

A Structural Equation Model for Happiness Among Elementary Students

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Abstract

This research examines the relationship of happiness, self-esteem, school adjustment and peer trust as a descriptive correlation study. The data collected from PSKC (Panel Study on Korean Children) panel survey of 2017 were analyzed using statistical program of SPSS 18.0. Several Descriptive statistics, Pearson Product Moment Correlations and Multiple Regression were used. The participants in this study were 757 males (51.0%) and 727 females (49.0%). The mean age was 9.39 years old. The structural model developed on the basis of causal correlations between peer trust, school adjustment, self-esteem and happiness was verified. It also examined that the elementary students' school adjustment partially mediates the association between peer trust and happiness. This confirmed again that school adjustment is an important factor in the happiness of elementary school students. Based on these conclusions, it is suggested that educational activities or home environments that provide school-age children with an opportunity to explore themselves are necessary

Keywords

happiness, self-esteem, school adjustment, peer trust, elementary students, Korea

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Introduction

Happiness is an important element of life. Since happiness is an indicator of a healthy psychological state and childhood is a critical period in which personality is formed, research and interest in childhood happiness are increasing (Kang Y. H., 2012). According to a recent survey of 7,343 Korean school children nationwide conducted by the Institute for Social Development Studies, subjective happiness was 88 points, ranking a poor 20th among 22 OECD member countries (The Chosunilbo Newspaper, 2017). A study reported that 50.3% of Korean children are stressed for their studies and it was the highest rate among thirty countries surveyed (Kim M. S., 2016). In addition, Korean kids are generally unhappy, and only 60.3 percent of kids gave more than six out of 10 points, the lowest figure among 30 countries (Kim M. S., 2015). In Korean society, most people are faced with fierce competition to become the best, and from an early age they grow up in a competitive environment with an achievement-oriented lifestyle (Jeon D. S., 2011). Happiness allows individuals to be satisfied with their lives and maintain psychological and physical health (Liang J. H., 2013). Happiness depends on the ratio of the positive and negative emotions of the individual. Even if a person is very afraid and has negative emotions, if they have a very pleasant and positive experience at the same time, the two things can offset each other and the person still can feel happy. Understanding children's emotions and cognition is necessary to study children's happiness. Children's perception of their environment, their

coping with the interactions of people or events in that environment, and their positive and negative emotional changes all affect the child's happiness. In particular, it can be expected that children in late school age will experience changes in the body and emotions, and their cognition and emotions will change.

There are many factors that influence children's happiness. They spend much time in school, therefore their physical characteristics and psychological factors, as well as their adjustment to school life, their peers, and teacher relationships also affect their children's happiness (Jeon D. S., 2011; Liang J. H., 2013; Baumeister R F *et al.*, 2003). Self-esteem can be an important indicator of psychological well-being (Liang J. H., 2013). Children with high self-esteem accept themselves well, show little depression or anxiety, have low levels of aggression, show positive behavior in interpersonal relationships, and better adapt to school life, so that they have a positive attitude and feeling toward their lives (Liang J. H., 2013; Baumeister R F *et al.*, 2003). If the self-esteem is low, the ability to adapt to school life decreases, and negative behaviors may occur in interpersonal relationships and other social relationships (Eo J. K., 1998). School adjustment means social motivation which is expressed as positive interpersonal relationships, behavioral competence, and social goal pursuit (Wentzel K. R., 2003). School adjustment have been defined in connection with children's academic progress or achievement (Birch S H *et al.*, 1996). When young children start new school life, they face many challenges such as to adjust to classroom routines, negotiating the complexities of interpersonal relationships with classmates (Birch S H *et al.*, 1997). Since there is the study that showed that happiness in childhood affected happiness after adulthood (Yang Y., 2008), attention and research on happiness in childhood are necessary. However, studies on adults and adolescents have been conducted mostly, and studies on the happiness of children tend to be relatively overlooked (Yu S *et al.*, 2011), so accumulation of research on happiness in childhood is necessary (Seong D G *et al.*, 2015; Cho S *et al.*, 2009). This study explored how peer trust, self-esteem, and school adjustment correlate with children's happiness for school.

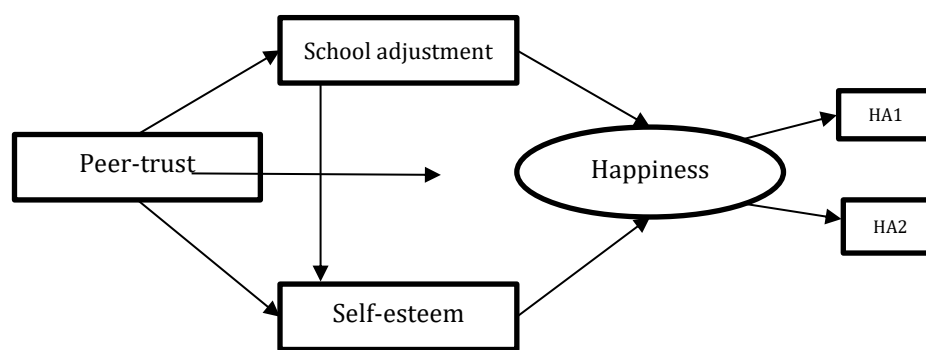


Fig 1. Hypothesized model

Materials and Methods

Participants

Data were collected from PSKC (Panel Study on Korean Children) panel survey of 2017. The data were analyzed using statistical program of SPSS 18.0. Several Descriptive statistics, Pearson Product Moment Correlations and Multiple Regression were utilized.

Measurements

Happiness

Happiness scale revised by PSKC panel survey of 2017 (Panel Study on Korean Children, 2017) was used. It consisted 6 items asking about a degree of happiness and 6 items were evaluated with the 4 point Likert scale. Cronbach's alpha coefficient was .74.

Self-Esteem

Self-esteem scale revised by PSKC panel survey of 2017 (Panel Study on Korean Children, 2017) and MCS (Millennium cohort study, 2008) was used. It consisted 5 items asking about a degree of self-esteem and the items were evaluated with the 4 point Likert scale. Cronbach's alpha coefficient was .76.

School adjustment

School adjustment scale revised by PSKC panel survey of 2017 (Panel Study on Korean Children, 2017) and Chi & Jung (2006) was used. It consisted of 35 items asking about a degree of school adjustment. The items were evaluated with the 5 point Likert scale. Cronbach's alpha coefficient was .96.

Peer trust

Peer trust scale revised by PSKC panel survey of 2017 (Panel Study on Korean Children, 2017) was used. It consists 3 items asking about a degree of peer trust. The items were evaluated with the 4 point Likert scale. Cronbach's alpha coefficient was .63.

Data Analysis

The Statistical Package for the Social Sciences and the Analysis of Moment Structures were used in this study. The fit of structural models to the data was evaluated with the root mean square error of approximation, the standard chi-square index of statistical fit, and Comparative Fit Index (CFI).

Ethical Consideration

Data were collected from PSKC (Panel Study on Korean Children) panel survey of 2017. Participants were elementary students who agreed to joined in the panel survey.

Results

General Characteristics

The participants were 757 males (51.0%) and 727 females (49.0%) as shown in Table 1. The mean age was 9.39 years old. Father's mean age is 42.26 years old, mother's mean age 39.81 years old. Children's weight is 33.16 Kg, children's height is 135.32cm.

Table 1. General characteristics (N=1,484)

Variable	Category	N (%), Mean±SD
Gender	Male	757 (51.0)
	Female	727 (49.0)
Age		9.39±0.12

Father's age	42.26±3.96
Mother's age	39.81±3.66
Children's weight	33.16± 7.1
Children's height	135.32± 5.7

Descriptive statistics

Descriptive statistics for children's happiness, self-esteem, school adjustment, & peer trust are shown in Table 2. The level of children's happiness, self-esteem, school adjustment, and peer trust was 3.32±.45, 3.47±.44, 3.89±.62, 3.20±.61 point each.

Table 2. Descriptive statistics for variables

Variable	Mean±SD
Happiness	3.32±.45
Self-esteem	3.47±.44
School adjustment	3.89±.62
Peer trust	3.20±.61

Correlation among Main Variables

Table 3 describes correlations among main variables. Happiness was significantly positively related with self-esteem ($r = .63, p < .001$), school adjustment ($r = .24, p < .001$), and peer trust ($r = .56, p < .001$).

Table 3. Correlation among Main Variables

	Happiness	Self-esteem	School adjustment
Self-esteem	.63***	1	
School adjustment	.24***	.14***	1
Peer trust	.56***	.49***	.19***

*** $p < .001$

Factors influencing in the children's depression

The model fit indexes of the hypothesized model were; $\chi^2 = 58.76, df = 2, p < .001, TLI = 0.87, CFI = 0.97, RMSEA = 0.14$ as seen in Table 6. All specified paths were significant as seen in Table 4 except the path of school adjustment to self-esteem. When an alternative model without the path from school adjustment to self-esteem was explored, the model fit was improved (See Figure 2). The alternative model showed to fit the data as shown in Table 5 and 6 ($\chi^2 = 60.42, df = 3, p < .001, TLI = 0.91, CFI = 0.97, RMSEA = 0.11$). The alternative model was better fit to the data, comparing these two models ($\Delta \chi^2_{df=1} = 1.66, p > .05$) (see Table 6), the alternative model was adopted as the final model. The final model explained 64% of the variance in elementary students' happiness.

Table 7 describes the standardized direct and indirect effects. The elementary students' school adjustment partially mediates the association between peer trust and happiness ($\beta = .28, p < .01$; Sobel test $Z = 2.99, p < .01$). The elementary students who fully trust their friends are found to be highly adaptable to school life, and highly adaptable students are shown to have a high level of happiness. These results show that school adjustment is an important factor in improving the happiness of elementary school students.

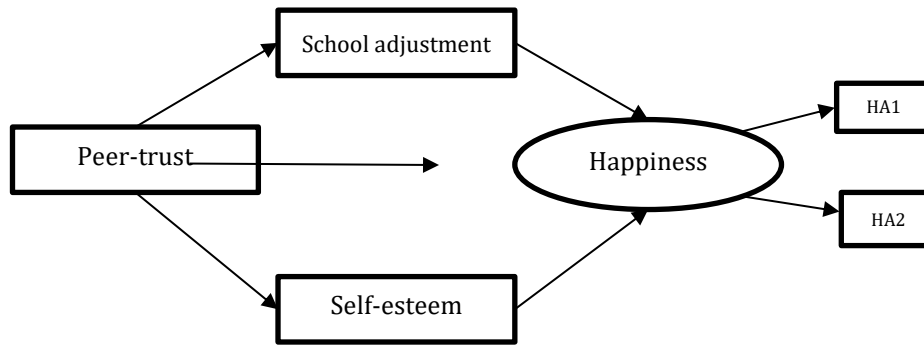


Fig 2. Alternative model

Table 4. Regression weights of hypothesized model

	Estimate (Unstandardized)	Estimate (Standardized)	SE	CR
Peer trust → School adjustment	.09	.13***	.02	5.00
Peer trust → Self-esteem	.35	.49***	.02	21.27
School adjustment → Self-esteem	.03	.03	.03	1.29
Self-esteem → Happiness	.48	.54***	.02	20.90
Peer trust → Happiness	.23	.36***	.02	14.24
School adjustment → Happiness	.08	.09***	.02	4.04

*** $p < .001$. SE=Standard error. CR= composite reliability.

Table 5. Regression weights of Alternative model (final model)

	Estimate (Unstandardized)	Estimate (Standardized)	SE	CR
Peer trust → Self-esteem	.35	.49***	.02	21.61
Peer trust → School adjustment	.09	.13***	.02	5.00
Self-esteem → Happiness	.48	.54***	.02	20.90
Peer trust → Happiness	.23	.36***	.02	14.22
School adjustment → Happiness	.08	.09***	.02	4.04

*** $p < .001$. SE=Standard error. CR= composite reliability.

Table6. Model fitness index for hypothesized model and alternative model

Model	χ^2	df	p	TLI	CFI	RMSEA	$\Delta\chi^2$
Hypothesized model	58.76	2	.00	.87	.97	.14	-
Alternative model	60.42	3	.00	.91	.97	.11	$\Delta 1.66$

Table 7. Standardized Indirect Effect

	Standardized direct effect	Standardized indirect	Standardized total effect
Peer trust → Self-esteem	.49	.00	.49
Peer trust → School adjustment	.13	.00	.13

Self-esteem → Happiness	.54	.00	.54
Peer trust → Happiness	.36	.28**	.64
School adjustment → Happiness	.09	.00	.09

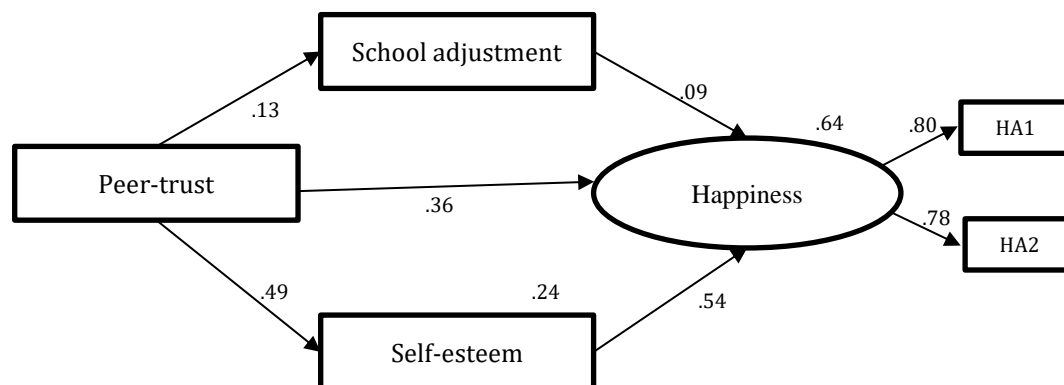
** $p < .01$ 

Fig 3. Final model

Discussion

This research aimed to investigate whether peer trust, school adjustment, and self-esteem predicted happiness of elementary students. The structural model developed on the basis of causal correlations between peer trust, school adjustment, self-esteem and happiness was verified. It also examined that the elementary students' school adjustment partially mediates the association between peer trust and happiness. First, there was a significant relationships between elementary students' happiness and peer trust, school adjustment, and self-esteem. The findings of this study were in part consistent with previous studies suggesting the direct relationships between happiness and self-esteem (Baumeister R F *et al.*, 2003), between happiness and peer trust (Seong D G *et al.*, 2015), between happiness and school adjustment (Stiglbauer B *et al.*, 2013). Korean students' social support, particularly in their closer social circles such as family and peer group, significantly predicted their happiness (Lee D S *et al.*, 2015). In addition, their happiness was significantly shaped by their self-esteem and adjustment abilities to overcome difficult experiences (Lee D S *et al.*, 2015). However a study reported that the path from self-esteem to school happiness was not significant (Yoon N *et al.*, 2014). That study used the scale of school happiness measured school life' happiness. The researcher suggested that the continuous research will be needed between students' happiness and self-esteem. Nowadays, parents, teachers, and therapists have focused efforts on boosting self-esteem, on the basis of assumption that positive outcomes and benefits such as happiness will be caused from high self-esteem (Baumeister R F *et al.*, 2003). Second, this study showed the mediation effect of school adjustment in the relationship between peer trust and happiness. Elementary students' peer trust directly affected happiness and indirectly influenced students' happiness via school adjustment. This finding was in part consistent with previous studies suggesting the direct relationships between peer trust, self-esteem and happiness (Liang J. H., 2013; Baumeister R F *et al.*, 2003). This result reconfirms the importance of school adjustment in the happiness of elementary students. Even elementary school students who feel less peer trust could increase the level of happiness if they have high school adjustment. Therefore, elementary school students who have high confidence with their peers have a positive evaluation of themselves, leading to an increase in the sense of happiness. This confirmed again that school adjustment is an important factor in the happiness of elementary school students. Elementary school students with high school adaptability will respond positively to their stresses or challenges and resist bullying even when they are bullied (Baumeister R F *et al.*, 2003). On the other hand,

elementary school students with low trust from their peers had difficulty adjusting to school, showed a negative attitude toward life, and thought they were unhappy. Therefore, helping elementary school students maintain a healthy and positive psychological state should be preceded by activities that can enhance peer trust or opportunities to improve their school adjustment for elementary school students (Yoon N *et al.*, 2014). In other words, when designing educational activities at school, it will be important to trust peers and actively help them adapt to school. Finally, based on these conclusions, it is suggested that educational activities or home environments that provide school-age children with an opportunity to explore themselves are necessary. With these opportunities, elementary school students demonstrate various self-expression in the educational field. Since the fields that students are good at can be different, teachers should observe this well and give good feedback to the children to create a virtuous cycle in which self-esteem and positive emotions are enhanced. The trust of teachers and colleagues not only has a positive effect on elementary school students, but also becomes an opportunity to gain the trust of peers and improves the ability to adapt to school, thereby increasing positive emotions (Talebzadeh F *et al.*, 2011).

Conclusion

This research aimed to investigate whether peer trust, school adjustment, and self-esteem predicted happiness of elementary students. The participants were 1,484 elementary students, 757 males (51.0%) and 727 females (49.0%). The structural model developed on the basis of causal correlations between peer trust, school adjustment, self-esteem and happiness was verified. It also examined that the elementary students' school adjustment partially mediates the association between peer trust and happiness. This confirmed again that school adjustment is an important factor in the happiness of elementary school students. Based on these conclusions, it is suggested that educational activities or home environments that provide school-age children with an opportunity to explore themselves are necessary.

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