

Analysis on the Actual Status and Qualities of School Education in Korea(IV): A Study on the Elementary Schools

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This study is the forth cycle of the study of the actual status and the quality of elementary education, and intended to compare the findings with the former three cycles (2005, 2008, 2011, and 2014). In addition, in the study of 2014, the study intended to examine students' academic performance and future key competencies. The results of this study are summarized as follows.

The Status of Elementary School Education

In 2014, there were 2,725,000 students from 5,927 elementary schools and an average class numbers of each school was 20.11. The number of elementary teachers were 182,672 in total and the number of female teachers was as three times as male teachers. A number of elementary students, a number of students per class and teacher has been decreased. Elementary students generally expected to advance to four-year higher education institutions and there was a big difference in parent's occupational status across locations(Seoul, metropolitan cities, small cities, rural areas). Parental support for education was 'normal' within 5-point Likert scale, the point of Seoul, the capital

was highest while the one in rural areas was lowest.

Parents-children relationship was normal level, and no significant difference was found across locations. In general, elementary students had cultural activities once or twice per year and interactions with parents for social and cultural activities once or twice per year, and had interactions with parents in terms of family relationships once or twice per month. There were significant differences in cultural activities and interactions with parents across locations. In 2014, cultural activities of elementary students has been slightly increasing since 2011, but they had those activities not as frequent as in 2005 and 2008. Parents-children interactions has been decreasing since 2005.

The findings of school climate, class climate, learning and psychological characteristics, learning and school life, after-school activities were as follows. Teacher autonomy, teacher efficacy, teacher collaboration, and teacher morale and enthusiasm as factors consisting school climate has been consistently decreasing since 2005. In 2014, all factors except teacher collaboration for school works showed statistically significant differences across locations. An average score of classroom climate was more than ‘normal’, and the degree of teacher-centered instruction was higher than the one of learner-centered instruction.

The extrinsic and intrinsic motivation was lower than ‘normal’, and has been decreasing since 2005. There were significant differences in both extrinsic and intrinsic motivation across locations. The level of self-concept in subjects as well as self-respect was higher than normal and have been increasing since 2005. There were also significant differences in these factors across locations.

The level of learning attitude (patience) was normal and the degree to which they paid attention to instruction was ranged between 21 and 30 minutes. The degree of delinquency·deviance had been increasing since 2005, but has slightly decreased in 2014. Level of learning attitudes, the hours for paying attention to classroom instruction, and attitudes towards classroom instruction have been increased compared to the former cycle, and there was statistically significant difference across locations. Especially, students in rural areas showed lower level of learning attitudes, the hours for paying attention to classroom instruction, and attitudes towards classroom instruction

than averages.

The degree of reading enjoyment was normal but has been decreasing since 2005. In terms of self-directed learning time, elementary students studied Korean language arts for 2.33 hours per week and mathematics for 3.42 hours per week on average. In general, 50.81% of elementary students participated in private education for Korean language arts and 78.58% of students learned mathematics by private education institutions. The degree of private education of both subjects showed significant differences across locations. The time for using computers and the internet was 30 minutes a day on average. Students' use of computer and the internet for learning has been increased while their use for enjoying has been decreased.

In terms of educational performance, cognitive performance(academic achievement), affective performance(characteristics, future key competencies), and school satisfaction were examined. Average scores of reading and mathematics was 59.70 and 46.26 respectively and these scores have been decreased compared to the findings in 2011. There have been significant differences in both reading and mathematics scores across locations in all cycles. Specifically, elementary students in Seoul showed highest scores in reading and mathematics, but their counterparts in rural areas showed lowest scores.

In terms of future key competencies, average score of total and three factors composing future key competencies were 'normal', and have been slightly increased compared to the findings in 2011. There were significant differences in total score and three factors across locations in that Seoul students showed highest scores while their counterparts in rural areas showed lowest scores.

The degree to which elementary students were satisfied with relationships with others and school lives was more than "satisfied" and Seoul students showed highest degree of satisfaction. Parents' satisfaction with school education and school management has been increased compared to the findings in 2011, and there was significant difference across locations. Teachers' satisfaction has been likely to increase since 2004 and was more than normal in 2014.

Factors Influencing Elementary Students' Academic Performance

For reading score, there were 4.65% of variance distribution between schools and

95.35% of variance distribution between individual students. For mathematics, there were 6.00% of variance distribution between schools and 94.00% of variance distribution between individual students. That is, school education may explain students' academic performance at best within 5%.

Within school-level factors, families' SES, parental support for education, parents' expectation for children's education, the degree to which students enjoyed reading, competitive attitudes towards learning positively influenced academic performance for reading and mathematics. On the other hand, a single parent family and extrinsic motivation had negative effects on students' academic performance for reading and mathematics.

Within student-level factors, students' attitudes towards classroom instruction had positive effect on both reading and mathematics performance. Particularly, in terms of mathematics, the effects of relationship with parents and intrinsic motivation were disappeared after adding students' attitudes towards classroom instruction. Students' satisfaction with relationships with others significantly influenced reading score while it was not the case for mathematics score. Teachers' achievement pressure significantly and positively influenced mathematics score but it was not the case for reading score.

Factors Influencing Future Key Competencies

Creativity, self-regulation, and social competencies were explained within 95~96% by individual-level factors while these competencies were explained within only 4~5% by school-level factors. That is, future key competencies generally varied across students' individual characteristics and family backgrounds much more than school education.

Among family background factors, family's SES positively influenced creativity, self-regulation, and social competencies. A single-parent family and parents- children relationships positively influenced self-regulation competencies.

Within individual-level factors, the degree to which students enjoyed cultural and arts-related events, time for using computers for learning, whether students did volunteering service, kindness·care, self-respect, intrinsic motivation, learning strategies, patience, and attitudes towards classroom instruction influenced all three types of future key competencies. Female students showed higher level of

self-regulation and social competencies and spent more time in exercising than their male peers. Pre-achievement significantly influenced only creativity and social competencies and the degree to which students enjoyed reading significantly influenced only creativity competencies. Responsibility·collaboration did have negative effects on creativity competencies, but positive effect on social competencies.

Within school-level factors, location was significant in that students in rural areas showed higher level of social competencies than their peers in Seoul and metropolitan cities. An average SES of school has negative effect on self-regulation competency. Student-centered instruction positively influenced students' self-regulation and social competencies.

Policy Implication

Based on the findings of this study, implications for policy to foster future human resources having academic competencies as well as future key competencies are as follows.

- ① Develop and manage in- and out-of-school programs in order to close the educational gap
- ② Foster environment in families and schools in order to stimulate students' intrinsic motivation
- ③ Foster environment and invest funds in order for teachers to focus more on classroom instruction
- ④ Foster school climate in order to respect peers and teachers
- ⑤ Link schools and communities for sharing spaces for cultural·arts·physical activities
- ⑥ Develop programs and systems in order to strengthen pre- and in-service teachers' characters
- ⑦ Manage learner-centered instruction and foster collaborative learning culture in schools

Keywords: school effectiveness, academic achievement, educational performance, future key competencies, future talents, school panels