

## Urban and Rural Family Background and Parental Educational Involvement of Primary School Students

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### Abstract

Based on the reality of significant difference in the academic achievement of urban and rural students in Dujiangyan City, and the analysis of existing literature, this study deduces that the factor behind the difference in the academic achievement of urban and rural students in Dujiangyan City is the significant difference in family factors between urban and rural areas, and proposes the hypothesis that there is a significant difference in the family backgrounds of urban and rural primary school students and in the educational involvement of their parents. In this study, one primary school in each urban and rural area was selected for sampling and 346 valid questionnaire

answers were obtained. Cross-tabulation analysis and independent samples t-test for each variable by school showed that there is a significant difference between family background and parental educational involvement of students in urban and rural schools, with students in urban schools being significantly better than students in rural schools. In the demographic data, there were no significant differences in the proportion of students by gender and the proportion of only children, but the proportion of children left behind and the proportion from single-parent families were significantly higher in rural than in urban areas.

**Keywords:** Urban, Rural, Family Background (FBG), Parental Educational Involvement (PEI), Primary School Student

### INTRODUCTION

The scores of students in primary schools in Dujiangyan City vary greatly among schools. The main difference is reflected in the gap between urban and rural students (Dujiangyan City Education Bureau, 2023) (Table1). Rural areas scored 8.6 fewer points in Chinese, 11.4 fewer points in math, 14.5 fewer points in English, and 34.5 fewer points in the total average score compared to urban areas.

Table 1: Dujiangyan city urban and rural students' academic achievement comparison (June 2023)

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| School category | average score in Chinese | average score in mathematics | average score in English | overall average score |
|-----------------|--------------------------|------------------------------|--------------------------|-----------------------|
| city-wide       | 85.2                     | 83.1                         | 84.8                     | 253.1                 |
| urban area      | 87.5                     | 85.2                         | 88.0                     | 260.7                 |
| rural area      | 78.9                     | 73.8                         | 73.5                     | 226.2                 |

(Source: Dujiangyan City Education Bureau, 2023)

After 2008, all schools in Dujiangyan City were rebuilt by the Government in accordance with modern standards and equipped with materials in accordance with national modernization standards. These schools are equipped with standard laboratories, art rooms, music rooms, technology rooms, canteens and dormitories. School teachers are fully equipped according to the national standards of the system, with the number in rural areas slightly higher than in urban areas. In recent years, many highly educated, above-standard teachers have been brought in to join them. The school finance is fully funded by the government. On this basis the Dujiangyan City Government increases and updates the appropriate equipment and software every year in line with the development of the times. In the case that both urban and rural schools are standardized and equipped with the same hardware and teachers, there is still a significant difference in students' academic performance, so this study turns the analysis to the students' family factors.

### LITERATURE REVIEW

It has been shown that family factors have a close correlation with students' academic achievement (AA), especially family background (FBG) factors represented by the family's socio-economic status (SES), and parental educational involvement (PEI), which significantly influence students' AA.

First, FBG has a significant effect on students' academic performance.

The fact that family structure influences children's well-being has been proved by many studies (Downey, 1994; Radl, Salazar, & Cebolla-Boado, 2017; Thompson, Alexander, & Entwisle, 1988). Single parenthood and left-behindness create parental absence in children's education, in both, Zhang, Behrman, Fan, Wei, and Zhang (2014) and Wu and Zhang's (2017) studies, the findings are consistent that parental absence has significant negative effects on the rural primary school students' AA. Compared to children who live with two parents, those who live with a single parent suffer lower achievement levels (Lasasi, Hassan, & Abdulkareem, 2024; Wu & Zhang, 2017; East et al. 2006; Pong et al., 2003).

A large body of research has explored how different levels of family SES can differentially affect children's AA. The level of education of the parents, parental occupational prestige, and family income are the three most common measures of family SES used by researchers (e.g., Bodovski, 2010; Han, 2014; Schulz, Schunck, Diewald, & Johnson, 2017). The level of education of the parents, in family life, has the greatest impact on students' AA; the more educated the parents are, the better the children's AA (Mohammed, Khedr, AlHaj, Khalifa & Zeki, 2021, Idris, Hussain, & Ahmad, 2020). The findings of Kaya and Selvitopu (2023) showed that parents' SES has a significant effect on students' AA. Groups of adolescents with different SES and family environments differ in terms of emotional intelligence, academic stress and AA (Naushad, 2022). In the UK, children from low-

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income families drop out of school and work earlier (Fritzell & Henz, 2021), and they generally have lower educational attainment than children from wealthier families (Koball, Moore & Hernandez, 2021). Differences in family SES account for differences in family educational resources (Chiu & Chow, 2015; Roscigno & Ainsworth-Darnell, 1999), with high-status students having more family educational resources and being more likely to achieve well academically than low-status students (Chiu & Chow, 2015; Long & Pang, 2016). Material resources available in the home, such as specific desks for study, books, computers, and internet access, affect students' AA (OECD, 2017).

Second, PEI also has a significant effect on students' AA.

Parents' educational expectations (Jeynes, 2024), parent-child communication, and home-based educational styles affect students' AA to varying degrees (Zhu, 2018). The results of Kaya and Selvitopu's (2023) study showed that home environment factors such as home cultural adaptability, parents' expectations, and home-based parental involvement, have a significant effect on students' AA (Kaya & Selvitopu, 2023). Intermittent contact with teachers and direct involvement with children also serve a monitoring function, allowing parents to receive feedback on their children's academic performance and self-regulation skills (Addi-Raccach, & Grinshtain, 2022; Coleman, 1983). Piaget's cognitive theory suggests that children in the early grades are in the concrete thinking stage, and as they grow older and more experienced, they will progress to the abstract thinking stage. However, the development of abstract thinking still requires the support of experience, and homeschooling is an integral part of thinking development (Ondog & Kilag, 2023, Rabillas, Kilag, Cañete, Trazona, Calope & Kilag, 2023). The relationship between PEI and AA does not vary significantly by curricular area, school level, and geographic region (Ates, 2021). Parents should provide the appropriate type of support to their children at different stages of development (Cui, Wang, Liu & Liu, 2023), and increased PEI has a greater impact on poorer and lower SES children, who make better use of parental involvement and, to some extent, improve AA (Şengönül, 2022). Li and Qiu (2018), using a national sample of 10- to 15-year-old children in mainland China, found that children living in rural and urban areas had uneven AA in language and math. Lower family SES is a main reason rural students are at a disadvantage in AA.

Based on the actual situation of urban and rural education in Dujiangyan City and the analysis of relevant existing literature, this study concludes that the factor behind today's disparity in AA between urban and rural students is the significant difference in family factors between urban and rural areas, and therefore proposes the hypothesis that there is a significant difference in the FBG and PEI between urban and rural primary school students.

### METHODS

The purpose of this study was to investigate the differences in FBG and PEI between urban and rural primary school students and to formulate the hypothesis that there is a significant difference in FBG and PEI between urban and rural primary school students. Data for this study was collected by distributing questionnaires. The questionnaire was distributed online through Questionnaire Star, and parents accessed the questionnaire page through a QR code shared on their cell phones and completed the questionnaire on their own. The questionnaire consisted of three parts: demographic data, FBG, and PEI. In this study, data was collected

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through a self-report questionnaire. The questionnaire was divided into three parts: demographic data, FBG and PEI. The demographic data had four questions: 1. your child's gender (1. female, 2. male), 2. Is your child left behind? 3. Is your child an only child? 4. Is it a single parent family? The options are 1. yes, 2. no.

Common indicators of FBG such as the level of education of the parents, parental occupation and family income were used as variables in this study. There were eight questions on FBG in this study. 5. The highest education level between you and your spouse. There are five answers based on the current common level of qualifications, from lowest to highest. (1. Primary school and below, 2. Junior middle school, 3. High school, vocational high school, technical high school, 4. Junior college, undergraduate course, 5. Graduate student or above). 6. Highest occupation between you and your spouse. For the study, based on Li's (2005) study of socioeconomic indices of occupation in contemporary China, responses to parental occupational status were recorded as an ordinal range from 1 to 5. The five options were ranked from low to high (1. Unemployed or farmer, 2. Production and manufacturing general workers skilled workers (including drivers) and service industry general workers, 3. Self-employed commercial, 4. Teachers, engineers, doctors, lawyers, middle and senior managers of enterprises/companies, 5. Leaders and staff of state institutions and agencies other). 7. Your family's annual income, with five options (1. Below ¥30,000, 2. ¥30,000-80,000, 3. ¥80,001-150,000, 4. ¥150,001-300,000, 5. Above ¥300,000). 8. The number of cars your family owns, with five options (1. None, 2. One, 3. Two, 4. Three, 5. Four and more). 9. Expenditure on children's studies (other than tuition fees) in a semester. Set five levels of options based on the overall economic consumption level of modern Dujiangyan City (1. Below ¥1000, 2. ¥1000-2000, 3. ¥2001-4000, 4. ¥4001-6000, 5. Above ¥6000). 10. Your family's book collection (except textbooks and magazines). Five hierarchical levels of options are set from less to more (1. <50 books, 2. 50-100 books, 3. 101-200 books, 4. 201-300 books, 5. >300 books). 11. Does your child have a separate desk, and 12. Do you have a computer (including tablet PC) at home? The two questions have two options 1. No and 2. Yes.

The PEI is measured using a scale consisting of six questions, as follows. 13. The extracurricular books (e.g., fairy tale books, popular science books, masterpieces, etc.) in your home will be updated according to the different needs of your child's age group? 14. Do you buy books for your children or take them to libraries and museums? 15. How often do you study at home (e.g., reading the newspaper, work, hobbies, etc.)? 16. Will you accompany your child in his/her studies? 17. Do you help your child with his/her homework? 18. Do you participate in school activities (e.g., parents' open day, competitions, school volunteers)? The answer choices were all on a five-point scale (1. never, 2. seldom, 3. sometimes, 4. often, 5. always).

In this study, two schools in Dujiangyan City were chosen, one rural school, Xiang E Primary School (Xiang E), and one urban school, You Ai Primary School (You Ai). Students in the rural school basically underperform the urban school in the annual uniform test in Dujiangyan. The grade level for the annual uniform test is the sixth grade, and for comparison, the sixth-grade students were selected for sampling in this study. Due to the small number of sixth grade students in the two schools, this study took a full sample and distributed questionnaires to parents through Questionnaire Star. In the end, Xiang E Primary School received 120 completed results, excluding 9 duplicates and 2 randomly filled out, 109 valid questionnaires, and You Ai Primary School received 267

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completed results, excluding 15 duplicates and 15 randomly filled out, 237 valid questionnaires, for a total of 346 valid questionnaires.

### DISCUSSION

Existing results support the hypothesis that there is a significant difference in FBG and PEI between students in urban and rural schools, with students in urban schools (You Ai) significantly outperforming students in rural schools (Xiang E). This finding is consistent with previous studies, Li and Qiu (2018) found that the AA of students living in rural and students living in urban areas had imbalanced AA in language and math, with lower family SES being one of the main reasons for the disadvantaged AA of rural students. In addition, there were no significant differences in the demographics of the students' gender ratio and the proportion of only children, but the proportion of left-behind children and the proportion of children from single-parent families were significantly higher in the rural school (Xiang E) than in the urban school (You Ai). The results of the data analysis in this study combined with the statistical results of the Dujiangyan unified monitoring of school achievement (Table 1), it can be hypothesized that the significant differences in FBG and PEI between urban and rural students will have a corresponding positive effect on students' AA. Established studies also support the above hypothesis that FBG and PEI significantly constrain students' achievement. In family life, the level of parents' education, has the greatest impact on students' AA, the more educated the parents are, the better the children's AA (Mohammed, Khedr, AlHaj, Khalifa & Zeki, 2021). The results of the study by Kaya and Selvitopu (2023) showed that parental SES has a significant effect on students' AA. There are differences in AA among groups of adolescents with different SES and family environments (Naushad, 2022). Home cultural adaptation, parental expectations and home-based parental involvement have a significant effect on students' AA (Kaya & Selvitopu, 2023). Intermittent contact with teachers and direct involvement with children also serve a monitoring function, allowing parents to receive feedback on their children's AA and self-regulation skills (Addi-Racciah, & Grinshtain, 2022; Coleman, 1983). Single parenthood and left-behindness create parental absence in the education of their children, and these absences have a significant negative impact on the AA of rural primary schoolchildren (Zhang, Behrman, Fan, Wei, and Zhang, 2014; Wu & Zhang's, 2017).

Given the existence of realistic differences and the fact that the FBG differences among them are difficult to change in a short period of time, we should focus more on the adjustment of the easy-to-change factors when focusing on the achievement of rural students, such as: the government's investment in rural education, the improvement of the efficiency of school management, the improvement of the school environment, the improvement of teachers' educational behaviors and the improvement of teacher's competence, and ultimately, with these easy-to-change factors that can affect the students' AA to The disadvantages of family factors should be synthesized; and parents should be actively guided to invest more time and energy in their children's learning and growth when there is no way to change their FBG. Parents should provide appropriate types of support to their children at different stages of development (Cui, Wang, Liu & Liu, 2023), such as accompanying their children, influencing their children to learn positively at home, participating in school-organized activities related to their children, and preferring cultural, historical, and educational destinations when going out to play. Increased PEI has a greater impact on poorer and lower SES children, who make better use of PEI and, to some extent,

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improve their AA (Şengönül, 2022). The relationship between PEI and AA did not differ significantly by curriculum area, school level, and geographic region (Ates, 2021).

### CONCLUSION

There are two limitations of this study: Firstly, one limitation of this study is the representativeness of the sample. The target population of this study is primary school students within Dujiangyan City, and the scope of sampling is only two schools in Dujiangyan City, one in the urban area and one in each rural area. Therefore, its representativeness is correspondingly limited, and the results of this study can necessarily only be used and referred to in similar urban and rural contexts. Secondly, another limitation is the difference between countries and regions. In different countries and regions, different populations living in urban and rural areas will lead to differences in the results of the study, or even diametrically opposite results, especially in terms of race, religious beliefs, and the country's degree of development, which will ultimately lead to the results of the survey on the differences between urban and rural FBG to show a huge difference. Of course, the results of this study can only be applied to countries and regions with similar development backgrounds as China's at this stage.

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