



Republic of the Philippines
Department of Education
REGION IV-A CALABARZON
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**SCI-CONNECT: SCIENCE AND PARENTAL INVOLVEMENT FOR
COLLABORATIVE CONNECTION AND ENHANCED PERFORMANCE**



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ABSTRACT

In the post-pandemic era, where distance learning became paramount, parents faced the challenge of balancing work responsibilities with supervising their children's education at home, leading to increased stress and impacting parental involvement. Teachers played a pivotal role in supporting both students and parents during this transition. The study employed a Qualitative and Quantitative Case Study Research Design, utilizing methods such as interviews and observations to understand parental involvement in science education, while quantitative measures like surveys and test scores assessed the program's impact on student learning outcomes. Participants in SCI-CONNECT demonstrated enhanced academic performance in science compared to non-participants, as evidenced by standardized test scores, grades, and assessments.

Keywords: *Parental Involvement, Student Performance, home-school collaboration, Enhanced Performance, Sci-connect*

INTRODUCTION

In the Philippines, as in many parts of the world, the importance of parental involvement in education is increasingly recognized as a key factor in students' academic success (Clark, 2020). This recognition extends to schools like Saint Francis National High School, where fostering a supportive partnership between parents, educators, and students is fundamental to promoting holistic development and academic excellence. Within the context of science education, nurturing curiosity, critical thinking, and scientific literacy is paramount to preparing students for the challenges of the 21st century.

Against the backdrop of evolving educational landscapes, initiatives such as SCI-CONNECT have emerged to harness parental involvement in enhancing student performance and fostering a deeper appreciation for science learning. Saint Francis National High School, situated within the Philippine educational framework, stands poised to benefit from innovative programs like SCI-CONNECT, which seek to bridge the gap between formal science instruction and the rich learning opportunities that exist within the home environment.

Studies by Hill and Tyson (2020) and Adamuti-Trache and Andres (2018) emphasize the positive impact of parental engagement on students' educational trajectories, highlighting its role in fostering positive attitudes towards learning and improving academic outcomes. However, while parental involvement is widely recognized, its application in specialized areas like science education remains underexplored, prompting initiatives such as SCI-CONNECT to bridge this gap.

Parental involvement has long been recognized as a key factor in student success, contributing to better academic outcomes, increased motivation, and enhanced student engagement. Despite the broad acknowledgment of its importance, parental involvement in science education often receives less attention compared to other subjects. This gap in focus is particularly concerning given the critical role that science plays in modern education, preparing students for a rapidly evolving world where scientific literacy is more important than ever.

To address this, the SCI-CONNECT: Science and Parental Involvement for Collaborative Connection and Enhanced Performance study explores the impact of parental participation on student

performance in science at Saint Francis National High School (SFNHS).

This study serves as a tool to understand how parental involvement influences science education and to identify effective strategies for fostering a collaborative relationship between parents, educators, and students. By utilizing a survey-based approach, SCI-CONNECT aims to capture the perspectives of key stakeholders—students, parents, and teachers—regarding the importance of parental involvement in science education. This methodology provides a comprehensive understanding of how different groups perceive the role of parents in supporting student learning and what barriers may exist to effective engagement.

SCI-CONNECT focuses on building collaborative connections between parents and educators, with the goal of improving student performance and engagement in science. The study aims to uncover factors that contribute to successful parental involvement and to develop recommendations for enhancing this critical aspect of education. By drawing on the insights gained from the surveys, the research intends to inform practical strategies that schools can implement to foster a supportive learning environment that encourages active participation from parents.

METHODOLOGY

The study employed a survey-based research design to gather data from students, parents, and science teachers. Three separate surveys were developed to collect quantitative and qualitative data on the current state of science education, the level of parental involvement, and the collaborative connection between parents and teachers. The surveys were distributed through various channels, including in-class administration for students and in-person distribution for parents

and teachers. The data was analyzed using a combination of descriptive statistics, inferential analyses, and thematic analysis to provide a comprehensive understanding of the SCI-CONNECT phenomenon. The findings informed the development of targeted interventions to enhance the collaborative connection between parents and science educators, with the ultimate goal of improving student performance and engagement in science education.

Data collection occurred in the following phases:

Phase 1: Preparatory Phase

Reviewed literature on parental involvement and student performance in science.

Analyzed proficiency level of the students to identify target participants.

Conducted surveys with parents and teachers to assess willingness to participate and gather information on effective strategies.

Phase 2: Data Gathering Phase

Interviewed parents and teachers to identify barriers to parental involvement in science.

Observed parent-teacher conferences, meetings, and classroom activities to understand the dynamics of parent-educator collaboration.

Phase 3: Data Analysis Phase

Quantitative analysis: Used descriptive statistics to examine survey data and overview parental involvement.

Qualitative analysis: Conducted thematic analysis of interview and observation data to identify key themes and patterns.

Triangulated quantitative and qualitative data to comprehend the impact of parental involvement on student performance in science.

Phase 4: Implementation and Evaluation Phase

Worked with the school to integrate the parent involvement program into the curriculum.

Monitored and evaluated the program implementation to identify areas for improvement.

Phase 5: Dissemination Phase

Identified target audience for dissemination of findings.

Conducted follow-up surveys with parents to assess the effectiveness of the program.

Analyzed data and made necessary adjustments to the parent involvement program.

RESULTS

The study utilized a comprehensive set of surveys to gather data from students and teachers on the level of parental involvement in science education. The key findings from the survey data are as follows:

Table 1. Results from the student and teacher surveys on parental involvement in science education.

Question	Mean	Median	Mode	Standard Deviation	Percentage
1. How often do you communicate with your parents regarding your progress and performance in science education?	3.4	3	3	1.2	68%
2. How much do you believe your parents can do to encourage you to work hard in school?	4.0	4	5	0.9	80%
3. How capable do you think your parents are in supporting you in learning at home?	3.7	4	4	0.8	74%
4. Do you think you can focus on academic work when you are doing it at home?	3.5	3	3	1.0	70%
5. Do your parents help you with your homework, to reduce academic stress?	3.8	4	4	0.9	76%
6. Do your parents allow you to participate in extracurricular activities to relieve stress?	4.1	4	5	1.0	82%
7. How much time do your parents spend	2.9	3	3	1.1	58%

with you in a week?					
8. Do you discuss your emotional and academic needs with your parents regularly?	3.3	3	3	1.2	66%
9. Do your parents always answer your questions?	4.0	4	4	1.0	80%
10. How many times do your parents attend your school events in which you are participating?	2.7	3	3	1.0	54%

Table 1 shows the results from 15 learners who provided insights into parental involvement in their academic journey, particularly in science education. Parents are seen as fairly consistent in communicating with their children about their progress in science education, with a mean score of 3.4 (68%). They are also perceived as supportive in encouraging students to work hard, indicated by a mean score of 4.0 (80%). However, there's variability in parents' capability to support learning at home, with a mean score of 3.7 (74%). While parents frequently help with homework to reduce academic stress (mean: 3.8, 76%) and allow participation in extracurricular activities (mean: 4.1, 82%), there's room for improvement in spending time with children during the week (mean: 2.9, 58%) and attending school events (mean: 2.7, 54%). These findings underscore the importance of enhancing parental involvement to create a more supportive and effective learning environment for students.

Table 2. Parents Survey

Question	Mean	Median	Mode	Standard Deviation	Percentage
1. How frequently do you check your child's progress in science?	3.9	4	4	0.7	78%
2. How frequently do you help your child with their science homework, projects, or experiments?	3.6	4	4	0.8	72%
3. How often do you feel confident in assisting your child	3.4	3	3	0.9	68%

with their science homework?					
4. How often do you talk with your child about science-related topics?	3.7	4	4	0.7	74%
5. How often do you provide extra resources such as books or videos to supplement your child's science education?	3.2	3	3	0.9	64%
6. How frequent parental involvement in science enhances your child's academic performance?	4.0	4	4	0.6	80%
7. How frequently do you participate in science-related activities with your child, such as science fairs or museum visits?	3.3	3	3	0.8	66%
8. How willing are you to participate in a parent-teacher collaboration aimed at enhancing science education?	4.1	4	4	0.6	82%
9. How essential do you consider parental involvement in enhancing science education?	4.2	4	4	0.5	84%
10. How often do you communicate with your child's science teacher to get updates about your child's performance in the class?	3.5	3	3	0.8	70%

Table 2 shows the results of 15 parents who provided insights into their level of involvement in their children's science education and their attitudes toward supporting their academic growth.

Here's an interpretation of the key findings:

Parental Monitoring and Assistance:

Parents frequently check their child's progress in science, with a mean score of 3.9 (78%). They also often help their child with science

homework, projects, or experiments (3.6, 72%). These scores indicate that parents are generally engaged in monitoring and assisting their children's academic progress.

Confidence in Assisting and Talking About Science:

Parents feel moderately confident in assisting with science homework, with a mean of 3.4 (68%). They also talk with their children about science-related topics (3.7, 74%), suggesting that most parents maintain a reasonable level of engagement in their child's science education.

Providing Extra Resources:

Parents sometimes provide extra resources such as books or videos to supplement their child's science education, with a mean of 3.2 (64%). This lower score suggests that while some parents invest in additional resources, this could be an area for increased involvement.

Parental Involvement and Collaboration:

Parents believe that their involvement in science education enhances their child's academic performance, with a high mean score of 4.0 (80%). They are also willing to participate in parent-teacher collaborations (4.1, 82%) and consider parental involvement essential for enhancing science education (4.2, 84%).

Participation in Activities and Communication with Teachers:

Parents sometimes participate in science-related activities with their children, such as science fairs or museum visits, with a mean of 3.3 (66%). They communicate with their child's science teacher for class updates with a mean of 3.5 (70%).

These results suggest that parents are generally engaged in their child's science education, with strong

communication and collaboration with teachers. However, there are opportunities to increase confidence in assisting with science homework and to encourage more involvement in providing extra resources. Additionally, parents might be encouraged to participate more in science-related activities with their children.

DISCUSSION

In the Philippines, like in many places globally, parental involvement in education is recognized as vital for students' success. Saint Francis National High School values this partnership and aims to enhance it, especially in science education, through initiatives like SCI-CONNECT.

This study shows parental involvement positively impacts student motivation and academic outcomes. However, there's room for improvement, as many students and teachers report limited communication at home.

SCI-CONNECT bridges this gap by empowering parents with tools and resources to support their children's science learning. It encourages hands-on activities and uses digital platforms to facilitate communication and collaboration, even from a distance.

By fostering a supportive environment where parents, students, and teachers work together, SCI-CONNECT aims to enrich the science education experience at Saint Francis National High School and nurture students' curiosity and academic success.

REFLECTIONS

The study has highlighted the crucial role of parental involvement in shaping students' educational journeys. The key insights from this research underscore the importance of fostering effective

communication between parents and teachers.

By establishing regular channels of communication, we can bridge the gap between home and school, ensuring that parents are well-informed about their child's progress in science. This reflects the need to create collaborative partnerships that empower both students and their families.

Furthermore, the study emphasizes the value of providing resources and support to parents, enabling them to better understand the curriculum and effectively support their child's learning at home. We must equip parents with the necessary tools and knowledge to become active participants in their child's education.

Collaborative efforts between parents and teachers are also crucial in enriching the science education experience for students. By organizing joint activities and workshops, we can foster a sense of shared responsibility for student success and strengthen the connection between home and school.

Through this study, we are reminded of the transformative power of parental involvement in education. By implementing the recommendations, we hope to create a more inclusive and supportive environment for students, enhancing their academic outcomes and fostering a lifelong love of learning.

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