

## THE IMPACT OF PARENT-SCHOOL COMMUNICATION ON STUDENTS' SELF-EFFICACY: A CASE STUDY OF K PRIMARY SCHOOL IN KUNMING CITY, YUNNAN PROVINCE, CHINA

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### Abstract

This study, based on Bandura's (1997) self-efficacy theory, focuses on the current state of parent-school communication, at K Primary School in Kunming, Yunnan Province. It explores the impact of communication frequency, methods, and content on students' academic self-efficacy. Using a stratified random sampling method, 323 elementary school students were selected from a total population of 1,667. Data were collected through a revised self-efficacy scale and analyzed using statistical software for descriptive statistics, correlation analysis, and regression analysis. The results indicate that the frequency, methods, and content of parent-school communication all have a significant positive impact on students' self-efficacy. This study provides empirical evidence for optimizing parent-school collaboration mechanisms and supporting students' psychological development.

**Keywords:** Parent-school Communication, Self-efficacy, Primary School

### Introduction

Parent-school communication has always been a topic of great concern in the field of education, especially in the process of students' learning and psychological development. The interaction between parents and schools plays an indispensable role in students' growth. In recent years, with the increasing demands for educational quality and the enhancement of family education awareness, the forms and content of parent-school communication have been continuously evolving and enriching. More and more studies have found that parent-school communication not only promotes students' academic progress but also effectively enhances their mental health and self-awareness, particularly during the primary school years.

Internationally, research on parent-school communication has deeply explored its impact on students' academic performance, emotional health, and self-efficacy. In recent years, scholars have paid more attention to the multidimensionality of parent-school communication, particularly the specific effects of communication quality, frequency, and parental involvement on students' development. Active parental involvement can not only enhance students' academic confidence but also improve their self-efficacy (Fan & Williams, 2022). Specifically, high-quality parent-school communication can help students build confidence, develop problem-solving skills, and enhance their psychological resilience when facing academic challenges.

In addition, research on self-efficacy has gained increasing attention. Self-efficacy is defined as an individual's belief in their ability to complete specific tasks. Bandura (1997)

pointed out that individuals with high self-efficacy often exhibit higher motivation and better academic performance. Recent studies have further shown that parent-school communication can influence students' self-efficacy, thereby having a profound impact on their academic achievement and behavior (Martin & Collie, 2020). For example, Gonzalez et al. (2021) found that parents' recognition and support of school education significantly enhanced students' academic motivation and goal-setting by improving their self-efficacy.

In China, research on parent-school communication has made significant progress in recent years. Studies have found that the frequency and quality of parent-school communication are positively correlated with students' academic performance (Li, 2020). Parent-school communication is not limited to academic feedback but also includes parental involvement in students' behavior and emotional support, which has a significant impact on students' mental health and self-efficacy. Empirical studies on primary school students have shown that parental support and school interaction can significantly enhance students' self-efficacy, thereby improving their academic performance and social adaptability (Zhang, 2022).

In recent years, domestic scholars have also begun to emphasize the impact of parent-school communication satisfaction on students' psychological and behavioral development. The consensus reached between parents and schools during communication, as well as parents' satisfaction with the school, can significantly enhance students' self-efficacy, particularly in terms of self-management and learning motivation. Research indicates that the support and recognition students feel during parent-school communication can strengthen their self-identity, making them more confident when facing academic challenges.

Although research on parent-school communication and self-efficacy has accumulated both domestically and internationally, there are still some research gaps and limitations:

**Insufficient Multidimensional Research on Parent-School Communication Satisfaction:** Most current studies focus on the frequency of parent-school communication or the level of parental involvement, lacking in-depth exploration of the multidimensional aspects of parent-school communication satisfaction (Wang & Chan, 2020). Parent-school communication satisfaction is not only influenced by the content of communication but also by factors such as communication methods, feedback quality, and the emotional attitudes of parents and teachers. These aspects require further research.

**Cultural Differences in Self-Efficacy:** Most studies on self-efficacy have focused on Western cultural contexts, while domestic research has rarely explored the influence of cultural factors on self-efficacy. In particular, how parent-school communication affects students' self-efficacy in the specific educational environment of China has not been fully theoretically explored (Liu & Guo, 2023).

**Limitations in Data and Samples:** Many studies have limitations in sample selection, particularly the lack of large-scale, long-term empirical research, which affects the generalizability of the conclusions (Chen & Zhang, 2022). Therefore, future research needs to adopt more extensive and diverse samples to improve the reliability and applicability of the findings.

## **Research Objectives**

1. To study the impact of Parent-School Communication frequency on Students' Self-Efficacy.
2. To study the impact of Parent-School Communication methods on students' sense of self-efficacy.

3. To study the impact of Parent-School Communication content on students' sense of self-efficacy.

### Scope of the Research

#### Variable Scope



Figure 1 Research framework on Parent-School Communication and Students' Self-Efficacy

#### Hypotheses

H<sub>1</sub>: The frequency of Parent-School Communication is positively correlated with Students' Self-Efficacy.

H<sub>2</sub>: The methods of Parent-School Communication is positively correlated with Students' Self-Efficacy.

H<sub>3</sub>: The content of Parent-School Communication is positively correlated with Students' Self-Efficacy.

### Literature Review

#### Parent-School Communication Theory

The theory of parent-school communication emphasizes the importance of interaction between parents and schools in students' development. Effective parent-school communication can enhance students' learning motivation and academic performance. Research shows that the frequency and quality of parent-school communication have a significant impact on students' development. Active parental involvement not only strengthens students' academic confidence but also improves their self-efficacy.

#### Self-Efficacy Theory

Self-efficacy refers to an individual's belief in their ability to complete specific tasks. Bandura (1997) pointed out that individuals with high self-efficacy often exhibit higher learning motivation and better academic performance. Studies indicate that parent-school communication can significantly enhance students' self-efficacy, thereby profoundly influencing their academic achievements and behavior.

### Research Methodology

#### 1. Population and Sample

According to the latest statistics from the Yunnan Provincial Institute of Educational Sciences, as of August 2024, there were 9,913 primary schools in Yunnan Province, covering a wide range of urban and rural areas, reflecting the diversity and complexity of basic education in Yunnan Province. This study randomly sampled from these primary schools and finally selected K Primary School in Kunming, Yunnan Province as the research site.

The quantitative sample size was 1,667 students from the first to sixth grade of the elementary school. Using the sampling formula Taro Yamane (Yamane, 1973), the final sample size was 323. The questionnaire was distributed using the online question-and-answer method of Questionnaire Star, and a total of 323 questionnaires were collected, with 323 valid questionnaires and an effective recovery rate of 100%.

## **2. Research Instrument**

In this study, the questionnaire survey method was used as the main data collection tool. The questionnaire survey method is a quantitative research method that collects information about the attitudes, behaviors, and characteristics of a specific group of people by issuing a structured questionnaire. The questionnaire design of this study includes the following steps:

First, we developed a preliminary framework for the questionnaire based on the research purpose and research questions. The questionnaire is divided into two parts. The first part collects basic information of the respondents, including age, gender, grade, etc. The second part focuses on variables related to Parent-School Communication, including learning motivation, learning ability, learning attitude, etc. In order to ensure the validity and pertinence of the questionnaire content, we consulted relevant literature and referred to existing mature scales.

Secondly, to improve the reliability and validity of the questionnaire, we invited three experts in the field of education to review the questionnaire. The experts put forward constructive suggestions on the content, language expression, and structure of the questionnaire. Based on the feedback from the experts, this study conducted a preliminary test on the questionnaire and finally formed a formal questionnaire.

In terms of sample selection, this study conducted a survey of families in K Primary School in Kunming, Yunnan Province. The quantitative sample was 1,667 students from the first to sixth grade in primary school, and the sample size was 323 people using the Taro Yamane sampling formula. The sample size was determined based on statistical principles to ensure that it can reflect the overall situation and improve the representativeness and generalizability of the results.

The data collection process was divided into three stages. First, we distributed questionnaires through online platforms (such as Wenjuxing & Wenjuwang), and promoted them through the school's academic affairs system and student organizations to mobilize students to participate in the survey. After the questionnaires were distributed, we set a three-day deadline for filling them out, and during this period, we used various methods to remind and follow up to increase the questionnaire recovery rate. After the data collection was completed, we screened and sorted all the returned questionnaires, and collected a total of 323 questionnaires. In the end, we obtained a total of 323 valid questionnaires, with an effective recovery rate of 100%.

In terms of data analysis, we used Statistical Software software to conduct detailed statistical analysis on the collected data. The analysis steps include data entry and cleaning, descriptive statistical analysis, reliability and validity tests, correlation analysis and regression analysis. Descriptive statistical analysis is used to describe the basic characteristics of the sample and the distribution of each variable; reliability and validity tests are used to evaluate the reliability and effectiveness of the questionnaire; correlation analysis and regression analysis are used to explore the relationship and influence of each variable.

The questionnaire survey method has the advantages of being able to collect a large amount of data, being easy to operate, and having low costs, but it also has some limitations,

such as low questionnaire recovery rate and possible deviations in questionnaire design. This study minimized the impact of these limitations on the research results through a rigorous design and implementation process. Overall, the questionnaire survey method provided us with rich and valuable data support, which helped us to deeply understand the self-efficacy of primary school students and its influencing factors.

In this study, we used the General Sense of Efficacy Scale (GSES) revised by Bandura (1997) for the questionnaire survey. This study will revise it based on the Chinese cultural background, and its reliability and validity have been verified in many studies. The General Sense of Efficacy Scale (GSES) has a total of 10 items.

Specifically, the learning motivation index evaluates the intensity of students' intrinsic and extrinsic motivation in the learning process; the teaching model index measures the impact of teaching methods and teaching resources on students' learning adaptability; the learning ability index mainly examines students' abilities in knowledge mastery, skill application and learning strategies; the learning attitude index focuses on students' attitude, interest and involvement in learning; and the environmental factor index evaluates the impact of school and family environment on students' learning adaptability.

Respondents choose from "completely inconsistent" to "completely consistent" according to their actual situation. After data collection, Statistical Software analysis method will be used to process the data to explore the impact of different variables on primary school Students' Self-Efficacy.

After the preliminary questionnaire design was completed, the research team conducted a small-scale test, collected feedback data, and modified and improved the questionnaire to ensure the suitability of the items and the accuracy of the language. Subsequently, the research team selected different regions and different types of primary school students across the country for large-scale testing, and verified the reliability and validity of the scale through data collection and statistical analysis.

In research literature and scales, the Index of Item-Objective Conformity (IOC) is a method used to evaluate the validity of questionnaire or scale items. IOC is usually used when experts review questionnaires. Experts score each item based on its objectives and content to determine whether each item meets the research objectives. In this study, in order to ensure the validity of the questionnaire, three experts in the field of education were invited to review the questionnaire. The experts put forward constructive suggestions on the content, language expression, and structural arrangement of the questionnaire, and evaluated each item with the Index of Item Objective Conformity (IOC).

### 3. Data Collection

First, a small-scale pre-test was conducted to determine whether the Learning Adaptation Scale was suitable for primary school students. 323 questionnaires were randomly distributed and 323 questionnaires were collected, with a collection rate of 100%. The reliability analysis was performed using the online Statistical Software Questionnaire Star, and Cronbach's  $\alpha$  coefficient was 0.847 (greater than 0.8), indicating that the questionnaire had a high reliability.

Next, a questionnaire survey was conducted on 1,667 students, using the questionnaire star question-and-answer method. According to the sample sampling formula Taro Yamane, the allowable error rate was 5%, and the final sample size required was 323 people. A total of 323 questionnaires were collected, and finally 323 questionnaires were determined to be valid questionnaires. The effective response rate was 100%.

#### **4. Data Analysis**

In order to ensure the effectiveness of the use of this study, three experts with rich teaching experience and research fields related to teaching from different schools in China were invited to evaluate the overall content consistency index of the questionnaire. The experts evaluated the Index of Item-Objective Congruence (IOC) for each item in the questionnaire. The results showed that the consistency index of the questionnaire content in this study ranged from 0.67 to 1.00, which was higher than the standard index of 0.5 Hambleton, R.K. (1977), indicating that the overall content consistency of the questionnaire was high.

In this study, a detailed descriptive statistical analysis was conducted on the basic information of primary school students (such as gender and grade). Descriptive statistical indicators include mean, median, standard deviation, frequency and percentage to fully understand the basic characteristics of the sample. The mean and standard deviation are used to measure the central tendency and dispersion of continuous variables, the median is used to describe the middle value of the data, and the frequency and percentage are used to show the distribution of categorical variables.

Subsequently, Pearson's correlation analysis was used to test the linear correlation between variables. Specifically, the correlation between Parent-School Communication and Students' Self-Efficacy was analyzed. The correlation coefficient is used to quantify the strength and direction of the correlation between two continuous variables. The correlation coefficient ranges from -1 to 1, where values close to 1 or -1 indicate strong correlation and values close to 0 indicate no correlation.

In order to further explore the impact of Parent-School Communication on Students' Self-Efficacy, multiple regression analysis was conducted. In the regression model, the frequency of Parent-School Communication, the method of Parent-School Communication, and the content of Parent-School Communication are used as independent variables, and Students' Self-Efficacy is used as the dependent variable. The degree of influence of each independent variable on the dependent variable is measured by regression coefficients, and whether these effects are statistically significant is determined by significance test (p value). In addition, the coefficient of determination ( $R^2$ ) was calculated to evaluate the explanatory power of the regression model, that is, the proportion of variation in the dependent variable that the independent variables can explain.

Through the above data analysis methods, we can comprehensively understand the basic situation of the research sample, identify the correlation between variables, and determine which factors have a significant impact on primary school Students' Self-Efficacy, thereby providing an empirical basis for further theoretical research and practice.

#### **Research Results**

In this part of the paper, data is used to analyze the impact of Parent-School Communication on Students' Self-Efficacy. In addition, the differences in self-efficacy among students of different grades and genders are examined. Ultimately, the results support the hypotheses proposed in this paper and provide clear recommendations for education policymakers.

Table 1: The impact of the frequency of Parent-School Communication

ANOVA results						
6*3. How many times do your parents communicate with the school every week? (mean ± standard deviation)					F	p
0 times (n = 99)	1-2 times (n = 173)	3-4 times (n = 37)	5 times (n = 14)			
Self- efficacy	2.94±0.59	3.11±0.58	3.26±0.60	3.81±0.18	10.759	0.000**

\*  $p < 0.05$  \*\*  $p < 0.01$

The variance analysis results of the above primary school Students' Self-Efficacy can be interpreted from the following aspects: The numerical differences of self-efficacy under different communication frequencies

Table 2: The impact of Parent-School Communication methods

ANOVA results						
7*4. Which of the following Parent-School Communication methods do you prefer? (mean ± standard deviation)					F	p
One-on-one face-to-face communication (n = 71)	Communication by phone or text message (n = 96)	Social software (QQ, WeChat) (n = 109)	Class parent meeting (n = 47)			
Self- efficacy	3.39±0.47	3.05±0.61	3.04±0.60	2.94±0.61	7.56	0.000**

\*  $p < 0.05$  \*\*  $p < 0.01$

The following is an interpretation of the above-mentioned variance analysis results on primary school Students' Self-Efficacy and Parent-School Communication methods: Numerical differences in self-efficacy under different communication methods

Table 3: The impact of Parent-School Communication content

ANOVA results							
8*5. What is the main content of communication between your parents and the school? (mean ± standard deviation)							
	Learning (n = 121)	Behavior (n = 100)	Classmate relationship (n = 43)	Health problems (n = 21)	Emergency (n = 38)	F	p
Self- efficacy	3.18±0.54	3.19±0.54	3.13±0.57	2.64±0.71	2.89±0.73	5.651	0.000**

\*  $p < 0.05$  \*\*  $p < 0.01$

### Discussion

Based on the analysis results of this chapter, the research hypotheses are tested in turn, and the results are reported as follows:

H<sub>1</sub>: The frequency of Parent-School Communication is positively correlated with Students' Self-Efficacy, and this hypothesis is established.

H<sub>2</sub>: There is a positive correlation between Parent-School Communication style and Students' Self-Efficacy, and this hypothesis is established.

H<sub>3</sub>: There is a positive correlation between the content of Parent-School Communication and Students' Self-Efficacy, and this hypothesis is established.

In summary, the analysis results of this study provide important reference for improving Parent-School Communication and Students' Self-Efficacy in educational practice, and propose effective strategies to promote the development of Students' Self-Efficacy. First, through a detailed analysis of the frequency of Parent-School Communication, this study found that the frequency of Parent-School Communication has a significant positive impact on Students' Self-Efficacy. Specifically, increasing the frequency of Parent-School Communication, such as multiple times a week, can significantly improve students' sense of self-efficacy. This shows that when schools design and implement Parent-School Communication plans, they should focus on the continuity and frequency of communication and ensure regular interactions between parents and teachers to provide students with continuous support and attention.

Secondly, the research results show that Parent-School Communication methods also have a significant impact on Students' Self-Efficacy. Good communication methods, including one-to-one face-to-face communication, phone calls, text messages, and social software, can effectively improve Students' Self-Efficacy. Therefore, schools should pay attention to the diversification and personalization of communication methods and provide multiple communication channels to meet the needs of different parents and students. For example, for students with low self-efficacy or with special needs, one-on-one face-to-face communication is preferred to provide more in-depth and personalized support.

In addition, the content of Parent-School Communication also has a significant impact on Students' Self-Efficacy. Specifically, the communication content should comprehensively cover aspects such as learning, conduct, classmate relationships, health, and emergencies. Especially, communication on learning and conduct has a better effect on improving Students' Self-Efficacy. This reminds educators that they should consider the comprehensive development of students when formulating communication content and adopt differentiated communication strategies for different content. For example, for health problems and

emergencies, students should be given more psychological support, emphasizing their temporary nature and solvability, and helping students maintain a positive self-perception.

Through analysis of variance and regression analysis, this study also found that the frequency, method and content of Parent-School Communication have a statistically significant impact on Students' Self-Efficacy. The regression model explained 16.9% of the variance in Students' Self-Efficacy. This finding further emphasizes the critical role of Parent-School Communication in improving Students' Self-Efficacy. Therefore, schools should continue to pay attention to and improve Parent-School Communication, implement evidence-based educational interventions, and ensure that these factors are effectively applied in educational practice, thereby maximizing Students' Self-Efficacy and learning effects.

This study provides strong theoretical basis and empirical support for the practice of primary school education. It is recommended that schools promote Students' Self-Efficacy by optimizing the frequency, method and content of Parent-School Communication, thereby improving the quality of education and the overall development of students. These strategies will not only help improve students' academic success, but will also have a positive impact on their career development and lifelong learning abilities.

## **Recommendations**

Based on the findings and conclusions of this study, the following research recommendations are proposed to further optimize Parent-School Communication, enhance primary school students' sense of self-efficacy, and provide direction for future educational research.

**Optimizing Parent-School Communication Strategies:** Schools should encourage parents to maintain regular communication with teachers, and it is recommended that communication be conducted at least once a week. This can be achieved through a variety of methods such as parent-teacher conferences, phone calls, text messages, emails, or online platforms. For families with low communication frequency, schools should take the initiative to understand the reasons and provide more support and convenient communication channels, such as setting up special communication time and providing multilingual support.

Schools should provide multiple communication methods to meet the needs of different parents and students. Give priority to one-on-one face-to-face communication, especially for students with low self-efficacy or special needs. Improve the quality and depth of communication through phone calls, text messages, and social software, and avoid overly simplistic or fragmented information. For example, parents and teachers can discuss students' strengths and room for improvement in more detail during communication, and give targeted advice and encouragement.

The content of Parent-School Communication should comprehensively cover aspects such as study, conduct, relationships with classmates, health, and emergencies. In particular, communication on study and conduct has a better effect on improving students' sense of self-efficacy. For health problems and emergencies, students should be given more psychological support, emphasizing their temporary and solvable nature, and helping them maintain a positive self-cognition. At the same time, through communication on study and conduct, students' academic confidence and behavioral norms can be enhanced.

**Differentiated support for different student groups:** For male students, schools can strengthen their learning motivation and autonomous learning ability. For example, through personalized tutoring, group cooperative learning and project-based learning, their learning interest and self-confidence can be improved. For female students, their advantages can be

further strengthened, and more leadership and innovative thinking training opportunities can be provided to help them better realize their potential in academic and career development.

For lower grade students, schools should focus on the cultivation of basic learning abilities and learning habits. For example, through interesting teaching activities and parent-child interactive homework, their learning interest and self-efficacy can be improved. For higher grade students, more opportunities for independent learning and self-management can be provided to cultivate their independence and problem-solving abilities. For example, through project-based learning and research-based learning, their academic abilities and self-efficacy can be improved.

**Continuous Evaluation and Improvement:** Schools should regularly evaluate the effectiveness of Parent-School Communication, and understand the actual effect of Parent-School Communication through questionnaire surveys, parent satisfaction surveys, and student self-efficacy assessments. Based on the evaluation results, timely adjust and optimize Parent-School Communication strategies to ensure the effectiveness and sustainability of communication.

Schools should establish a feedback mechanism for parents and students to understand their needs and suggestions in a timely manner. For example, set up a parent suggestion box, hold regular parent seminars, etc., to collect feedback from parents and students. Based on the feedback information, timely adjust and improve the content and methods of Parent-School Communication to ensure the pertinence and effectiveness of Parent-School Communication.

**Future Research Directions:** Future research can use long-term tracking methods to explore the long-term impact of Parent-School Communication on primary school Students' Self-Efficacy. By collecting data at multiple time points, we can analyze the impact mechanism of Parent-School Communication on Students' Self-Efficacy at different stages. For example, we can track the entire learning process of students from primary school to junior high school, analyze the changes in Parent-School Communication at different educational stages and its continued impact on self-efficacy.

Future research can further explore the multidimensional impact of Parent-School Communication, including communication quality, depth and breadth of communication content, parental involvement, etc. For example, a mixed research method can be used to combine quantitative and qualitative data to comprehensively analyze the multidimensional characteristics of Parent-School Communication and its impact on Students' Self-Efficacy.

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