

Effect of family poverty on self-regulated learning ability and academic achievement mediated by school learning activities and private tutoring hours of adolescents

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Abstract. The purpose of this study is to understand whether participation in learning activities at school and private tutoring differs in accordance with income and to observe the mediator effect of school learning activities and participation in private tutoring on the influence of income on self-regulated learning ability and academic achievement. Structural equation modeling was employed for statistical analyses. This study reveals that the students from families with a higher income participate more actively in class activities and spend more time in private tutoring. In addition, they tend to participate more actively in school learning activities and show a higher level of academic achievement. Based on these results, this study suggested methods for improving the self-regulated learning ability and academic achievement of adolescents.

Keywords: Self-regulated learning ability, Academic achievement, School learning activities, Private tutoring

1 Introduction

Academic achievement in the adolescent period is a major variable for predicting adult life, because low academic achievement during the adolescent period affects professional and economic performances in the long term after they reach adulthood. In order to improve the academic achievement of adolescents, self-regulated learning ability is necessary. Adolescents with high self-regulated learning ability are well-motivated to learn while knowing about themselves. Therefore, by controlling and regulating their behavior to fit the environment, this adolescent tends to adapt well to school life and attains a higher sense of accomplishment.

According to previous studies, family income is frequently discussed as a major variable that affects the academic achievement of adolescents. Since poor families are more likely to neglect the physical health of their children due to lower access to economic support, there is a higher possibility that the family might face deterioration of their physical and cognitive environment. As a result, this might have a negative effect

on the academic achievement of their children. Many households in Korea pay a significant amount of money for private tutoring in order to improve the academic achievement of adolescents, and the rate of students participating in private tutoring is constantly increasing every year. According to the “2014 Comprehensive Survey of Adolescents,” published in January 2015 by the Ministry of Gender Equality and Family, public education expenditure per family decreased by 44,000 won compared with 2011, while private tutoring expenditure increased by 65,000 won. In addition, it appears that the rate of participation and time spent on the private tutoring of adolescents is constantly increasing every year. As private tutoring is recognized as a major factor affecting academic achievement, this rate is constantly increasing even though it adds to the burden of household budgets. However, the research results on the effect of private tutoring are not consistent. A study has found that the parental support for students through private tutoring enhances the academic achievement of students. In contrast, a study has found that private tutoring has a negative effect on students or that there is no significant relationship between private tutoring and academic achievement. Furthermore, it has been found that excessive private tutoring leads to the loss of self-initiated learning ability and student creativity. Thus, this research aims to examine the effect of family income on self-regulated learning ability and academic achievement mediated by school learning activities and the private tutoring hours of adolescents. This study aims to understand whether participation in learning activities at school and private tutoring differs in accordance with income and to observe the mediator effect of school learning activities and participation in private tutoring on the influence of income on self-regulated learning ability and academic achievement. The purpose of this research is to offer a plan to improve self-regulated learning ability and the academic achievement of the adolescents.

2 Research Method

This research analyzes the data of the third-year panel of first-graders in Middle School from the Korean Children & Youth Panel Survey 2010, conducted by the National Youth Policy Institute. The longitudinal research model of the Korean Children & Youth Panel Survey 2010 is composed of repetitive follow-up surveys of three groups of panels (first-graders in Elementary School, fourth-graders in Elementary School, and first-graders in Middle School) on the actual conditions and changes in the growth and development of children and youths for 7 years, from 2010 to 2016. The independent variable of this research is family income, the mediating variable is school learning activities and private tutoring hours, and the dependent variable is self-regulated learning activity and academic achievement.

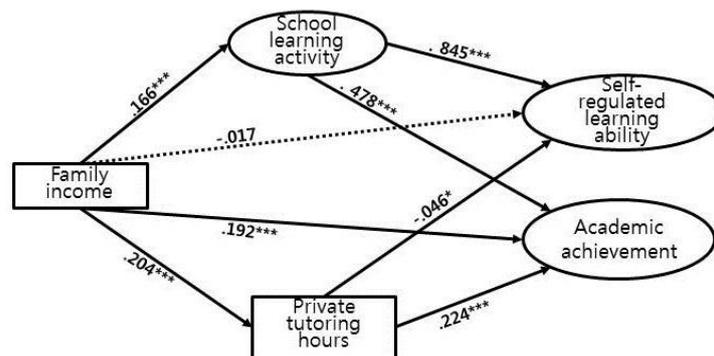
A structural equation model was used for the analysis of the effect of family income on self-regulated learning activity and academic achievement mediated by school life and time spent in private education, while SPSS 18.0 and Amos 18.0 were used for the analysis.

3 Research Results

The analysis results of the structural model for the effect of family income on self-regulated learning activity and academic achievement through the medium of school learning activities and private tutoring hours are illustrated in Fig. 1. The goodness-of-fit index for this structural model is Chi-square=805.641, NFI=.927, TLI=.902, CFI=.934, RMSEA=.062. This proves that it is appropriate for the data of the population.

Once each path coefficient is closely observed, family income was found to be significantly positive for the effect on school learning activities. It was also significantly positive for the effect on private tutoring hours. However, the direct effect of family income on self-regulated learning ability was not significant, while the effect on academic achievement was significantly positive. In other words, adolescents from families with a higher income tend to participate more in school learning activities, receive more private tutoring, and show higher academic achievement. Nevertheless, self-regulated learning ability, which represents the ability to lead in setting the objective of learning and to participate in learning, appears not to be influenced by family income.

The influence of the intervening variable is observed next. It appeared that school learning activities had a significant positive effect on both self-regulated learning ability and academic achievement, while private tutoring hours had a negative effect on self-regulated learning ability, but had a positive effect on academic achievement. Therefore, the students who participate actively in school learning activities show a high level of self-regulated learning ability and academic achievement, while the students who spend a lot of their time in private tutoring show a high level of academic achievement, but a lower level of self-regulated learning ability.



***p<.001, **p<.01, *p<.05
 Chi-square=805.641***(df=81), NFI=.927, TLI=.902, CFI=.934, RMSEA=.062

Fig.1. Structural model

4 Conclusion

As private tutoring is recognized as a positive factor in academic achievement, expenditure and time spent in private tutoring are constantly increasing. As a result of close observation on the effect of family income on school learning activities and the private tutoring hours of adolescents, this research reveals that students from families with a higher income participate more actively in class activities, such as completing homework more thoroughly and understanding what is taught in class, and spend more time in private tutoring. In addition, they tend to participate more actively in school learning activities and show a higher level of academic achievement. Thus, the study results that adolescents from families with a higher income work harder at school, spend more time in private tutoring, and receive better scores support the results of the preceding research that the financial deficiency of a family has an impact on the academic performance of the adolescent.

However, the results on self-regulated learning ability are slightly different. The students who spend more time in private tutoring tend to have lower self-regulated learning ability, while the students who participate actively in school learning activities tend to have higher self-regulated learning ability. Self-regulated learning ability becomes the preceding factor of high achievement by adapting one's behavior to the environment. The results of this research show that the students who spend a lot of time in private tutoring can improve their academic performances in a short time through the cramming method, but their ability to continue in their studies by regulating themselves declines. On the other hand, students who participate in school learning activities tend to receive better scores, while improving their self-regulated learning ability as well. Therefore, the support of private tutoring is necessary to improve the academic performance of students from poor families, but it is more important that they should be supported to be interested in studying and to participate more in public education.

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