

## SCHOOL-FAMILY COLLABORATION AND ITS IMPACT ON STUDENTS' ACADEMIC ACHIEVEMENT: A CASE STUDY IN THE MUNICIPALITY OF KIČEVO

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### Abstract

This study examines the relationship between school-family collaboration and academic achievement in Albanian-language primary schools in the Municipality of Kičevo. Employing an explanatory sequential mixed-methods design, data were collected from 240 participants (80 teachers, 100 students, and 60 parents) across six schools. Quantitative data were analyzed using multiple linear regression, while qualitative data were examined through thematic analysis.

The quantitative findings indicate that the regression model is statistically significant and explains 52% of the variance in academic achievement ( $R^2 = .52$ ,  $p < .001$ ). Among the predictors, teacher–parent communication emerged as the strongest factor ( $\beta = .48$ ), followed by home support ( $\beta = .35$ ) and student motivation ( $\beta = .33$ ). The results suggest that student motivation may function as a potential mediating mechanism through which school-family collaboration contributes to improved academic outcomes; however, this mediating effect was not formally tested using statistical mediation techniques and should therefore be interpreted with caution.

The qualitative findings revealed that the main barriers to effective collaboration include time constraints (47%), unclear institutional guidelines (32%), and limited access to digital communication tools (13%). These challenges highlight structural and contextual limitations in fostering consistent school–family partnerships.

The study concludes that structured, systematic, and digitally supported collaboration between schools and families is essential for enhancing student achievement. The findings contribute to the literature by providing empirical evidence from a local context and by highlighting the importance of communication and parental involvement as key factors in educational success.

**Keywords:** school-family collaboration, academic achievement, mixed methods, teacher–parent communication, student motivation, primary education.

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### Introduction

Collaboration between school and family is considered one of the key determinants in improving learning outcomes and the holistic development of students. Contemporary studies emphasize that active parental involvement goes beyond logistical support, directly influencing the socio-emotional development and academic trajectory of the child. In this context, student success in primary education is not merely the product of classroom work but the result of continuous interaction between the two main pillars of education.

Theoretically, this research is grounded in Epstein's Theory of Overlapping Spheres (2018), which argues that student success results from a partnership in which school, family, and community share mutual responsibilities. This model is complemented by Bronfenbrenner's Bioecological Theory (1994), which highlights the importance of the mesosystem—the critical interaction between microsystems such as home and school—in shaping the individual. Recent international

reports (OECD, 2019; European School Education Platform, 2023) reaffirm that strong partnerships are associated with higher performance and lower dropout rates.

In the context of Albanian-language schools in Kičevo, this collaboration takes on particular importance. Faced with educational transitions and increasing demands for high academic performance, it is essential to analyze how teacher-parent communication and home support specifically influence student achievement in this region.

To understand this complex phenomenon, the study adopts a mixed-methods approach. As Creswell & Plano Clark (2018) emphasize, integrating the precision of quantitative data with the narrative richness of qualitative data provides a more comprehensive and in-depth analysis. The aim of this paper is to examine the relationship between collaboration dynamics and academic achievement in Kičevo, identifying structural and environmental barriers that hinder effective partnership in practice.

## 2. Methodology

*2.1 Research Design and Conceptual Model:* This study employs a mixed-methods approach using an explanatory sequential design. This design was selected to enable data triangulation: quantitative data were first collected through questionnaires, followed by a qualitative phase using focus groups to deepen the understanding of subjective mechanisms. The study focuses on examining relationships among variables rather than establishing causal pathways.

The conceptual model analyzes the impact of school-family collaboration (independent variables: teacher-parent communication and home support) on academic achievement (dependent variable: grades), with student motivation considered as a potential mediating variable. However, this mediating role is conceptual and was not empirically tested using formal mediation analysis techniques.

Based on this framework, the following hypotheses were formulated:

**H1:** There is a significant positive relationship between school-family collaboration and academic achievement.

**H2:** Systematic home support positively influences student motivation, which in turn contributes to academic achievement.

*2.2 Sample and Selection Procedure:* Participants (N = 240) were selected through a combination of purposive and convenience sampling. The research was conducted across six primary schools in the Municipality of Kičevo, ensuring representation from both urban and rural settings.

Table 1 presents the distribution of participants by school and role.

*Table 1. Distribution of Participants by School and Role*

| <b>Educational Institution (Location)</b> | <b>Teachers</b> | <b>Students</b> | <b>Parents</b> | <b>Total</b> |
|-------------------------------------------|-----------------|-----------------|----------------|--------------|
| “Sande Shterjoski” (Kičevo)               | 30              | 40              | 10             | 80           |
| “Milto Gurra” (Strellci)                  | 10              | 10              | 10             | 30           |
| “Gjergj Kastrioti” (Serbica)              | 10              | 15              | 10             | 35           |
| “Naim Frashëri” (Jagoll)                  | 10              | 10              | 10             | 30           |
| “Faik Konica” (Greshnica)                 | 10              | 10              | 10             | 30           |
| “Rexhë Rushit Zajazi” (Zajaz)             | 10              | 15              | 10             | 35           |
| <b>Total</b>                              | <b>80</b>       | <b>100</b>      | <b>60</b>      | <b>240</b>   |

The sample structure reflects a balanced representation of teachers, students, and parents, allowing for a comprehensive analysis of school-family collaboration from multiple perspectives.

### *2.3 Research Instruments:*

1. Quantitative Instruments: Likert-scale (1-5) questionnaires were used. Content validity was ensured by an expert panel. Reliability was confirmed through Cronbach's Alpha, which yielded 0.84 for the collaboration scale and 0.79 for motivation ( $\alpha > 0.70$ ).
2. Qualitative Instruments: Four focus groups with parents were conducted using a semi-structured guide to explore communication barriers and home practices.

### *2.4 Data Analysis:* Data were processed using SPSS (v.26) and complemented by manual thematic analysis.

For the quantitative component, Pearson correlation ( $r$ ) and multiple linear regression analyses were conducted to examine the relationships among variables and assess their predictive power on academic achievement. For the regression model, degrees of freedom were calculated as  $df(\text{residual}) = N - k - 1$ , where  $N = 240$  and  $k = 3$ , resulting in  $df = 236$ .

For the qualitative component, data from focus groups were analyzed using Braun and Clarke's (2019) six-step thematic analysis framework to identify key patterns and emerging themes.

To ensure the robustness of the regression model, basic diagnostic considerations were taken into account. Although multicollinearity was not formally assessed using Variance Inflation Factor (VIF), the observed moderate intercorrelations among predictors suggest that multicollinearity is unlikely to pose a serious concern. Future research is recommended to incorporate formal diagnostic tests such as VIF and tolerance levels for more rigorous validation.

Normality assumptions were assessed through skewness and kurtosis indicators, which fell within acceptable ranges ( $-1$  to  $+1$ ), indicating no significant deviation from normal distribution.

### *2.5 Research Ethics and Limitations:* Despite its contributions, this study has several limitations that should be considered when interpreting the findings.

First, the cross-sectional design limits the ability to establish causal relationships between variables. While strong associations were identified, longitudinal studies are needed to confirm causal pathways over time.

Second, the reliance on self-reported data introduces the possibility of social desirability bias, particularly among parents and teachers who may tend to provide more favorable responses.

Third, although the sample size is adequate ( $N = 240$ ), the study is geographically limited to the Municipality of Kičevo, which may affect the generalizability of findings to other regions.

Finally, the study did not employ advanced modeling techniques such as Structural Equation Modeling (SEM), which could provide a more precise estimation of mediating effects. Future research should address this limitation by applying more sophisticated analytical approaches.

## **3. Results**

A multiple linear regression analysis was conducted to test the predictive power of communication, home support, and motivation on academic achievement. The model was statistically significant,  $F(3, 236) = 85.22$ ,  $p < .001$ , explaining 52% of the variance in the dependent variable ( $R^2 = .52$ ).

Table 2. Regression Results Predicting Academic Achievement

| Predictive Variable          | B    | SE   | $\beta$ | t    | p      |
|------------------------------|------|------|---------|------|--------|
| (Constant)                   | 1.87 | 0.32 | –       | 5.84 | < .001 |
| Teacher-parent communication | 0.42 | 0.09 | .48     | 4.76 | < .001 |
| Home support                 | 0.31 | 0.08 | .35     | 3.87 | < .001 |
| Student motivation           | 0.28 | 0.07 | .33     | 3.65 | < .001 |

Note:  $R = .72$ ,  $R^2 = .52$ ,  $F(3, 236) = 52.41$ ,  $p < .001$ .

The regression results indicate that all predictors have a positive and statistically significant effect on academic achievement. Teacher-parent communication emerges as the strongest predictor ( $\beta = .48$ ), followed by home support ( $\beta = .35$ ) and student motivation ( $\beta = .33$ ).

While the overall model demonstrates strong explanatory power ( $R^2 = .52$ ), the individual t-values indicate moderate but statistically significant contributions of each predictor. This suggests that the explained variance is distributed across variables rather than concentrated in a single dominant predictor.

These findings highlight that academic achievement is influenced by a combination of external support mechanisms and internal student-related factors, confirming the multidimensional nature of educational outcomes.

**3.1 Group Differences and Effect Size:** A comparison between students with high and low levels of collaboration revealed significant differences in academic performance.

Table 3. Mean Grades by Level of Collaboration

| Collaboration Level | n  | M (Mean) | SD  | 95% Confidence Interval (CI) |
|---------------------|----|----------|-----|------------------------------|
| High Collaboration  | 60 | 4.2      | 0.3 | [3.95, 4.45]                 |
| Low Collaboration   | 40 | 3.4      | 0.5 | [3.10, 3.70]                 |

Note: Cohen's  $d = 1.95$ , indicating a very large effect size. Confidence intervals (CI) represent the mean estimates for each group.

The large difference in mean scores between the two groups ( $\Delta M = 0.8$ ), combined with a very large effect size (Cohen's  $d = 1.95$ ), indicates a substantial and educationally meaningful practical impact of parental involvement on academic performance. This magnitude of effect substantially exceeds conventional benchmarks for a large effect, suggesting that differences in collaboration levels are associated with pronounced variations in student achievement.

In practical terms, these findings highlight the importance of strengthening school–family partnerships as a key strategy for improving academic outcomes. However, it should be noted that these results are based on group comparisons and do not establish causal relationships. Future research employing experimental or longitudinal designs could provide deeper insights into the causal mechanisms underlying this association.

### 3.2 Hypothesis Testing and Qualitative Findings:

**Hypothesis 1 (H1):** Correlation analysis showed a strong positive relationship between collaboration intensity and achievement ( $r = .74$ ,  $p < .01$ ). Given the significant coefficient and the 0.8-point difference with a very large effect size (Cohen's  $d = 1.95$ ), H1 is fully supported, confirming a strong and statistically significant association between collaboration and academic achievement.

**Hypothesis 2 (H2):** Regression analysis indicates that systematic home support ( $\beta = .35$ ) and student motivation ( $\beta = .33$ ) are significant positive predictors of academic achievement. While

the results suggest that motivation may play an intervening role in the relationship between home support and academic achievement, this relationship was not formally tested using mediation analysis techniques (e.g., PROCESS macro or structural equation modeling). Therefore, any interpretation regarding mediation should be made with caution.

**Qualitative Findings (Barriers):** Thematic analysis of parent focus groups identified three main barriers to effective collaboration:

- Lack of time (47%), especially in urban areas such as “Sande Shterjoski.”
- Unclear institutional guidelines (32%), indicating the need for clearer school-level criteria.
- Lack of digital tools (13%), more prevalent in remote rural areas.

## 4. Discussion

*4.1 Interpretation of the Mechanism of Influence:* The results fully support H1, indicating a strong positive relationship ( $r = .74$ ) between collaboration intensity and grades. The regression model confirmed that structured communication is the most influential factor ( $\beta = .48$ ).

Regarding H2, the study suggests a potential mediating role for motivation, conceptually rather than statistically confirmed. Although formal Structural Equation Modeling (SEM) was not applied, the weight of motivation in the regression ( $\beta = .33$ ) indicates that parental support does not act in a merely mechanical way, but rather by fostering the student's internal engagement.

The regression model, explaining 52% of the variance ( $R^2 = .52$ ), demonstrates substantial predictive power within the context of social science research. The main result shows that structured communication carries the greatest weight ( $\beta = .48$ ), indicating that when teachers regularly inform parents, student success is significantly enhanced.

*4.2 Analysis of Differences and Effect Size:* Thematic analysis of the focus groups identified the primary barriers as a lack of time (47%) and unclear guidelines (32%). This suggests that the success of collaboration depends on simplifying processes and digitalizing communication.

A notable finding is the 0.8-point difference in average grades between groups. Students with active parents achieved an average of 4.2 compared to 3.4 for those with passive parents. The effect size of 1.95 (Cohen's  $d$ ) is exceptionally high, confirming that interventions aimed at improving parental collaboration have a direct and measurable impact on student success.

*4.3 Mediation through Motivation:* A unique contribution of this study is the identification of the indirect effect of communication through motivation ( $\beta = .33$ ). The findings suggest that when parents and teachers align expectations, students experience a more coherent environment, increasing psychological engagement. This sequential relationship (Collaboration  $\rightarrow$  Motivation  $\rightarrow$  Achievement) provides conceptual support for the role of motivation as an intervening variable, although it was not empirically tested in this study.

*4.4 Local Context and Practical Barriers:* While consistent with Epstein's model (2018), the results add important local nuances. Although willingness to collaborate is high, differences between rural areas (Zajaz, Sërbicë, Jagoll), where teacher-parent proximity is greater, and the urban area (Kičevo), where communication is more formal, highlight the need for structural changes. Challenges such as “lack of time” (47%) reflect the need for digital transformation in

communication. Parents' readiness to adopt online platforms, despite challenges, offers a pathway toward an "active partnership."

#### *4.5 Implications and Limitations:*

This research has several limitations to consider:

1. The cross-sectional design does not allow for the establishment of cause-and-effect relationships (causality).
2. The lack of advanced diagnostic tests (such as VIF for multicollinearity) suggests caution when interpreting the independence of predictors.

For future research, the use of Structural Equation Modeling (SEM) is recommended to precisely test the mediation pathways of motivation.

The study suggests that schools should shift from passive information-sharing to active partnership. However, the cross-sectional nature of the study warrants caution in causal interpretation. Future research should employ Structural Equation Modeling (SEM) to more accurately test mediating pathways over longer periods.

*4.6 Comparison with International Studies:* The findings of this study are largely consistent with international research on school-family collaboration. For instance, previous studies have demonstrated that structured parental involvement significantly enhances academic performance (Hill & Tyson, 2009; Jeynes, 2012). Similarly, the strong predictive role of teacher-parent communication identified in this study aligns with findings from OECD (2019), which emphasize communication as a central mechanism in improving student outcomes.

However, the relatively strong mediating role of student motivation observed in this research provides an additional layer of understanding. While many studies acknowledge motivation as a factor, fewer explicitly model it as an indirect pathway linking collaboration to achievement. This suggests that in the context of Kičevo, collaboration does not only provide academic support but also strengthens internal student engagement.

In contrast to some international contexts where institutional support systems are more developed, the barriers identified in this study-particularly time constraints and lack of structured guidelines-highlight the need for systemic improvements at the local level. This indicates that while the theoretical models are transferable, their practical implementation requires contextual adaptation. These findings have important implications for education policy in developing and transitional contexts, where institutional structures may be less formalized but interpersonal dynamics play a critical role in educational effectiveness.

## **5. Conclusions and Recommendations**

*5.1 Conclusions:* This study confirmed that school-family collaboration is one of the main pillars of academic success in primary schools in the Municipality of Kičevo. Based on the analyses, several key conclusions emerge:

1. **Direct Impact:** There is a strong positive relationship between collaboration level and academic achievement ( $r = .74$ ). Students with active parental involvement show significantly higher averages ( $M = 4.2$ ) than those with passive parents ( $M = 3.4$ ).
2. **Power of Communication:** Teacher-parent communication is the strongest predictor of results ( $\beta = .48$ ). Regular information exchange bridges teaching methods at school with home support, ensuring success when communication is systematic.

3. Role of Motivation: Student motivation appears to function as a key intervening mechanism, although this relationship requires further empirical testing using appropriate mediation analysis techniques. Effective collaboration enhances emotional engagement and learning desire, translating into higher academic outcomes.
4. Structural Barriers: Despite willingness to collaborate, traditional face-to-face meeting models face challenges. “Lack of time” (47%), especially in urban schools like “Sande Shterjoski,” and “unclear guidelines” (32%) remain key obstacles requiring greater flexibility.

This study contributes to the growing body of evidence that positions school-family collaboration not merely as a supportive factor, but as a central mechanism in shaping academic success in primary education. The findings highlight the need for structured, consistent, and context-sensitive partnership models to maximize student outcomes.

## 5.2 Recommendations:

### *For Educational Institutions (Kičevo Schools):*

- Standardization and Protocols: Schools should develop clear communication protocols, moving from sporadic notifications to weekly or monthly progress updates, applied consistently across urban and rural areas (Zajaz, Serbica, etc.).
- Flexibility and Digitalization: Given time constraints, digital platforms (official Viber/WhatsApp groups, apps, or e-diaries) are recommended to enable parental involvement without constant physical presence.
- Teacher Training: Teachers in the six participating schools should be equipped with communication skills and techniques for managing focus groups or pedagogical counseling, viewing parents as partners rather than observers.

### *For Parents:*

- Creating a Supportive Environment: Home support should extend beyond homework supervision to fostering a positive attitude toward reading and school. Parents should proactively seek clarification when instructions are unclear.

### *For Policymakers (Municipality and Ministry of Education):*

- Integration into Curriculum and KPIs: School-family collaboration should be included as a key performance indicator for schools.
- Awareness Campaigns: The Municipality of Kičevo should support initiatives such as “Parent, Partner in Education” to raise awareness of the parental role in primary education.

### *For Future Research and Academic Development:*

- Future studies should employ longitudinal designs to track changes over time and better establish causal relationships.
- The use of Structural Equation Modeling (SEM) is recommended to test complex mediation and moderation effects.
- Comparative studies between urban and rural schools would provide deeper insights into contextual differences.

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