

Perceived Effectiveness of Tutorial Program in Improving Mathematics Academic Performance

Ednalane Mae Mariño, Raymark Anthony P. Saluria*
Saint Louis School of Don Bosco, Inc., Negros Oriental, Philippines

*Corresponding Author Email: raymarksaluria@slsdb.edu.ph

Date received: November 22, 2024

Date revised: December 14, 2024

Date accepted: December 30, 2024

Originality: 99%

Grammarly Score: 99%

Similarity: 1%

Recommended citation:

Mariño, E.M., Saluria, R.A. (2024). Perceived effectiveness of tutorial program in improving Mathematics academic performance. *Journal of Interdisciplinary Perspectives*, 3(1), 274–288.

<https://doi.org/10.69569/jip.2024.0632>

Abstract. Tutorial programs are one of the many techniques that educational institutions have been experimenting with to improve students' mathematical skills due to realizing the importance of mathematics in the curriculum. This study assessed the influence and effectiveness of tutoring programs on junior high school pupils' academic performance in Mathematics. The results show that children from various age groups, grade levels, and socioeconomic backgrounds frequently receive individual tutoring, especially in subjects like math and Filipino. Both parents and kids perceive the tutorial program as a highly successful educational intervention that improves learning and gives students more self-assurance when facing mathematical difficulties. Teachers also acknowledge tutorial programs as a beneficial teaching resource that improves students' academic performance. The study demonstrates no substantial correlation between students' academic ability in mathematics and the level of effectiveness of the tutorial program. Although tutoring can provide tailored assistance and promote comprehension, other elements might be more critical in determining academic achievement. Furthermore, a tutorial program is an excellent complement to the educational support structure, offering advantages for various educational backgrounds and demographics.

Keywords: Academic performance; Mathematics; Tutorial Program; Tutoring.

1.0 Introduction

Proficiency in mathematics is a fundamental ability that supports success in the classroom and other spheres of life (Morgan, 2018). For junior high school students, understanding mathematical ideas and problem-solving techniques is essential for their cognitive growth, future educational opportunities, career success, and academic success (National Council of Teachers of Mathematics, 2020). To achieve these, tutorial programs are one of the many techniques that educational institutions have been experimenting with to improve students' mathematical skills due to realizing the importance of mathematics in the curriculum.

As an educational intervention, tutorials have drawn interest as a successful way to raise students' arithmetic proficiency (Baker et al., 2002). Many students struggle to understand and perform well in mathematics, which can negatively affect their academic performance. The school's administration, teachers, and parents have been looking for ways to improve students' mathematics skills and close the achievement gap. Even though mathematics is considered essential for junior high school students' academic growth, there is still a severe worry about their academic progress and mathematical ability.

Offering tutorial services appears to be a viable way to deal with these issues. Nonetheless, there is a significant knowledge vacuum about the effectiveness and influence of tutorial programs on junior high school students' academic performance and mathematical abilities, particularly at Saint Louis School of Don Bosco. Its junior high school students now have access to tutorial services as part of its dedication to supporting academic performance. The degree to which these programs affect students' academic achievement and mathematical abilities is still debatable.

The study was based on a theoretical framework that suggests tutorials might be an effective, individualized method of providing academic support (Woodward et al., 2016). By analyzing the quantitative data gathered, the research aimed to provide educators and policymakers with a comprehensive understanding of the consequences of tutoring. This would enable them to make educated decisions about integrating tutoring into the educational environment.

This study aimed to determine the level to which junior high school students in one of the private schools in Dumaguete benefit from tutorial programs in terms of their academic performance and mathematical abilities. The study also sought to comprehend junior high school students' opinions regarding the efficacy and advantages of tutorials concerning their mathematics performance. Through an extensive assessment of the role of tutorials in improving math skills, this study would add to the larger conversation on successful teaching methods and student growth. In doing so, this study tackled the crucial issue of how educational establishments may support junior high school students' development of mathematical skills, thus fostering their academic performance and more comprehensive intellectual progress.

2.0 Methodology

2.1 Research Design

The study utilized a quantitative research approach, which is well-suited for assessing the impact of tutoring on mathematics achievement, mediating factors, and demographic variables (Creswell & Creswell, 2017). The study utilized descriptive and correlational research designs to determine and describe the relationships between and among the variables. It used them to develop generalizations and formulate principles or theories based on its findings (Calmorin & Calmorin, 2007).

2.2 Research Participants

The research specifically targeted junior high school students exclusively enrolled in the tutorial program at Saint Louis School of Don Bosco, along with their parents and teachers who are actively engaged in the said program. These students voluntarily participated in tutorial sessions tailored to improve their mathematical skills, showcasing their dedication to academic advancement through private tutoring. By focusing solely on individuals involved in tutorial programs, the study aimed to provide insights into the effectiveness of such programs in enhancing mathematics achievement and performance among junior high school students. This study did not utilize any sampling design. This is because the study's sample size is below 100, specifically 35 students and parents and 18 teachers. Morris (n.d.) posited that the entire population should be studied if this happens.

2.3 Research Instrument

The research instrument was adapted and modified from the instrument developed by Xixi et al. (2003), as utilized in the study by Narzoles and Palermo in 2020. The questionnaire was altered to address key research objectives, including assessing participants' perceived effectiveness of the tutorial program, collecting academic information, obtaining demographic details, and exploring socioeconomic background. The questionnaire incorporated a five-point Likert scale for assessing perceptions and numerical scales for objective academic data, ensuring a well-rounded approach to data collection. In finalizing the questionnaire, some questions from related studies were adapted and modified to align with this investigation's variables and research questions. The development of the questionnaire adhered to ethical guidelines, including informed consent procedures and considerations for participant confidentiality.

2.4 Data Gathering Procedures

The data were collected through the questionnaire method. Questions were adapted and modified to elicit vital information on the students' profiles and their perceived effectiveness of private tutoring and academic achievement in mathematics. This study's data collection commenced with informed consent from the students, parents, teachers, and the principal. Once the principal allowed the administration of questionnaires, the administration was done. After, the intent and purpose of the study were explained to the respondents. They were assured that data were treated with utmost confidentiality. All data and relevant demographics were recorded, reviewed for accuracy, and processed. The study implemented quality control measures. Data analysis determined the impact of tutoring, with validation to ensure accuracy. Data were stored securely, respecting privacy and confidentiality. The research adhered to the predetermined timeline and acknowledged any potential limitations. Participants were recognized for cooperation, and research findings were shared upon conclusion.

2.5 Data Analysis

The study utilized a quantitative approach. The collected data were analyzed using different statistical tools: frequency, percentage, weighted mean, and Spearman correlation.

2.6 Ethical Consideration

Ethical considerations in this research paper encompass several vital principles to ensure the integrity, respect, and protection of all study participants. First and foremost, the study adhered to the principles of informed consent, wherein participants, including students, parents, and teachers, were provided with comprehensive information about the study's objectives, procedures, potential risks, and benefits. This ensured that each participant made a voluntary and informed decision to participate, with the assurance that their participation was entirely voluntary and could be withdrawn at any time without consequence. Confidentiality and anonymity were rigorously maintained throughout the study to safeguard participants' privacy. Measures were implemented to protect personal information and ensure the data collected remained confidential. Participants' identities were anonymized in reporting to prevent potential identification, thereby upholding their confidentiality.

3.0 Results and Discussions

3.1 Profile of the Respondents

Table 1 presents the sex profile of student respondents. The data reveal that out of 35 respondents, 18 (51.43%) are male, while 17 (48.57%) are female.

Table 1. Profile of the student respondents

Profile	Frequency	Percentage
Sex		
Male	18	51.4
Female	17	48.5
Age		
12-13	16	45.7
14-15	13	37.1
16-17	6	17.1
Grade Level		
Grade 7	11	31.4
Grade 8	9	25.7
Grade 9	7	20.0
Grade 10	8	22.8
Weekly Allowance		
100-350	26	74.2
351-500	4	11.4
501-850	3	8.57
851-1000	2	5.71
Weekly Tutorial Sessions		
Regularly (3 or more times per week)	14	40.0
Occasionally (1-2 times per week)	8	22.8
Rarely (1-2 times per month)	13	37.1

The data further show that more male students are engaged in the tutorial program of Saint Louis School of Don Bosco, Inc. than female students. The study conducted by Jennings and DiPrete (2018) draws attention to the ongoing disparities between genders in educational choices and outcomes, with men frequently demonstrating more significant levels of intellectual engagement in particular courses or activities. This describes the trend of more male students using private tutoring. Table 1 also presents the age profile of student respondents. The data reveal that out of 35 students, 16 (45.714%) are aged 12 to 13 years old, 13 (37.143%) are aged 14 to 15 years old, and 6 (17.143%) are aged 16 to 17 years old. The data further show that more students ages 12 to 13 are engaged in the tutorial program of Saint Louis School of Don Bosco, Inc. The works by Steinberg and Icenogle (2019) emphasize how critical developmental phases are to how adolescents behave in the classroom and make decisions. The developmental stage of 12 to 13-year-old students is marked by heightened cognitive and socio-emotional development, which may make them more responsive to tutoring programs.

Table 1 presents the grade level profile of student respondents. The data reveal that out of the 35 students, 11 (31.43%) are Grade 7, 9 (25.71%) are Grade 8, 7 (20.00%) are Grade 9, and 8 (22.86%) are Grade 10. The data further show that more Grade 7 students are engaged in the Saint Louis School of Don Bosco, Inc tutorial program. Based on the study conducted by Reardon (2021), academic achievement gaps increase as kids go through the school system, with educational inequality typically being more noticeable at earlier grade levels. This may explain why children in Grade 7 need more tutoring than students from other grades. Table 1 also presents the weekly allowance of student respondents. The data reveal that out of 35 respondents, 26 (74.29%) have an allowance of 100-350 pesos, 4 (11.43%) have an allowance of 351-500 pesos, 3 (8.57%) have an allowance of 501-850 pesos. 2 (5.71%) have an allowance of 851-1000 pesos and none for above 1000. The data further show that more students are engaged in tutorial programs, having a weekly allowance of 100-350 pesos. Research indicates that students' financial resources significantly influence their educational decisions (Chan et al., 2020). A study by Pollard (2019) found that students with moderate allowances are more likely to invest in educational support services than those with very low or high allowances.

Lastly, Table 1 presents the tutorial sessions of student respondents. The data reveal that out of 35 respondents, 14 (40%) are taking tutorials regularly, 8 (22.86%) are taking them occasionally, and 13 (37.14%) are taking them rarely. The data further show that more students are taking tutorial programs regularly, three or more times per week. A study by Hattie and Zierer (2017) on successful educational programs highlights the significance of consistent and ongoing practice for the best possible learning results. Compared to random or occasional sessions, regular tutorial sessions—three or more times a week, as shown by your findings—may promote deeper comprehension and memory of academic knowledge.

Table 2 presents the monthly family income of the parent's respondents.

Table 2. *Profile of the parent respondents*

Profile	Frequency	Percentage
Family Income		
Low Income (Php 9,250 to Php 38,080)	31	88.5
Middle Income (Php 38,080 to Php 66,640)	2	5.71
High Income (Php 66,640 to Php 114,240)	2	5.71
Number of Children Receiving Tutoring Sessions		
Nursery to Grade 2	1	2.33
Grade 3 to 5	5	11.6
Grade 6 to 8	12	27.9
Grade 9 to 12	25	58.1
Parent's Preferred Weekly Tutorial Sessions		
Regularly (3 or more times per week)	15	42.8
Occasionally (1-2 times per week)	9	25.7
Rarely (1-2 times per month)	11	31.4
Regularly (3 or more times per week)	15	42.8
Rate		
150 - 200 per hour	27	77.1
201 - 250 per hour	0	0
251 - 300 per hour	6	17.1
300 above	2	5.71

The data reveal that out of 35 respondents, 31 (88.57%) belong to low-income whose monthly income ranges from Php 9 520 to Php 38, 080, 2 (5.71%) belong to middle-income whose monthly income ranges from Php 38, 080 to Php 66, 640; and 2 (5.71%) belong to high-income whose monthly income ranges from Php 66, 640 to Php 114, 240. The data further show that more students belong to low-income families whose monthly income is Php 9 520 to Php 38 080. The development of Bourdieu's theory by Lamont et al. (2014) highlights how income influences individuals' access to academic resources and educational paths. However, these contradict the results in which higher levels of cultural capital, such as awareness of educational options and the importance of academic enrichment, may be possessed by middle-class families, and this could explain why more of them may enroll in tutoring programs.

Table 2 also presents the number of children in a certain household receiving tutoring sessions from the school. The data reveal that out of 43 students, 1 (2.33%) belongs to the nursery to Grade 2, 5 (11.63%) belong to Grades 3 to 5, 12 (27.91%) belong to Grades 6 to 8, and 25 (58.14%) belong to Grades 9 to 12. The table also shows that the 43 students comprise 35 high school students and eight elementary pupils. The data further show that more students under Grades 9 to 12 receive tutoring sessions from the school. The study by Kraft et al. (2023) looks at how pupils adjust to high school and what kind of help they require during this crucial time. Examining parental choices about tutoring enrollment for Grades 9 through 12 students can reveal the elements that lead to heightened parental involvement in assisting their kids' academic aspirations as they advance through high school.

Table 2 also presents the preferred weekly tutorial sessions of parents. The data reveal that out of 35 respondents, 15 (42.86%) opted for regular sessions (3 or more times per week), 9 (25.71%) opted for occasional tutorial sessions (1-2 times per week), and 11 (31.43%) opted for rarely (1-2 times per month). The data further show that more parents opted for regular tutorial sessions (3 or more times per week). According to Reay (2005), parents of higher socioeconomic backgrounds are more likely to invest in additional educational resources, including regular tutorials, to ensure their children's academic success.

Lastly, Table 2 shows the parent's preferred tutoring rate per hour. The data reveal that out of the 35 respondents, 27 (77.14%) preferred 150 – 200 pesos per hour, 6 (17.14%) preferred 251 – 300 per hour, and 2 (5.71%) preferred 300 above pesos per hour, none opted for 201 – 250 pesos per hour. The data further show that more parents preferred a tutorial rate of 150 – 200 pesos per hour. Akçadağ's synthesis indicates the importance of demand-supply dynamics in determining tuition rates. Approximately 200 pesos per hour may emerge as a competitive pricing point in areas with significant demand for tutoring services but a relatively ample supply – this pricing point balances between meeting parents' affordability expectations and adequately compensating instructors.

Table 3 presents the number of teaching years of the teachers offering tutorial services in the school.

Table 3. *Profile of the teacher respondents*

Profile	Frequency	Percentage
Teacher's Years of Teaching		
less than 2 years	3	16.6
2 to 5 years	5	27.7
6 to 10 years	4	22.2
11 to 15 years	0	0.00
16 to 20 years	1	5.56
21 to 25 years	3	16.6
26 to 30 years	2	11.1
Subjects Tutored		
Mathematics	17	20.9
Science	16	19.7
English	15	18.5
AP	16	19.7
Filipino	17	20.9
Regularly (Tutoring Hours per Session)		
1 hour/session	12	66.6
1 hour and 30 minutes/session	0	0.00
2 hours	6	33.3

The data reveal that 3 (16.67%) have served for less than 2 years, 5 (27.78%) have served for 2 to 5 years, 4 (22.22%) have served for 6 to 10 years, 1 (5.56%) has served for 16 to 20 years, 3 (16.67%) have served for 21 to 25 years, and 2 (11.11%) have served for 26 to 30 years. The data further show that more teachers have offered tutorial services in the school for 2 to 5 years. Guo et al. (2020) investigated the factors shaping novice teachers' motivation and professional growth. It may offer insights into how teachers in the 2 to 5-year experience range navigate their career trajectories and seek opportunities for skill development, including tutoring. Table 3 also shows the subjects tutored by the teachers. The data reveal that out of 81 total frequency, 17 (20.99%) have tutored Mathematics, 16 (19.75%) have tutored Science, 15 (18.52%) have tutored English, 16 (19.75%) have tutored AP, and 17 (20.99%) have tutored Filipino. The table shows that the 18 teachers are tutoring more than one subject. The data further show that more teachers are tutoring the subjects Mathematics and Filipino as part of the tutorial services offered by the school.

Table 3 further presents the teachers' preferred number of tutoring hours per session. The data reveal that out of 18 respondents, 12 (66.67%) preferred 1 hour/session, 6 (33.33%) preferred 2 hours/session, and none preferred 1 hour and 30 minutes/session. The data further show that more teachers prefer 1 hour per tutoring session. The findings contradict Hattie and Zierer (2017). Successful educational programs highlight the significance of consistent and ongoing practice for the best possible learning results. Compared to random or occasional sessions, regular tutorial sessions—three or more times a week, as shown by his findings—may promote deeper comprehension and memory of academic knowledge.

3.2 Effectiveness of the Tutorial Program

Table 4. *Level of effectiveness of the tutorial program as perceived by the students*

Indicators	SD	$\bar{x}$	Description
1. The tutorial classes covered key areas linked to the class lectures.	0.73	4.34	Very Effective
2. The tutorial classes were well-planned and structured, similar to the class discussion.	0.76	4.11	Effective
3. The tutorial classes encouraged me to prepare for summative exams properly.	0.74	4.51	Very Effective
4. The tutorial classes' contents were adapted to my needs.	0.71	4.17	Effective
5. The tutorial classes improved my academic performance.	0.87	4.11	Effective
6. I looked forward to my tutorial classes.	0.87	3.69	Effective
7. I am satisfied, and I truly enjoyed the tutoring.	0.87	4.11	Effective
8. I learned a lot from tutorials.	0.81	4.23	Very Effective
9. I would recommend tutorials to my friends and classmates who are at risk or who would like to improve their marks.	0.71	4.46	Very Effective
10. I believe that tutorials help enhance my confidence and mathematical skills.	0.84	4.23	Very Effective
Composite Value	0.79	4.20	Effective
1. My tutor helped me in all the difficulties I have encountered in my academic life.	0.77	4.23	Very Effective
2. My tutor was interested in my academic progress.	0.73	4.34	Very Effective
3. My tutor recognized that students' needs, concerns, and interests differ.	0.69	4.37	Very Effective
4. My tutor gave me the confidence to answer exam questions.	0.83	4.20	Effective
5. My tutor showed concern and greatly tried to help me.	0.83	4.29	Very Effective
Composite Value	0.77	4.29	Very Effective
1. The venue has proper lighting and ventilation.	0.81	3.77	Effective
2. The venue is spacious enough and accommodates the student/s.	0.77	4.00	Effective
3. The venue is conducive to learning.	0.89	3.71	Effective
4. The tutor is always available for tutorials.	0.87	3.80	Effective
5. Time preference is considered.	0.81	4.14	Effective
6. The tutorial time is enough for the tutorial.	0.78	4.09	Effective
Composite Value	0.82	3.92	Effective
Overall Composite Value	0.79	4.14	Effective

Table 4 shows the entire collection of responses on the level of effectiveness of the tutorial program as perceived by students. It is composed of three parts. First, regarding the level of effectiveness of tutorial classes, its composite weighted mean is 4.20, and the composite standard deviation is 0.79, with a verbal description of effectiveness. This means that the tutorial classes are effective, and students find the value of tutorial sessions effective in enhancing their understanding of course materials and improving academic performance. Second, the level of effectiveness regarding the tutors, its composite weighted mean is 4.29, and the composite standard deviation is 0.77 with a verbal description of very effective. This means that the tutors are very effective, and the students'

assessments of the tutor's competence, teaching style, responsiveness to questions, and ability to clarify difficult concepts are relatively very high.

Third, for the level of effectiveness regarding the tutorial venue and time, its composite weighted mean is 3.92, and the composite standard deviation is 0.82 with a verbal description of effectiveness. This implies that student's views on the appropriateness and comfort of the location where tutorial sessions take place – students' feedback on the scheduling and duration of tutorial sessions, including whether the timing is convenient and conducive for learning, are all effective for them. The data further reveal that the overall weighted mean is 4.14 and the overall standard deviation is 0.79, with a verbal description of effectiveness. This means that the tutorial program, as perceived by students, is effective. Students consider it a helpful educational tool that contributes positively to their academic progress. The results further support the study conducted by Seo (2018), which highlights that the tutorial program positively predicted self-study time and academic achievement.

Table 5. *Level of effectiveness of the tutorial program as perceived by the parents*

Indicators	SD	$\bar{x}$	Description
1. The tutorial classes covered key areas linked to the class lectures.	0.76	4.34	Very Effective
2. The tutorial classes were well-planned and structured, similar to the class discussion.	0.84	4.00	Effective
3. The tutorial classes encouraged my child to prepare for summative exams properly.	0.81	4.37	Very Effective
4. The tutorial classes' contents were adapted to my child's needs.	0.82	3.97	Effective
5. The tutorial classes improved my child's academic performance.	0.71	4.29	Very Effective
6. I looked forward to my child's tutorial classes.	0.83	3.71	Effective
7. I am satisfied that my child has truly enjoyed the tutoring.	0.86	4.03	Effective
8. My child learned a lot from tutorials.	0.82	4.17	Effective
9. I would recommend tutorials to other parents whose children are at risk and those who want to improve their marks.	0.73	4.34	Very Effective
10. The tutorials help my child enhance their confidence and mathematical skills.	0.95	4.09	Effective
Composite Value	0.81	4.13	Effective
1. The tutor helped my child with all the difficulties he/she has encountered in their academic life.	0.73	4.23	Very Effective
2. The tutor was interested in my child's academic progress.	0.85	4.14	Effective
3. The tutor recognized that the students differ in their needs, concerns, and interests.	0.93	4.20	Effective
4. The tutor gave my child the confidence to answer exam questions.	0.85	4.14	Effective
5. The tutor showed concern and made a great effort to help my child.	0.83	4.20	Effective
Composite Value	0.84	4.18	Effective
1. The venue has proper lighting and ventilation.	0.85	3.74	Effective
2. The venue is spacious enough and accommodates the student/s.	0.76	3.89	Effective
3. The venue and time are conducive to the students.	0.89	3.71	Effective
4. The time is convenient to the student.	0.87	3.66	Effective
5. The time preference of the tutor is considered.	0.87	4.06	Effective
6. The tutorial time is enough for the tutorial.	0.78	4.09	Effective
Composite Value	0.83	3.86	Effective
Overall Composite Value	0.83	4.06	Effective

Table 5 shows the entire collection of responses on the level of effectiveness of the tutorial program as perceived by parents. It is composed of three parts. First, for the level of effectiveness regarding tutorial classes, its composite weighted mean is 4.13, and the composite standard deviation is 0.81 with a verbal description of effectiveness. This means that the tutorial classes are effective, and parents find the value of tutorial sessions effective in enhancing their understanding of course materials and improving the academic performance of their children. Second, for the level of effectiveness regarding the tutors, its composite weighted mean is 4.18, and the composite standard deviation is 0.84 with a verbal description of effectiveness. This means that the tutors are effective, and parents' assessments of the tutor's competence, teaching style, responsiveness to questions, and ability to clarify complex concepts are relatively high. Third, for the level of effectiveness regarding the tutorial venue and time, its composite weighted mean is 3.86, and the composite standard deviation is 0.83 with a verbal description of effectiveness. This implies that parents' views on the appropriateness and comfort of the location where tutorial sessions take place – parents' feedback on the scheduling and duration of tutorial sessions, including whether the timing is convenient and conducive for learning - are effective for their children.

The data further show that the overall weighted mean is 4.06, and the overall standard deviation is 0.83, with a verbal description of effectiveness. This means that the tutorial program, as perceived by parents, is effective. Parents consider it as a helpful educational tool, contributing positively to their children's academic progress. Moreover, the results support the study of Zheng et al. (2020), which asserts that the tutorial program is significantly and positively associated with student test scores. Furthermore, tutored students tend to report higher levels of self-confidence and parent-child relationships.

Table 6. *Level of effectiveness of the tutorial program as perceived by the tutor/teacher*

	SD	$\bar{x}$	Description
1. The tutorial classes covered key areas linked to the class lectures.	0.51	4.44	Very Effective
2. The tutorial classes were well-planned and structured, similar to the class discussion.	0.69	4.33	Very Effective
3. The tutorial classes encouraged the students to prepare for summative exams properly.	0.43	4.78	Very Effective
4. The tutorial classes' contents were adapted to the child's needs.	0.50	4.61	Very Effective
5. The tutorial classes improved the child's academic performance.	0.57	4.72	Very Effective
6. I looked forward to my tutorial classes.	0.62	4.44	Very Effective
7. I am satisfied and I truly enjoyed the tutorial classes.	0.77	4.33	Very Effective
8. My students learned a lot from tutorials.	0.61	4.61	Very Effective
9. I would recommend tutorials to other parents/students who are at risk and those who like to improve their marks.	0.32	4.89	Very Effective
10. I believe that tutorials help the child enhance their confidence and mathematical skills.	0.43	4.78	Very Effective
Composite Value	0.54	4.59	Very Effective
1. I helped the child in all the difficulties he/she encountered in their academic life.	0.62	4.56	Very Effective
2. I was interested in my student's academic progress.	0.43	4.78	Very Effective
3. I recognized that the students differ in their needs, concerns, and interests.	0.43	4.78	Very Effective
4. I gave the child the confidence to answer exam questions.	0.46	4.72	Very Effective
5. I showed concern and made a great effort to help the child.	0.46	4.72	Very Effective
Composite Value	0.48	4.71	Very Effective
1. The venue has proper lighting and ventilation.	0.77	4.00	Effective
2. The venue is spacious enough and accommodates the student/s.	0.46	4.28	Very Effective
3. The venue and time is conducive for the students.	0.58	3.89	Effective
4. The tutor is always available for tutorial.	0.67	4.28	Very Effective
5. Time preference of the tutor is considered.	0.61	4.39	Very Effective
6. The tutorial time is enough for tutorial.	0.73	4.06	Effective
Composite Value	0.64	4.15	Effective
Overall Composite Value	0.55	4.48	Very Effective

Table 6 shows the entire collection of responses on the level of effectiveness of the tutorial program as perceived by the tutors or parents. It is composed of three parts. First, for the level of effectiveness regarding tutorial classes, its composite weighted mean is 4.59, and the composite standard deviation is 0.54, with a verbal description of very effective. This means that the tutorial classes are very effective, and tutors/teachers find the value of tutorial sessions effective in enhancing understanding of course materials and improving their children's academic performance. Second, for the level of effectiveness regarding the tutors, its composite weighted mean is 4.71, and the composite standard deviation is 0.48, with a verbal description of very effective. This means that the tutors are very effective, and tutors/teachers' assessments of their competence, teaching style, responsiveness to questions, and ability to clarify complex concepts are very high. Third, for the level of effectiveness regarding the tutorial venue and time, its composite weighted mean is 4.15, and the composite standard deviation is 0.64 with a verbal description of effectiveness. This implies that tutors/teachers' views on the appropriateness and comfort of the location where tutorial sessions take place – teachers' feedback on the scheduling and duration of tutorial sessions, including whether the timing is convenient and conducive for learning – are effective for the students.

The data further show that the overall weighted mean is 4.48 and the overall standard deviation is 0.55, with a verbal description of very effective. This means that the tutorial program, as perceived by tutors/teachers, is very effective. Teachers consider it a helpful educational tool, contributing positively to students' academic progress. Furthermore, the research on youth mentoring programs further underscores that positive mentoring relationships can have many advantages for students' social and emotional well-being (Robinson et al., 2021).

Table 7 indicates the mathematics academic performance profile of the students engaged in the school's tutorial program. This is a collection of their mathematics grades from the first quarter down to the average. The mathematics grades are composed of written works, 40% of their grades, performance tasks, 40%, and quarterly assessments, 20%. Looking at the average grades, 13 (37.14%) students have grades of 90% and above and 85% to 89% belong to advanced and proficient groups, respectively, 7 (20%) of them have the grades 80% - 84% with verbal equivalent as approaching proficiency, 2 (5.71%) of them have the grades 75% - 79% with verbal equivalent as developing, and none belongs to the beginning category.

Table 7. Mathematics academic performance

Rating	1st	%	2nd	%	3rd	%	4th	%	$\bar{x}$
90% above (Advanced)	9	25.7%	15	42.8%	13	37.1%	17	48.5%	13
85% - 89% (Proficient)	7	20.0%	9	25.7%	15	42.8%	11	31.4%	13
80% - 84% (Approaching Proficiency)	16	45.7%	9	25.7%	5	14.2%	7	20.0%	7
75% - 79% (Developing)	3	8.57%	2	5.71%	2	5.71%	0	0	2

The data reveal that there are more students who have grades 90% and above and 85% to 89%. This means that the students at this level exceed and have developed the core and fundamental requirements in terms of knowledge, skills, and understanding and can transfer them automatically, flexibly, and independently through authentic performance tasks.

3.3 Difference of Assessment on the Level of Effectiveness of the Tutorial Program

Table 8 illustrates the respondents' perceived level of effectiveness of the tutorial program when grouped according to their sex. The mean for the male student respondents is 4.166, which verbally describes effectiveness. The female respondents have a mean of 4.110, with a verbal effectiveness description. The data exhibit that male and female student respondents have perceived the tutorial program as effective. Students consider tutorial programs as a helpful educational tool, contributing positively to their academic progress. Furthermore, these findings concur with the study of Topping (1996), which explores peer tutoring and its effectiveness across genders. The results reveal that male and female students benefit equally from peer tutoring programs, improving academic performance and engagement.

Table 8. When grouped according to sex

Sex	Mean	Description
Male	4.17	Effective
Female	4.11	Effective

Table 9 illustrates the respondents' perceived level of effectiveness of the tutorial program when grouped according to their age. The data indicate that mean value of students ages 12-13 is 4.198 with a verbal description of effective. Their mean value for ages 14-15 is 4.008, with a verbal description of effectiveness. For ages 16-17, their mean value is 4.270, with a verbal description that it is very effective. The data show that ages 16-17 years find the tutorial program very effective. This means that the tutorial program is highly effective and is perceived as a valuable and successful educational support that significantly enhances their learning. Additionally, these findings support the study of Robinsons et al. (2021), which suggests that personalized tutoring programs can significantly improve the academic performance of high school students, particularly those aged 16 to 17. It emphasizes the benefits of individualized attention and tailored instruction in boosting student achievement.

Table 9. When grouped according to age

Sex	Mean	Description
12-13	4.20	Effective
14-15	4.01	Effective
16-17	4.27	Very Effective

Table 10 illustrates the respondents' perceived level of effectiveness of the tutorial program when grouped according to their grade level. The data indicate the mean values for each grade level. Grade 7 has a mean of 4.230, which falls under the verbal description of very effective. Grade 8 has a mean of 4.231, which also means it is very effective. Grade 9 has a mean value of 3.674, which is a verbal description of effectiveness. Grade 10 has a mean value of 4.318, with the verbal description of being very effective. The data exhibit that Grades 7, 8, and 10 find the tutorial program of the school very effective, while grade 9 students consider the tutorial program effective.

The findings agree with the study of Shokirova and Rasulov (2024), which highlights the widening achievement gap in middle school and the positive impact of sustained tutoring. The study also reveals the complex dynamics of tutoring in high school, with varying effects on academic performance.

Table 10. *When grouped according to grade level*

Grade Level	Mean	Description
7	4.23	Very Effective
8	4.23	Very Effective
9	3.67	Effective
10	4.32	Very Effective

Table 11 illustrates the respondents' perceived level of effectiveness of the tutorial program when grouped according to their weekly allowance. The data indicate the mean value of the weekly allowance of students. The mean value of 100-350 pesos is 4.096, a verbal description of effectiveness. The mean value of 351-500 pesos is 4.238, which is very effective. For 501-850, the mean value is 4.349, which is very effective. For 851-1000, its mean is 4.190, a verbal effectiveness description. The data further show that the weekly allowances of 100-350 and 851-1000 find the tutorial program effective, while the allowances of 351 to 850 find the tutorial program very effective. The findings are supported by the study of Guyana et al. (2021), which focused on the impact of high-dosage tutoring for adolescents and found that those from low-to-middle-income families benefited significantly.

Table 11. *When grouped according to weekly allowance*

Weekly Allowance	Mean	Description
100-350	4.10	Effective
351-500	4.24	Very Effective
501-850	4.35	Very Effective
851 - 1000	4.20	Effective

Table 12 illustrates the respondents' perceived level of effectiveness of the tutorial program when grouped according to their tutorial sessions. The data show the mean value of the different tutorial sessions. It rarely has a mean value of 4.182, which describes verbal effectiveness. Occasionally, it has a mean value of 4.098, a verbal description of effectiveness. Regularly, it has a mean value of 4.123 and a verbal description of effectiveness. The data exhibit that regardless of tutorial sessions – rarely, occasionally, and regularly, the students find the tutorial program effective. Moreover, the findings concur with the study of Bloom et al. (2008), which explores various educational interventions, including tutoring. It generally finds that more consistent and frequent tutoring yields better outcomes but acknowledges that any tutoring can still provide benefits compared to no tutoring.

Table 12. *When grouped according to the tutorial sessions of student respondents*

Tutorial Sessions	Mean	Description
Rarely	4.18	Effective
Occasionally	4.10	Effective
Regularly	4.12	Effective

Table 13 illustrates the respondents' perceived level of effectiveness of the tutorial program when grouped according to their socioeconomic background. The data reveal that for low-income, its mean is 4.143, which has a verbal description of effectiveness. Middle income has a mean of 4.070, which falls under the effective description. High income has a mean of 3.905, which also has a verbal description of effectiveness. The data further show that regardless of the socioeconomic background of respondents – low income, middle income, or high income- the students consider the school's tutorial program effective. Furthermore, these findings coincide with the study of Guryan et al. (2023), which found that high-dosage tutoring was effective across various socioeconomic groups. It demonstrated that students from low, middle, and high-income families all benefited from intensive tutoring, significantly improving their academic outcomes.

Table 13. *When grouped according to socioeconomic background*

Socioeconomic Background	Mean	Description
Low Income	4.14	Effective
Middle Income	4.07	Effective
High Income	3.91	Effective

Table 14 illustrates the respondents' perceived level of effectiveness of the tutorial program when grouped according to the number of children who received the tutorial program. The data show the mean values of the number of children receiving tutorial programs in the school. For Nursery 2 to Grade 2, the mean value is 3.048, a verbal description of moderate effectiveness. For Grades 3 to 5, the mean value is 3.857, with a description of effectiveness. The mean value for grades 6 to 8 is 4.174, with a verbal description of effectiveness. For Grades 9 to 12, its mean is 4.107 with a verbal description of effective. The data shows that Grades 3 to 12 consider the tutorial program offered by the school effective. Nursery 2 to Grade 2 considers it moderately effective. These findings support the study of Dynarski et al. (2013), asserting that investments in educational programs, including tutoring, can significantly impact students from early childhood through Grade 12. It emphasizes the long-term benefits of such interventions on academic achievement and post-secondary.

Table 14. *When grouped according to the number of children receiving tutorial program*

Number	Mean	Description
Nursery to Grade 2	3.05	Moderately Effective
Grade 3 to 5	3.86	Effective
Grade 6 to 8	4.17	Effective
Grade 9 to 12	4.11	Effective

Table 15 illustrates the respondents' perceived level of effectiveness of the tutorial program when grouped according to their preferred tutorial sessions. The data reveal that for rarely (1-2 times per month), the mean is 4.100 with a verbal description of effective; for occasionally (1-2 times per week), the mean is 3.973 with a verbal description of effective; for regularly (3 or more times per week), the mean is 4.095 with a verbal description of effective. The data further exhibit that parents believed that regardless of the tutorial sessions, all would deliver the same effectiveness. The findings coincide with the work of Dynarski et al. (2013), which evaluates the impact of childhood investments, including tutoring, on postsecondary attainment. While not focusing on parental preferences, it emphasizes the importance of high-quality tutoring programs in achieving positive long-term outcomes.

Table 15. *When grouped according to the preferred tutorial sessions of parent respondents*

Tutorial Sessions	Mean	Description
Rarely	4.10	Effective
Occasionally	3.97	Effective
Regularly	4.10	Effective

Table 16 exhibits the difference in the tutorial program's effectiveness level when grouped according to the preferred rate per hour of parent respondents. The results show that for 150 to 250 pesos per hour, the mean is 4.049; for 251 to 350 pesos per hour, the mean is 4.134; for 351 and above, the mean is 4.071. All have a verbal description of effectiveness. The data further exhibit that regardless of the hourly rate, all will deliver the same effectiveness. They consider it a helpful educational tool, contributing positively to the student's academic progress. Findings support the study of Manning and Marquis (1996). While not directly related to tutoring, this study explores how individuals perceive the quality of services relative to their cost. It suggests that perceptions of quality may influence service satisfaction regardless of the actual payment amount.

Table 16. *When grouped according to the preferred tutorial rate per hour*

Rate/Hour	Mean	Description
150-250	4.05	Effective
251-350	4.13	Effective
351 above	4.07	Effective

Table 17 shows the difference in the level of effectiveness of tutorial programs when grouped according to the years of teaching of teacher respondents. For 5 years and below, it has a mean of 4.468 with a verbal description of very effective; for 6 to 10 years in teaching, the mean is 4.536 with a verbal description of very effective; for 16 to 20 years in teaching, the mean is 4.524 with a verbal description of very effective; for 21 years and above in teaching, it has the mean of 4.505 with a verbal description of very effective. The data further show that regardless of the number of teaching years, the teachers consider the tutorial program highly effective and is perceived as a valuable and successful educational support that significantly enhances student's learning. The study of Rivkin et al. (2005) which investigates the impact of teacher characteristics, including experience, on student outcomes. It

suggests that while experience is one factor, other characteristics such as content knowledge, pedagogical skills, and instructional practices influence teaching effectiveness.

Table 17. *When grouped according to the number of years in teaching of teacher respondents*

Years of Teaching	Mean	Description
5 and below	4.47	Very Effective
6 to 10 years	4.54	Very Effective
16 to 20 years	4.52	Very Effective
21 and above	4.51	Very Effective

Table 18 indicates the difference in the tutorial program's effectiveness level when grouped according to the subjects tutored by the teacher respondents. The data show that Math's mean is only 4.476 – very effective. The combination of the subjects Math AP and Filipino has a mean of 3.905 with a verbal description of effectiveness. For subjects Math, Science, and Filipino, it has a mean value of 4.571 with a verbal description of very effective. Lastly, for all subjects tutored, it has a mean of 4.530 with a verbal description of very effective. The data show that the teachers consider the tutorial very effective regardless of the subjects tutored. The study of Slavin and Lake (2008) reviews effective programs in middle and high school mathematics, including tutoring, and suggests that tutoring programs are beneficial for improving mathematics achievement specifically. However, similar effects may be observed in other subjects.

Table 18. *When grouped according to the subjects tutored by the teacher, respondents*

Subjects Tutored	Mean	Description
Math	4.48	Very Effective
Math AP Fil	3.91	Effective
Math Science Fil	4.57	Very Effective
All	4.53	Very Effective

Table 19 exhibits the difference in the tutorial program's effectiveness level when grouped according to the preferred hour per session of teacher respondents. The data show that teachers who prefer 1 hour per session have a mean of 4.456 with a verbal description of very effective; teachers who prefer 2 hours per session have a mean of 4.571 with a verbal description of very effective. The data show that regardless of the tutoring hour per session, they consider the tutorial program highly effective and is perceived as a valuable and successful educational support that significantly enhances student learning. While there may not be studies directly addressing teachers' preferences for 1-hour versus 2-hour tutoring sessions, subjective evidence and professional recommendations often suggest that shorter, more frequent sessions may be preferable for maintaining student engagement and attention span. However, this preference may vary depending on the subject matter, student needs, and teaching style.

Table 19. *When grouped according to the preferred tutoring hour per session of teacher respondents*

Tutoring Hour/Session	Mean	Description
1 hr/session	4.46	Very Effective
2 hr/session	4.57	Very Effective

Table 20 indicates the difference in the tutorial program's effectiveness level when grouped according to the preferred hourly rate of teacher respondents. For 150 to 200 pesos per hour, it has a mean of 4.537; for 201 to 250 pesos per hour, it has a mean of 4.469. Both categories have a verbal description of very effective. The data conclude that they will deliver the same effectivity to the students regardless of the hourly rate. The study of VanLehn (2011) examines various tutoring systems and their effectiveness. It suggests that the competence and training of the tutor are more important than the cost of the tutoring sessions. High-quality tutoring, whether expensive or affordable, can significantly improve academic performance.

Table 20. *When grouped according to the preferred hourly rate of teacher respondents*

Hourly Rate	Mean	Description
150-200	4.54	Very Effective
201-250	4.47	Very Effective

3.4 Relationship Between Variables

Table 21 indicates the relationship between the level of effectiveness of the tutorial program perceived by the students and their academic performance in mathematics. The perceived level of effectiveness regarding tutorial classes has a value of 0.006, which shows a very weak relationship. The perceived level of effectiveness regarding the tutor has a value of -0.093, which is a very weak relationship. The perceived level of effectiveness regarding time and venue has a value of 0.115, which has a very weak relationship. Overall, they have a mean value of 0.009, which also has a very weak relationship.

Table 21. Relationship between the level of effectiveness of the tutorial program as perceived by the students and their mathematics academic performance

Academic Performance	Tutorial Classes	Tutor	Time and Venue
Spearman rho	0.006	-0.093	0.115
Relationship	Very Weak	Very Weak	Very Weak

The data reveal that the effectiveness of the tutorial program, as perceived by the students, and their academic performance in mathematics have a very weak relationship or association. In other words, the students' perception does not have a significant impact on their academic performance in mathematics, and different factors could have caused it. The study of Cohen et al. (1986) examines the effectiveness of various of educational interventions, including tutoring, and finds that students' perceptions of effectiveness do not always correlate strongly with objective academic outcomes. This suggests that students' subjective views on tutorial effectiveness may not always predict actual improvements in mathematics performance.

Table 22 exhibits the relationship between the level of effectiveness of the tutorial program perceived by the parents and the student's mathematics academic performance. The perceived level of effectiveness regarding tutorial classes has a value of 0.060, which shows a very weak relationship. The perceived level of effectiveness regarding the tutor has a value of -0.087, which is a very weak relationship. The perceived level of effectiveness regarding time and venue has a value of 0.115, which has a very weak relationship. Overall, they have a mean value of 0.029, which also has a very weak relationship.

Table 22. Relationship between the level of effectiveness of the tutorial program as perceived by the parents and the student's mathematics academic performance

Academic Performance	Tutorial Classes	Tutor	Time and Venue
Spearman rho	0.060	-0.087	0.115
Relationship	Very Weak	Very Weak	Weak

The data show that the relationship between the level of effectiveness of the tutorial program as perceived by the parents and the student's mathematics academic performance is very weak. In other words, the parents' perception does not significantly influence the student's academic performance in mathematics, and different factors could have caused it. The study of Hoover-Dempsey and Sandler (1997) explores the reasons behind parental involvement and their perceptions of educational programs. It suggests that while parents may believe that tutoring programs are effective, their perceptions do not always correlate with their children's academic achievements, including mathematics.

Table 23 shows the relationship between the level of effectiveness of the tutorial program perceived by the teachers and the student's mathematics academic performance. The perceived level of effectiveness regarding tutorial classes has a value of -0.130, which shows a weak relationship. The perceived level of effectiveness regarding the tutor has a value of -0.010, which is a very weak relationship. The perceived level of effectiveness regarding time and venue has a value of 0.026, which has a very weak relationship. Overall, they have a mean value of -0.038, which also has a very weak relationship.

Table 23. Relationship between the level of effectiveness of the tutorial program as perceived by the teachers and the student's mathematics academic performance

Academic Performance	Tutorial Classes	Tutor	Time and Venue
Spearman rho	-0.130	-0.010	0.026
Relationship	Weak	Very Weak	Very Weak

The data reveal that the relationship between the level of effectiveness of the tutorial program as perceived by the teachers and the student's mathematics academic performance is very weak. In other words, the teachers'

perception does not significantly impact the student's academic performance in mathematics, and other factors could have caused it. The study of Kane and Staiger (2008) evaluates the impact of teachers on student achievement. It highlights that teachers' perceptions of the effectiveness of various interventions, including tutoring, do not always align with measurable improvements in student performance, including mathematics. This suggests a potentially weak correlation between perceived and actual effectiveness.

4.0 Conclusion

The study conducted at Saint Louis School of Don Bosco, Inc., has provided comprehensive insights into the effectiveness of its tutorial program across various aspects. It reveals that the program predominantly attracts male students, particularly those in Grade 7 and students aged 12 to 13. These findings underscore a demographic skew towards younger male students actively engaging with the tutorial services offered by the school. Furthermore, most students participating in the tutorial program come from low-income families, highlighting the program's accessibility and relevance to economically disadvantaged students.

In terms of engagement and preferences, the study identifies a clear preference for regular tutorial sessions among both students and parents, signaling a perceived value in frequent academic support. Parents typically opt for tutoring rates between 150-200 pesos per hour, indicating a balance between affordability and the perceived quality of the school's tutoring services. Teachers involved in the tutorial program, particularly those with 2 to 5 years of teaching experience, primarily focus on Mathematics and Filipino subjects, conducting 1-hour sessions that align with the student's academic needs and preferences.

Overall, stakeholders – students, parents, and teachers – consistently perceive the tutorial program as effective in enhancing academic progress and supporting student learning outcomes. This positive perception is further substantiated by students achieving high grades and demonstrating mastery of core subjects, indicating the program's tangible impact on educational outcomes. However, it is noteworthy that while the tutorial program is widely regarded as effective, correlations between stakeholders' perceptions and students' mathematics performance appear weak. This suggests that while the program plays a crucial role in supporting academic development, other factors beyond the program's effectiveness may also influence students' overall academic performance and achievement.

5.0 Contributions of Authors

The authors confirm their equal contribution to every part of this research. All authors reviewed and approved the final version of this paper.

6.0 Funding

This work received no specific grant from any funding agency.

7.0 Conflict of Interests

The authors declare no conflicts of interest.

8.0 Acknowledgment

The authors express their gratitude to all the unwavering support and ceaseless encouragement they received throughout the conduct of the study.

9.0 References

- Baker, S., Gersten, R., & Lee, D. (2002). A synthesis of empirical research on teaching mathematics to low-achieving students. *Elementary School Journal*, 103(1), 51-73. <https://www.journals.uchicago.edu/doi/10.1086/499715>
- Bloom, D. E., Canning, D., & Fink, G. (2008). Urbanization and the wealth of nations. *Science*, 319(5864), 772-775. <https://www.science.org/doi/10.1126/science.1153057>
- Calmorin, L., & Calmorin, M. (2007). Research methods and thesis writing. Sampaloc, Manila: Rex Book Store, Inc.
- Chan, M., Kwon, J., Nguyen, D., Saunders, K. M., Shah, N., & Smith, K. N. (2020). National trends in federal student loan borrowing by income group and first-generation status. Retrieved from <https://www.airweb.org/resources/publications/professional-file/article-148>
- Cohen, P. A., Kulik, J. A., & Kulik, C. L. (1982). Educational outcomes of tutoring: A meta-analysis of findings. *American Educational Research Journal*, 19(2), 237-248. <https://journals.sagepub.com/doi/10.3102/00028312019002237>
- Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage Publications.
- Dynarski, S., Hyman, J., & Schanzenbach, D. W. (2013). Experimental evidence on the effect of childhood investments on postsecondary attainment and degree completion. *Journal of policy analysis and management*, 32(4), 692-717. <https://onlinelibrary.wiley.com/doi/10.1002/pam.21715>
- Guryan, J., Ludwig, J., Bhatt, M. P., Cook, P. J., Davis, J. M., Dodge, K., ... & Stoddard, G. (2023). Not too late: Improving academic outcomes among adolescents. *American Economic Review*, 113(3), 738-765. <https://doi.org/10.1257/aer.20210434>
- Hattie, J., & Zierer, K. (2017). 10 mindframes for visible learning: Teaching for success. Routledge. <https://doi.org/10.4324/9781315206387>
- Hoover-Dempsey, K. V., & Sandler, H. M. (1997). Why do parents become involved in their children's education?. *Review of educational research*, 67(1), 3-42. <https://doi.org/10.3102/00346543067001003>
- Kane, T. J., & Staiger, D. O. (2008). Estimating teacher impacts on student achievement: An experimental evaluation. Retrieved from <https://doi.org/10.3386/w14607>
- Kraft, M. A., Bolves, A. J., & Hurd, N. M. (2023). How informal mentoring by teachers, counselors, and coaches supports students' long-run academic success. *Economics of Education Review*, 95, 102411. <https://doi.org/10.3386/w31257>

- Lamont, M., Beljean, S., & Clair, M. (2014). What is missing? Cultural processes and causal pathways to inequality. *Socio-Economic Review*, 12(3), 573-608. <https://doi.org/10.1093/ser/mwu011>
- Morgan, M. (2018). The importance of mathematics. In R. M. Reilly, G. A. M. Marais, & L. Green (Eds.), *Mathematics education in South Africa: The first 21 years* (pp. 5-17). HSRC Press.
- Morris, E.D. (no date) Sampling from small populations, Sampling from Small Populations. Retrieved from [https://uregina.ca/~morrisev/Sociology/Sampling from small populations.htm](https://uregina.ca/~morrisev/Sociology/Sampling%20from%20small%20populations.htm)
- Narzoles, D.G., & Palermo, D. G. (2020). Effectiveness of tutorials in improving the academic performance of english language learners. *International Journal of Language and Literary Studies*, 2(3), 141-152. <https://doi.org/10.36892/ijlls.v2i3.380>
- Pollard, E. H. C., Martin, A., Takala, H., & Byford, M. (2019). Impact of the student finance system on participation, experience and outcomes of disadvantaged young people. Retrieved from <https://doi.org/10.1002/cl2.1406/v5/review1>
- Reardon, S. F. (2021). The economic achievement gap in the US, 1960-2020: Reconciling recent empirical findings. Retrieved from <https://files.eric.ed.gov/fulltext/ED620595.pdf>
- Reay, D. (2005). Doing the dirty work of social class? Mothers' work in support of their children's schooling. *The Sociological Review*, 53(2_suppl), 104-115. <https://doi.org/10.1111/j.1467-954x.2005.00575.x>
- Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrica*, 73(2), 417-458. <https://doi.org/10.3386/w6691>
- Robinson, C. D., Kraft, M. A., Loeb, S., & Schueler, B. E. (2021). Accelerating student learning with high-dosage tutoring. Retrieved from <https://files.eric.ed.gov/fulltext/ED613847.pdf>
- Seo, E. H. (2018). Private tutoring and academic achievement: Self-study as a mediator. *Social Behavior and Personality: An International Journal*, 46(5), 823-830. <https://doi.org/10.2224/sbp.6689>
- Shokirova, M., & Rasulov, I. (2024). Private Tutoring and its effect on students' learning performance. *Journal of Language Development and Linguistics*, 3(1), 1-8. <https://doi.org/10.55927/jldl.v3i1.8100>
- Slavin, R. E., & Lake, C. (2008). Effective programs in elementary mathematics: A best-evidence synthesis. *Review of educational research*, 78(3), 427-515. <https://doi.org/10.3102/0034654308317473>
- Steinberg, L., & Icenogle, G. (2019). Using developmental science to distinguish adolescents and adults under the law. *Annual Review of Developmental Psychology*, 1(1), 21-40. <https://doi.org/10.1146/annurev-devpsych-121318-085105>
- Topping, K. J. (1996). The effectiveness of peer tutoring in further and higher education: A typology and review of the literature. *Higher Education*, 32(3), 321-345. <https://doi.org/10.4324/9780203761212-10>
- VanLehn, K. (2011). The relative effectiveness of human tutoring, intelligent tutoring systems, and other tutoring systems. *Educational psychologist*, 46(4), 197-221. <https://doi.org/10.1080/00461520.2011.611369>
- Woodward, J., Carnine, D., & Gersten, R. (2016). Teaching problem-solving skills. In L. Swanson, K. Harris, & S. Graham (Eds.), *Handbook of learning disabilities* (2nd ed., pp. 298-315). Guilford Press.
- Xixi, L. (2003). A Survey of Tutorial Preparation and Participation. *CDTL Brief*. Vol. 6, No. 10
- Zheng, X., Wang, C., Shen, Z., & Fang, X. (2020). Associations of private tutoring with Chinese students' academic achievement, emotional well-being, and parent-child relationship. *Children and Youth Services Review*, 112, 104934. <https://doi.org/10.1016/j.childyouth.2020.104934>