, P. (2016). The relationship between self-esteem and academic achievement in male and female students. *Journal of Administrative Management, Education and Training*, 12(5), 43-47.

- Jirdehi, M. M., Asgari, F., Tabari, R., Leyli, E. K. (2018). Study the relationship between medical sciences students' self-esteem and academic achievement of Guilan university of medical sciences. *Journal of Education and Health Promotion*, 7(1), 52.
- López-Pérez, B., & Fernández-Castilla, B. (2018). Children's and adolescents' conceptions of happiness at school and its relation with their own happiness and their academic performance. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 19(6), 1811–1830. <https://doi.org/10.1007/s10902-017-9895-5>
- Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, 46, 137–155. <https://doi.org/10.1023/A:1006824100041>
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131, 803–855. <https://doi.org/10.1037/0033-2909.131.6.803>
- Marsh, H. W., Ellis, L. A., Parada, R. H., Richards, G., & Heubeck, B. G. (2005). A short version of the self-description questionnaire II: Operationalizing criteria for short-form evaluation with new applications of confirmatory factor analyses. *Psychological Assessment*, 17(1), 81–102. <https://doi.org/10.1037/1040-3590.17.1.81>
- Mohammadi, A. (2015). The relationship between happiness and confidence with student achievement (case study elementary schools in Kangan). *International Journal of Innovative Science, Engineering & Technology*, 2(12), 790-796.
- Mohammed Yousef, M., & Asma'a Abdel Fattah, A. (2016). Modeling the relation between self-esteem, loneliness and engagement as factors of children achievement in science. *European Journal of Social Sciences Education and Research January*, 3(1), 107-120. <https://doi.org/10.26417/ejser.v6i1.p107-120>
- Mruk, C. J. (2013) *Self-esteem and positive psychology* (4th ed). Springer Publishing.
- Oreopoulos, P. (2007). Do dropouts drop out too soon? Wealth, health and happiness from compulsory schooling. *Journal of Public Economics*, 91, 2213–2229. <https://doi.org/10.1016/j.jpubeco.2007.02.002>
- Orth, U., Robins, R. W., Meier, L. L., & Conger, R. D. (2016). Refining the vulnerability model of low self-esteem and depression: Disentangling the effects of genuine self-esteem and narcissism. *Journal of Personality and Social Psychology*, 110, 133–149. <https://doi.org/10.1037/pspp0000038>
- Poon, K. (2020). The impact of socioeconomic status on parental factors in promoting academic achievement in Chinese children. *International Journal of Educational Development*, 75, 1-9. <https://doi.org/10.1016/j.ijedudev.2020.102175>

- Rahmani, P. (2011). The relationship between self-esteem, achievement goals and academic achievement among the primary school students. *Procedia–Social and Behavioral Science*, 29, 803-808. <https://doi.org/10.1016/j.sbspro.2011.11.308>
- Rosenberg, M. (1965). *Society and the adolescent self- image*. Princeton University Press.
- Sagiv, L., Roccas, S., & Hazan, O. (2004). Value pathways to well-being: Healthy values, valued goal attainment, and environmental congruence. In A. Linley, & S. Joseph (Eds.), *Positive psychology in practice* (pp. 68–85). Wiley.
- Schultz, D., Izard, C. E., & Bear, G. G. (2004). Emotionality, emotion information processing, and aggression. *Development and Psychopathology*, 16, 371–387.
- Sheldon, K. M., & Lyubomirsky, S. (2004). Achieving sustainable new happiness: Prospects, practices, and prescriptions. In A. Linley, & S. Joseph (Eds.), *Positive psychology in practice* (pp. 127–145). Wiley.
- Soleimani, N., & Tebyanian, E. (2011). A study of the relationship between principals' creativity and degree of environmental happiness in Semnan high schools. *Procedia Social and Behavioral Sciences*, 29, 1869–1876. <https://doi.org/10.1016/j.sbspro.2011.11.436>
- Tabbodi, M., Rahgozar, H., & Abadi, M. M. (2015). The relationship between happiness and academic achievements. *European Online Journal of Natural and Social Sciences*, 4(1), 241-246.
- Tentama, F., & Abdillah, M. H. (2019). Student employability examined from academic achievement and self-concept. *International Journal of Evaluation and Research in Education*, 8(2), 243-248. <https://doi: 10.11591/Ijere.V8i2.18128>
- Wells, E., Hunnikin, L. M., & Ash, D. P. (2020). Low Self-Esteem and Impairments in Emotion Recognition Predict Behavioural Problems in Children. *Journal of Psychopathology and Behavioral Assessment*. <https://doi.org/10.1007/s10862-020-09814-7>
- Whitesell, N. R., & Harter, S. (1989). Children's reports of conflict between simultaneous opposite-valence emotions. *Child Development*, 60, 673–682. <https://doi.org/10.2307/1130732>
- Zheng, L. R., Atherton, O. E., Trzesniewski, K., & Robins, R.W. (2020). Are self-esteem and academic achievement reciprocally related? Findings from a longitudinal study of Mexican-origin youth. *Journal of Personality*, 1-17. <https://doi: 10.1111/jopy.12550>