

## Exploring the Influence of the Factors Related to Students and Parents over Elementary School Students' School Adjustment: Focused on School Type and Stage

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**Abstract.** This study aims to investigate the relations between student-related factors and parent-related factors on elementary school students' school adjustment and to identify whether those factors differ by school type (innovation school vs. general school) and by stage (1<sup>st</sup>-year as the base year of the survey vs. 2<sup>nd</sup>-year as the first follow-up). GEPS (Gyeonggi Education Panel Study) 1<sup>st</sup>-year and 2<sup>nd</sup>-year survey data were analyzed by using Structural Equation Modeling (SEM). The results showed that most variables had a significant correlation with school adjustment regardless of school type (innovation vs. general school) and stage (1<sup>st</sup>-year vs. 2<sup>nd</sup>-year). For innovation schools, monitoring (MO) had an effect on self-efficacy (SE), reasonable parenting behavior (RB) on school adjustment among friends (AF), and SE on test stress (TS), AF, and school adjustment with teachers (AT) in the first year, while MO had an effect on SE, parents' school satisfaction (PSS) on AT, and SE on TS, AF, and AT in the second year. For general schools, MO had an effect on SE and AF, RB on SE and TS, PSS on AF and AT, SE on TS, AF, and AT, and TS on AF in the first year, while MO had an effect on SE and AF, RB on TS, PSS on AF and AT, SE on TS, AF and AT, and TS on AF in the second year. This showed that the factors and the degree of influence over elementary school students' school adjustment differed depending on the school type (innovation or general) and stage (1<sup>st</sup>-year or 2<sup>nd</sup>-year).

**Key Words:** School Adjustment, Parents' Child-Rearing Attitudes, Parents' School Satisfaction, Self-Efficacy, Test Stress, Elementary School Students, Gyeonggi Education Panel Study

### 1. Introduction

Despite the variation in name by region, including innovation schools (Gyeonggi Province), Seoul innovation schools, and Bit-go-eul innovation schools (Gwangju), Innovation schools share the same goal of creating new schools by overcoming the limits of conventional education, building a democratic school culture, reforming the curriculum, and producing a virtuous circle of school initiative action to better education which will normalize public education.

Generally, the change in school setting (including the teaching-learning environment) brings about change in not only the school atmosphere but also members' perception and their behavior. In particular, elementary school students are largely influenced by environmental factors, whereas secondary school students are less affected because the personal and psychological factors related to their learning are far more developed.

Recently, there has been some research on the changes in innovation schools [1, 2]. However, there are no representative studies based on corroborative data, nor are there any studies that are focused on students' traits. In this study, data compiled from the GEPS (Gyeonggi Education Panel Study) 1<sup>st</sup>-year and 2<sup>nd</sup>-year surveys are used to investigate the factors that affect elementary school students' school adjustment, the relationship between these factors, and whether these factors vary depending on school type (innovation or general) and stage (1<sup>st</sup>-year or 2<sup>nd</sup>-year).

To address the goals of this study, the detailed research questions are as follows:

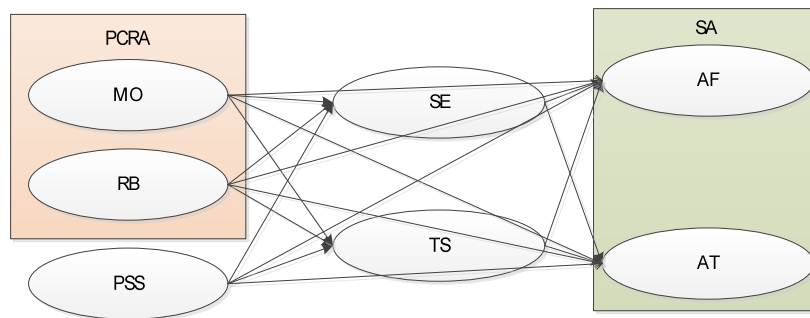
1. What are the correlations among factors that affect elementary students' school adjustment (teachers, friends)?
1. Do factors that affect elementary school students' school adjustment (teachers, friends) differ from school type (innovation or general) and stage (1<sup>st</sup>-year or 2<sup>nd</sup>-year)?

## 2. Literature Review

Self-efficacy had a positive effect on students' adaptive behavior no matter what grade they were in, whether they were in elementary or secondary school [3]. For example, in Shin & Seo's study [3], depending on whether they were in elementary or secondary school, there was a difference in the level of direct and indirect effect on both elementary and secondary school students, yet support from friends was the only factor that had a direct influence on students' adaptive behavior, and support from friends and parents had an indirect influence on their adaptive behavior through their self-efficacy. Various types of stress elementary school students experience such as life stress, academic stress, and family stress had negative effects on their school adjustment [4]. For example, Park, Ahn, & Jung [4] showed that life-stress had a negative influence on their school adjustment. In addition, parents' child-rearing attitudes perceived by elementary school students also had an effect on their school adjustment [5]. In Choi & Choi's study [5], school adjustment on teachers and classes was improved when mothers were authoritative or authoritarian, school adjustment on friends when mothers were authoritative, and school adjustment on rules when fathers were permissive.

On the contrary, there were no previous studies on the effect of school satisfaction among parents of elementary school students on their children's school adjustment. However, since parents started to participate in teacher evaluation, they have become more interested in the school, which has affected not only their children but the teachers as well. Therefore, parents' satisfaction in regards to the school was also taken as a potential variable to be analyzed in this study.

Based on the results of the previous studies mentioned above, Figure 1 presents the relationships between the variables (parents' child-rearing attitudes (monitoring (MO), reasonable parenting behavior (RB)), parents' school satisfaction (PSS), self-efficacy (SE), test stress (TS), school adjustment among friends (AF), school adjustment with teachers (AT)) considered in this study.



*Note.* PCRA=Parents' Child-Rearing Attitudes, MO=MOnitoring, RB=Reasonable parenting Behavior, PSS=Parents' School Satisfaction, SE=Self-Efficacy, TS=Test Stress, SA=School Adjustment, AF=school Adjustment among Friends, AT=school Adjustment with Teachers

**Fig. 1.** Research Model

### 3. Methods

This study investigates the factors that affect elementary school students' school adjustment (AT and AF) and analyzes the relationships between those factors by analyzing the GEPS 1<sup>st</sup>-year and 2<sup>nd</sup>-year survey data collected from elementary school students and their parents. The two-year longitudinal data measured from the survey questionnaires were analyzed by the SAS software for obtaining descriptive statistics and for comparing the characteristics between the two different types of schools (innovation school vs. general school). AMOS 22.0 was employed in order to perform the SEM (Structural Equation Modeling) analysis and confirmatory factor analysis for each type of school. Every analysis was conducted by dividing the data into two school types (innovation school or general school) which were in turn divided into 1<sup>st</sup>-year and 2<sup>nd</sup>-year.  $p < .05$  was regarded as statistically meaningful.

### 4. Results and Discussion

The key results of the study are presented as follows.

First, there was no statistic relationship between PSS and TS in the first year of innovation schools and between PSS and TS in both the 1<sup>st</sup>-year and 2<sup>nd</sup>-year of

general schools. With the exception of the preceding variables, all other variables were significantly related to one another whether they pertained to innovation or general schools, and whether they pertained to the 1<sup>st</sup>-year or 2<sup>nd</sup>-year. In particular, TS had a negative relation with the rest of the variables regardless whether it was an innovation or general schools.

Second, measurement and structural models showed that for both innovation and general schools in either their 1<sup>st</sup>-year or 2<sup>nd</sup>-year, both TLI and CFI were over .90. RMSEA in all the models appeared to be below .05. Therefore, the models on school type (innovation vs. general school) and stage (1<sup>st</sup>-year vs. 2<sup>nd</sup>-year) of this study are all appropriate.

Third, in the case of innovation schools, MO had an effect on SE, RB on AF, and SE on TS, AF, and AT in the 1<sup>st</sup>-year, while MO had an effect on SE, PSS on AT, and SE on TS, AF, and AT in the second year. These results show that between the 1<sup>st</sup>-year and 2<sup>nd</sup>-year, there are differences among the affecting variables and the degree of those effects on the whole. In the case of general schools, MO had an effect on SE and AF, RB on SE and TS, PSS on AF and AT, SE on TS, AF and AT, and TS on AF in the 1<sup>st</sup>-year, while MO had an effect on SE and AF, RB on TS, PSS on AF and AT, SE on TS, AF, and AT, and TS on AF in the 2<sup>nd</sup>-year (See Table 1).

**Table 1.** Estimation of the standardized path coefficients in the structural models for the innovation and general school students

Year	Path	Innovation School(n=587)			General School(n=2,255)		
		$\beta$	S.E.	C.R.	$\beta$	S.E.	C.R.
1st	SE ← MO	.203	.103	3.427***	.184	.043	6.475***
	TS ← MO	-.014	.096	-.244	-.005	.043	-.179
	AF ← MO	-.045	.092	-.856	.063	.039	2.541*
	AT ← MO	.049	.107	.892	.022	.049	.843
	SE ← RB	.049	.105	.811	.062	.042	2.176*
	TS ← RB	-.068	.099	-1.127	-.061	.042	-2.089*
	AF ← RB	.167	.095	3.047**	-.024	.038	-.974
	AT ← RB	.013	.109	.241	-.017	.047	-.673
	SE ← PSS	.040	.078	.781	.016	.036	.639
	TS ← PSS	.068	.074	1.347	.001	.036	.049
	AF ← PSS	-.005	.070	-.108	.150	.042	6.473***
	AT ← PSS	.044	.082	.943	.097	.033	4.334***
	TS ← SE	-.345	.049	-6.629***	-.275	.026	-10.29***
	AF ← SE	.550	.053	10.42***	.584	.029	21.09***
	AT ← SE	.478	.058	9.242***	.451	.032	17.69***
	AF ← TS	.069	.048	1.519	.074	.024	3.282***
AT ← TS	.076	.056	1.620	-.023	.030	-1.009	
2nd	SE ← MO	.205	.104	3.357***	.207	.045	7.307***
	TS ← MO	-.050	.092	-.826	.034	.039	1.209
	AF ← MO	-.010	.071	-.171	.006	.036	6.483***
	AT ← MO	.074	.091	1.299	.019	.046	.736
	SE ← RB	.057	.110	.938	.010	.049	.331
	TS ← RB	.014	.096	.227	-.070	.042	-2.445*

AF	←	RB	.011	.075	.197	-.019	.039	-.704
AT	←	RB	-.044	.095	-.781	-.015	.049	-.555
SE	←	PSS	.045	.083	.933	-.003	.035	-.102
TS	←	PSS	-.068	.073	-1.409	.019	.030	.773
AF	←	PSS	.073	.057	1.605	.148	.036	6.483 <sup>***</sup>
AT	←	PSS	.184	.074	3.987 <sup>***</sup>	.106	.028	4.606 <sup>***</sup>
TS	←	SE	-.359	.043	-7.367 <sup>***</sup>	-.298	.023	-11.25 <sup>***</sup>
AF	←	SE	.515	.037	10.08 <sup>***</sup>	.539	.024	19.52 <sup>***</sup>
AT	←	SE	.420	.045	8.754 <sup>***</sup>	.433	.028	17.28 <sup>***</sup>
AF	←	TS	.084	.038	1.788	.086	.023	3.662 <sup>***</sup>
AT	←	TS	-.027	.049	-.591	-.028	.029	-1.208

Note:  $\beta$ =standardized path coefficient, MO=parents' child-rearing attitudes (MOnitoring), RB=parents' child-rearing attitudes (Reasonable parenting Behavior), PSS=Parents' School Satisfaction, SE=Self-Efficacy, TS=Test Stress, AF=school Adjustment among Friends, AT=school Adjustment with Teachers

<sup>\*\*\*</sup>  $p < .001$ , \*  $p < .05$ .

Fourth, in the case of AF in innovation schools, SE had the highest direct and overall effect, and RB the second highest on AF in the 1<sup>st</sup>-year, whereas SE had the most direct and overall effect, followed by PSS on AF in the 2<sup>nd</sup>-year. Furthermore, in the case of AT in innovation schools, SE had the highest direct and overall effect in the 1<sup>st</sup>-year, whereas SE was once again the leading direct and overall variable in the 2<sup>nd</sup>-year.

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