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Measuring the Learning Performance of Students from Community-Friendly Schools in Hong Kong

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Abstract

This research focuses on evaluating the learning attitude and performance of students from community-friendly schools in Hong Kong. The concept of community-friendly schools, being firstly introduced and implemented by CCC Tam Lee Lai Fun Memorial Secondary School, is relatively new in Hong Kong. Community-friendly schools can be defined as institutions that create a platform for interaction and mutual learning between students and community members. They achieve this by integrating community elements into the curriculum, cooperating with external organizations, and providing social services that benefit students, schools and the community. The study adopts a descriptive mixed research method, utilizing questionnaires and interviews as data gathering instruments. The performance of these schools is assessed in terms of their impact on students' engagement in the learning activities, learning attitudes, and academic performance. These aspects are evaluated through three levels of activities - community learning activities, the activities cooperated with community organizations and community services organized by the school. Data analysis incorporates descriptive statistics, Analyses of Variance, and linear regression models, showcasing the noteworthy effects of these institutions. It scrutinizes shifts in students' behavior prior to and post enrolment, revealing significant positive correlations between the level of student engagement in community activities and improvements in learning attitude and academic performance. This evaluation framework aims to provide insights into the effectiveness of community-friendly schools in achieving educational and social objectives.

Keywords: learning motivation, learning attitude, academic performance, community-friendly schools, experiential learning, service learning, community-based learning

1. Introduction

1.1. Background of the Study

The educational landscape in Hong Kong is undergoing significant changes due to various challenges, including a declining birth rate, increased competition among schools, and a more

diverse student population with growing special education needs[1] (Education Bureau, 2023; Education Bureau, 2024; Ho and Lu, 2019; Chen et. al., 2024). Schools are now focusing on building their reputation by offering well-rounded education that includes innovative, community-linked learning opportunities. This approach is crucial as traditional academic competition alone is no longer sufficient to attract and retain students. In this context, schools are increasingly required to create inclusive and adaptive learning environments that cater to diverse student needs, particularly through interactive and experiential learning. While technology and AI can enhance learning, they can't replace hands-on experiences essential for developing empathy, problem-solving, and adaptability—skills critical for future success. Zahidi et al. (2020) highlight that gaps in critical thinking, self-management, and collaboration are the main barriers to adopting advanced technologies. Thus, a balance between tech tools and real-world experiences is crucial for holistic growth.

Aligning with global trends like the "Future of Schooling" initiative by the Organisation for Economic Co-operation and Development (OECD), there is increasing agreement that schools should transform into community-integrated learning hubs. *Schools remain, but diversity and experimentation are the norm. Opening the "school walls" connects schools to their communities, favouring ever-changing forms of learning, civic engagement and social innovation (OECD, 2020).* This model promotes schools as centers of lifelong learning where students, educators, and community members collaborate to address local challenges, thereby enhancing the relevance and impact of education in preparing students for an uncertain future (OECD, 2020). Schools are adapting by forming local partnerships and incorporating real-world issues into their curricula, creating more meaningful learning experiences. Teachers are shifting to flexible, student-centered methods that foster collaboration and problem-solving, preparing students for active roles in their communities and future careers.

Given these dynamics, CCC Tam Lee Lai Fun Memorial Secondary School (TLLF) has embraced the concept of "community-friendly schools"[2] by introducing the "1.5km Experiential Learning Circle"[3]. This initiative aims to utilize local resources and address community issues, creating meaningful learning experiences that not only enrich students' education but also prepare them to contribute effectively to their community in the present and to society as a whole in the future. A hierarchical model has been developed to advance community-friendly schools through three levels: community-based learning activities, collaborative learning with external organizations, and community services organized by the school.

At the first level, the school incorporates community elements into the curriculum, organizing activities like local site visits and interviews to deepen students' understanding of their community. The second level focuses on partnerships with external organizations, enhancing experiential learning through collaborative curriculum design and activities. At the third level, the school involves students in community service, offering programs that benefit both students

[1] According to the Education Bureau, The number of students with Special Educational Needs in public sector ordinary primary and secondary schools increased from 49,080 in the 2018/19 school year to 64,220 in the 2023/24 school year.

[2] Community-friendly schools can be defined as institutions that create a platform for interaction and mutual learning between students and community members. They achieve this by integrating community elements into the curriculum, cooperating with external organizations, and providing social services that benefit students, schools, and the community

[3] The 1.5km Experiential Learning Circle integrates community-based learning, experiential learning, and service learning. The school identifies suitable community resources and topics within a 1.5km radius, inviting community members and organizations to collaborate with students in the learning process. This approach merges curriculum design, interdisciplinary collaboration, and external resources, positioning the school as a platform for both community service and shared learning experiences.

and local residents, thereby reinforcing the school's role as a community hub. This model enriches student learning while strengthening the connection between the school and the broader community.

The concept of community-friendly schools is relatively new, with limited research available on their effectiveness. Most existing studies focus on service-learning, experiential learning, or community-based learning as separate approaches. For example, Astin et al. (2000) examine the impact of service-learning on students' academic and civic growth, while Giles and Eyler (1994) explore its influence on personal and cognitive development. In addition, many studies emphasize the effects of community schools at the macro (societal impact) and meso (community or neighborhood outcomes) levels. However, fewer assessments specifically examine the impact of community schools on students' educational performance at the micro level (Reina et al., 2014). This research seeks to address that gap by evaluating the combined effects of these approaches on individual students' learning habits, motivation, and academic outcomes within a community-friendly school framework. By focusing on the micro level, it aims to assess how an integrated approach can influence students' overall educational experience.

This research aims to address these gaps by introducing a framework with three primary objectives: (1) to measure the performance of community-friendly schools in terms of both educational and social values, (2) to determine the impact of these schools on students' learning outcomes, and (3) to foster greater accountability of schools to society. By integrating these objectives, the study seeks to provide a more holistic and accurate assessment of how community-friendly schools contribute to student development.

1.3. Significance of the Study

The significance of this study lies in its potential to advance the field of education by addressing critical gaps in evaluating the performance of community-friendly schools in Hong Kong, particularly concerning their educational and social impacts on the local community. This research has far-reaching implications for various stakeholders, including educators, policymakers, and school administrators.

First, the study's findings are expected to inform the development of more comprehensive performance measurement frameworks that accurately capture the full spectrum of contributions made by community-friendly schools. By shifting the focus beyond traditional academic outcomes, this research proposes an integrated approach that includes both educational and social value indicators. This can guide schools in Hong Kong and beyond in recognizing and enhancing their roles as agents of social betterment.

Second, the study offers valuable insights into the broader impacts of community-friendly schools on students' learning outcomes. By determining how these schools influence not only academic achievement but also social and cognitive development, the research provides evidence that can support more effective educational practices. This holistic approach benefits both students and the wider community, fostering stronger ties and promoting social cohesion.

Moreover, the findings of this study have significant implications for policy decisions related to school evaluation and support in Hong Kong. By highlighting the societal contributions of community-friendly schools, policymakers can develop targeted policies that recognize and incentivize the social roles of these institutions. This may include revising existing performance measurement frameworks to incorporate indicators that reflect schools' contributions to community development and social capital formation.

Furthermore, the study provides practical guidance for schools seeking to implement community-oriented approaches. Through detailed case studies, the research explores the

successes and challenges faced by community-friendly schools in Hong Kong, offering actionable insights for other schools looking to balance educational goals with community needs. This is particularly relevant for schools aiming to foster long-term social impact alongside academic excellence.

Finally, this study advocates for a reevaluation of how school performance is assessed, emphasizing the need for a broader approach that goes beyond academic metrics. By proposing a new framework that measures both educational and social impact, this research contributes to the growing recognition that education systems should support not only academic achievement but also the overall development of students and their communities. The study's findings are expected to influence policy reforms and contribute to a more comprehensive understanding of the role of schools in community development.

1.4. Research Questions

1. How effective is the community-friendly school at improving the students' learning motivation?
2. How effective is the community-friendly school at enhancing the students' academic performance?
3. What effect does the students' involvement in the program of the community-friendly school and the students' learning motivation and academic performance have?

2. Methodology

2.1. Research Design

This exploratory study seeks to fill gaps in understanding schools' performance in educational and social accountability. It uses a mixed-method approach, combining qualitative and quantitative data to provide a comprehensive analysis. According to Creswell et al. (2003), mixed-method research involves collecting and analyzing both data types, either concurrently or sequentially, with one often prioritized. This method mitigates the limitations of using only one approach (Creswell & Creswell, 2018).

The research began with a quantitative survey, followed by qualitative interviews with a randomly selected subset of participants to enrich the initial findings. Three paper-and-pencil questionnaires were distributed to students, teachers, and community stakeholders. Comparative analysis highlighted mean differences across these groups, while correlation analysis examined relationships between variables, such as students' involvement in community-school programs and their understanding of and willingness to serve their community.

Semi-structured interviews offered in-depth insights into students' and teachers' experiences with community learning activities, despite the time-intensive nature of data analysis (Marshall & Rossman, 2016). Using a convergent parallel mixed methods approach, the study separately analyzed quantitative and qualitative data before integrating the findings to achieve a comprehensive understanding.

2.2. Population and sampling

The study targeted community-friendly schools in Hong Kong, with a focus on TLLF, which is actively engaged in community-based projects and initiatives. For the quantitative phase, a total of 148 participants were selected using a representative sampling approach, comprising 80 students, 20 teachers, and 30 community stakeholders. For the qualitative phase, eight participants were chosen for in-depth interviews.

A simple random sampling technique was utilized to ensure a fair representation of opinions across the different groups for the survey. For the qualitative phase, a homogeneous sampling technique was used to select the eight interview participants who had direct experience with the school's community initiatives. This selection aimed to capture detailed insights into their experiences and perceptions.

Data analysis for the quantitative survey involved using descriptive statistics to discern trends and patterns in the responses. The qualitative interview data were analyzed through thematic analysis, which included coding, categorizing, and identifying key themes. This method provided a deeper understanding of participants' experiences and perceptions of the school's community initiatives. Combining both quantitative and qualitative data offered a comprehensive view of the impact and effectiveness of the school's community engagement efforts.

2.3. Data Collection Instruments

The study employed three sets of structured questionnaires to collect data from students, teachers, and community stakeholders regarding their perceptions of community-friendly school initiatives. The questionnaires for students and teachers focused on how these initiatives at three different levels influence students' learning attitudes and their academic performance. These questionnaires comprised 55 items, each rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). For the community stakeholders, the questionnaire focused on evaluating how school-organized community services serve educational purposes and benefit students, comprising 14 targeted questions. Meanwhile, semi-structured interviews were conducted with selected participants to gain deeper insights into their experiences and perspectives regarding the school's community-friendly programs. This qualitative approach allowed for an in-depth exploration of how these initiatives affected participants' learning attitudes and academic performance, providing a richer understanding of individual and collective experiences.

2.4. Ethical Considerations

Ethical approval for this study was obtained from the management of TLLF and parents of interviewees. Participants received an introductory letter detailing the study's purpose, procedures, and their rights, including the right to withdraw at any time without facing any consequences.

Informed consent was obtained from all participants, ensuring they fully understood the study's goals and the intended use of the data collected. Additionally, written consent was secured from the parents or guardians of the students, permitting their participation in the questionnaire process.

To ensure confidentiality, codes were assigned to all questionnaires and interviews to protect participants' identities. Every effort was made to maintain anonymity in the data presentation, ensuring that individual responses could not be linked to specific participants.

2.5. Data Processing and Analysis

Quantitative data from the questionnaires were analyzed using SPSS software, where descriptive statistics, such as means and standard deviations, were calculated to identify trends in the effectiveness of community-friendly school initiatives on student engagement and academic performance. Analysis of Variance (ANOVA) was conducted to assess significant differences in students' engagement levels with community-based activities in relation to their learning motivation and academic performance. Chi-Square Tests validated the Repeated-

Measures ANOVA results, and regression analysis was used to explore how these activities influence students' motivation and performance.

Qualitative data from semi-structured interviews were examined through thematic analysis. The interviews were transcribed, coded, and analyzed to uncover common themes and insights into participants' experiences with community-friendly programs. By integrating quantitative and qualitative data, the study provided a comprehensive understanding of the impact of community-friendly schools on students.

3. Results and Discussion

3.1. Research Question 1:

Table 1.
The views towards community learning activities on students' learning motivation

Survey Items	Students N=86		Teachers N=19	
	M	SD	M	SD
On the willingness to learn Questions: … made me (my students) more willing to learn.				
The learning activities in the community	*3.63*	*0.96*	*4.11*	*0.88*
The learning activities cooperated with the external organizations	*3.72*	*1.02*	*3.95*	*0.91*
The community services/activities organized by the schools	*3.72*	*1.10*	*4.05*	*0.97*
On the learning motivation Questions: After participating in …, I (my students) have higher learning motivation.				
the learning activities in the community	*3.64*	*1.07*	*4.00*	*0.94*
the learning activities cooperated with the external organizations	*3.67*	*1.02*	*3.95*	*0.85*
the community services/activities organized by the schools	*3.84*	*1.16*	*4.05*	*0.91*
On the learning confidence Questions: After participating in …, I (my students) am/are more confident in learning.				
the learning activities in the community	*3.64*	*1.06*	*4.05*	*0.85*
the learning activities cooperated with the external organizations	*3.87*	*1.01*	*3.89*	*0.88*
the community services/activities organized by the schools	*3.80*	*1.07*	*4.05*	*0.91*
On the learning attitude Questions: … enhance my (my students') attitude or confidence towards learning.				
The learning activities in the community	*3.74*	*0.97*	*4.05*	*0.91*
The learning activities cooperated with the external organizations	*3.70*	*1.01*	*4.16*	*0.90*
The community services/activities organized by the school	*3.84*	*1.08*	*4.11*	*0.88*

Table 1 summarizes the perceptions of students and teachers regarding the influence of community learning activities on students' learning motivation, confidence, and attitude. The analysis includes mean (M) and standard deviation (SD) scores for each item, highlighting how

these activities impact students' willingness to learn, motivation, confidence, and attitude toward learning.

Students rated their willingness to learn after participating in community learning activities at 3.63 (SD=0.96), while teachers rated it higher at 4.11 (SD=0.88). This discrepancy suggests that teachers perceive a greater positive impact on students' willingness to learn from these activities. Similarly, learning activities in cooperation with external organizations were rated 3.72 (SD=1.02) by students and 3.95 (SD=0.91) by teachers, indicating both groups recognize the value of these partnerships, though teachers see a slightly higher impact. Community services organized by schools were perceived as beneficial by both students and teachers, with ratings of 3.72 (SD=1.10) and 4.05 (SD=0.97), respectively.

When it comes to enhancing learning motivation, students rated the impact of community activities at 3.64 (SD=1.07), while teachers again provided a higher rating of 4.00 (SD=0.94). The cooperation with external organizations garnered similar scores from students (3.67, SD=1.02) and teachers (3.95, SD=0.85), reflecting a consensus on its positive influence on motivation. Community services organized by schools received the highest ratings among the activities, with students at 3.84 (SD=1.16) and teachers at 4.05 (SD=0.91), highlighting their strong motivational impact.

Regarding learning confidence, students reported a mean score of 3.64 (SD=1.06) after participating in community activities, whereas teachers rated it more positively at 4.05 (SD=0.85). Activities in cooperation with external organizations were seen as particularly confidence-boosting by students (M=3.87, SD=1.01), with teachers providing a slightly lower rating (M=3.89, SD=0.88). The confidence gained from community services organized by schools was also rated highly, with students giving it 3.80 (SD=1.07) and teachers 4.05 (SD=0.91).

Finally, the impact of these activities on learning attitude was positive, with students rating community activities at 3.74 (SD=0.97) and teachers at 4.05 (SD=0.91). Activities with external organizations were rated similarly by students (M=3.70, SD=1.01) and slightly higher by teachers (M=4.16, SD=0.90). Community services organized by the school received favorable ratings from both groups, with students assigning them 3.84 (SD=1.08) and teachers 4.11 (SD=0.88).

The students provided close and consistent ratings, ranging from a low of 3.63 for the impact of community learning activities on their willingness to learn to a high of 3.84 for the boost in confidence from activities involving external organizations. In contrast, teachers' ratings ranged from a low of 3.95 for the effects of external collaborations on students' willingness and motivation to learn to a high of 4.16 for the influence of these collaborations on students' learning attitudes. These differences suggest that while both groups recognize the benefits of community learning activities, teachers tend to perceive a greater positive impact across all areas.

A Secondary Two student (S1) from TLLF mentioned that:
It's great when elderly people join your class. You find it easy to get along with them. The elderly are willing to communicate with us, making it easy to understand them. My motivation for learning in class would be greater, for example, we might ask them questions or hope to get some answers or have discussions with them. It could increase my motivation for learning and give me more confidence in learning. I usually find classes a bit boring, but with the elderly present, there's more interaction and it feels more interesting.

A Secondary five student (S2) mentioned that:

I think there is a big difference between attending classes in the classroom and outside the classroom. I cannot say I cannot learn anything (in the classroom), but integrating with nature makes me happier and more willing to learn. Both methods consolidate my learning, but I prefer to experience it personally rather than just learning from books. After all, there is no substitute for learning on the spot. Therefore, with that immersive collective experience, there is more reflection. Reading in books will not give you much feeling, but after experiencing it yourself, you will have more emotions, experiences, and so on, so you will have more resonance.

A teacher (T1) from TLLF stated that:
When elders participate in classroom activities with students, students' enthusiasm and initiative are usually stronger compared to regular classes because they might actively seek to understand why the elders are involved and what difference it makes. Also, there might be a higher level of engagement in the classroom discussions.

Another teacher (T2) also provided insights that:
My students explore and research community issues on their own. I feel that they are... it is not like the usual classroom lectures, which may be one-way interaction. These types of (community) activities often combine not only knowledge but also practical learning activities, taking them out of the classroom to understand community issues. Actually, their response was very good. They could understand more about their own community, and their memories are deeper, and their involvement.

Overall, teachers consistently rated the impact of community learning activities higher than students across all areas, suggesting that while students recognize the benefits, teachers believe these activities have an even more significant positive effect on students' learning motivation, confidence, and attitude.

3.2. Research Question 2:

Table 2.
The views towards community learning activities on students' academic performance

	Students		Teachers		Community Stakeholders	
Survey Items	M	SD	M	SD	M	SD
On the relevance of community learning activities						
The community services/activities organized by the school are for educational purposes.	*3.91*	*0.94*	*4.21*	*1.03*	*4.44*	*0.88*
On the academic performance Questions: After participating in …, I (my students) have better academic performance.						
the learning activities in the community	*3.37*	*1.09*	*3.47*	*0.96*		
the learning activities cooperated with the external organizations	*3.56*	*1.12*	*3.53*	*0.90*		
the community services/activities organized by the school	*3.47*	*1.17*	*3.53*	*0.90*		

Table 2 presents the perceptions of students, teachers, and community stakeholders regarding the impact of community learning activities on students' academic performance. The relevance of community services and activities organized by schools for educational purposes was evaluated by students, teachers, and community stakeholders. Students rated these activities with a mean of 3.91 (SD=0.94), suggesting they see a moderate educational value. Teachers

rated these activities slightly higher at 4.21 (SD=1.03), indicating a stronger belief in their educational relevance. Community stakeholders gave the highest rating of 4.44 (SD=0.88), reflecting a strong consensus that these activities are highly relevant to educational objectives.

In terms of academic performance, students reported a moderate impact from community learning activities, rating them at 3.37 (SD=1.09). Teachers also rated the impact similarly, with a mean of 3.47 (SD=0.96), suggesting they observe a modest improvement in students' academic performance after participating in these activities. For learning activities in collaboration with external organizations, students provided a slightly higher rating of 3.56 (SD=1.12), while teachers rated the impact at 3.53 (SD=0.90). Both groups perceive these activities as having a somewhat positive influence on academic performance, though not significantly so. When evaluating the academic impact of community services or activities organized by schools, students rated them at 3.47 (SD=1.17), and teachers gave a similar mean rating of 3.53 (SD=0.90). It is important to note that the standard deviations were relatively high, suggesting some variability in the responses. These ratings suggest that while there is some perceived benefit to academic performance from these activities, the impact is moderate.

T1 emphasized that conducting community learning activities result in higher-quality outcomes than regular classroom activities:
If we were to conduct these activities purely as Chinese language or Humanities classes, students might not feel as connected to the community. They might not see the significance, similar to just completing assignments or tests as instructed by the teacher. However, activities like "Food guide in Hung Kiu" conducted last year involve training on the understanding of the community with participation with elders. They explore the place in the neighborhood, conduct interviews, and document their findings. This level of engagement and depth in their work may result in higher-quality outcomes than regular classroom activities. Students would likely invest more effort and thought into planning and execution, rather than just following a prescribed framework.

In summary, the data highlights that while students, teachers, and community stakeholders all recognize the educational relevance of community learning activities, their impact on academic performance is perceived as not very significant. Teachers and community stakeholders, in particular, view these activities as valuable, with community stakeholders expressing the strongest belief in their relevance. Additionally, the in-depth engagement fostered by these activities, as noted by T1, can lead to higher-quality outcomes compared to traditional classroom settings.

3.3. Research Question 3:

Table 3.
The relationship between students' involvement and their learning motivation

Areas	Multiple R	R Square	Coefficients	Standard Error	t Stat	P-value
The learning activities in the community	0.6830	0.4665	1.2807	0.3037	4.2166	0.00006**
The learning activities cooperated with the external organizations	0.7993	0.6389	0.7240	0.2620	2.7635	0.007026**
The community services/activities	0.5923	0.3508	1.5337	0.3317	4.6241	0.00001**

organized by the school						

Note. Statistical significance at the p<0.05 level indicated by * and p<0.01 level indicated by **

Table 3 illustrates the relationship between students' involvement in different community activities and their learning motivation. Three key areas were examined: learning activities within the community, learning activities in cooperation with external organizations, and community services organized by the school.

The analysis of students' participation in various community activities reveals a positive relationship between their engagement and their learning motivation. Specifically, involvement in learning activities within the community showed a moderate positive correlation, with a Multiple R value of 0.6830 and an R Square of 0.4665, indicating that 46.65% of the variance in learning motivation can be attributed to these activities. The statistically significant p-value (0.00006) further underscores the reliability of this relationship.

Learning activities involving external organizations demonstrated an even stronger positive correlation, with a Multiple R value of 0.7993 and an R Square of 0.6389, explaining 63.89% of the variance in learning motivation. The significance of this relationship is further supported by a t Stat of 2.7635 and a p-value of 0.007026.

Additionally, community services organized by the school showed a positive relationship with learning motivation, reflected in a Multiple R value of 0.5923 and an R Square of 0.3508, indicating that 35.08% of the variance in learning motivation can be explained by these activities. The t Stat of 4.6241 and p-value of 0.00001 further affirm the strength and significance of this relationship.

The analysis combined statistics from three types of community activities to examine whether students' involvement in a community-friendly school program positively influences their learning motivation. The regression analysis supports the hypothesis of a positive correlation between students' involvement in these programs and their learning motivation. The equation $Y=0.8140X+1.954$ indicates that greater student engagement leads to higher learning motivation. The model explains approximately 81.4% of the variability in learning motivation, confirming the significance of this relationship.

Table 4.
The relationship between students' involvement and their academic performance

Areas	Multiple R	R Square	Coefficients	Standard Error	t Stat	P-value
The learning activities in the community	0.6845	0.4685	1.4858	0.2798	5.3104	8.79867E-07**
The learning activities cooperated with the external organizations	0.7378	0.5443	1.2970	0.2621	4.9483	3.80187E-06**
The community services/activities organized by the school	0.7231	0.5229	1.3315	0.2574	5.1720	1.54811E-06**

Note. Statistical significance at the p<0.05 level indicated by * and p<0.01 level indicated by **

Table 4 focuses on the relationship between students' involvement in various community-related activities and their academic performance.

The analysis of learning activities in the community revealed a positive correlation with academic performance, demonstrated by a Multiple R value of 0.6845. The R Square value of 0.4685 indicates that 46.85% of the variance in academic performance can be attributed to participation in community-based learning activities. This relationship is further supported by a statistically significant t Stat value of 5.3104 and a p-value of 8.79867E-07. Similarly, learning activities with external organizations also exhibited a positive correlation with academic performance, with a Multiple R value of 0.7378. The R Square value of 0.5443 suggests that 54.43% of the variance in academic performance can be linked to these collaborative efforts, and the significance of this relationship is reinforced by a t Stat value of 4.9483 and a p-value of 3.80187E-06. Additionally, community services organized by the school demonstrated a positive correlation with academic performance, shown by a Multiple R value of 0.7231. The R Square value of 0.5229 indicates that 52.29% of the variance in academic performance can be explained by participation in these school-organized activities, with a statistically significant t Stat value of 5.1720 and a p-value of 1.54811E-06 further highlighting the relevance of this relationship.

The analysis of 86 data pairs from three types of learning activities revealed a strong positive relationship between student engagement in community activities and improvement in academic performance, represented by the linear regression equation $Y = 0.8512 X + 0.8259$. The slope of 0.8512, with a 95% confidence interval of 0.7344 to 0.9680, indicates that higher engagement is significantly associated with greater academic improvement. The Y-intercept of 0.8259, with a confidence interval from -0.5347 to 2.187, estimates baseline improvement when engagement is minimal. The model's goodness of fit is demonstrated by an R^2 value of 0.7149, meaning 71.49% of the variance in academic performance improvement is explained by community engagement. An F-test confirmed the significance of the slope with an F value of 210.6 and a P value of less than 0.0001, supporting the hypothesis that increased participation in community activities leads to improved academic performance.

4. Discussion of Results

4.1. Key Findings

This study offers valuable insights into the effects of community learning activities on students' learning motivation, confidence, and academic performance. The data clearly demonstrate that involvement in community-oriented activities, whether through direct participation in the community, collaboration with external organizations, or school-organized services, positively influences various aspects of student development.

The study found that both students and teachers recognize the positive impact of community learning activities on students' learning motivation and confidence. Notably, teachers rated these impacts higher than students, which may indicate that educators have a broader understanding of the long-term benefits of such activities. Qualitative insights support these findings, with students noting that community interactions, such as engaging with the elderly or learning in natural settings, made learning more engaging, boosting their motivation and confidence. Teachers observed that students showed greater enthusiasm and deeper understanding during these activities. These results highlight the importance of incorporating community-based learning into educational curricula to foster a more motivated and confident student body. These community-based learning experiences involve students in activities that address human and community needs while also incorporating structured opportunities specifically designed to enhance student learning and development. By effectively merging service objectives with educational goals, these activities aim to bring about positive outcomes for both the recipients of the service and the students who provide it (Jacoby, 1996). Furthermore, these experiences offer greater potential for meaningful engagement compared

to traditional field experiences (Pappamihiel, 2007). By integrating the completion of tasks that meet human needs with intentional educational growth, they create a powerful combination that fosters both practical and intellectual development (Kendall, 1990).

Moreover, the statistical analysis in this study further supports the positive correlation between the level of student engagement in community activities and increased learning motivation, explaining 81.4% of the variability. These community learning activities can thrive students' intrinsic motivation through fulfilling three fundamental psychological needs—autonomy, competence, and social relatedness and providing them with opportunities for autonomy, allowing them to make decisions and manage tasks independently, enhancing their sense of volition and self-sufficiency (Ryan & Deci, 2017). Engaging in community activities can help students develop a sense of competence, as they gain new skills and see the impact of their contributions, reinforcing their belief in their own abilities (Froiland & Oros, 2013; Yeager et al., 2017). Additionally, the social interactions and shared goals within community settings can foster a deep sense of social relatedness, making students feel connected and valued by others (Davidson et al., 2010; Oudekerk et al., 2015). Thus, these experiences not only enhance students' engagement but also cultivate a powerful internal drive to pursue knowledge autonomously, free from external pressures (Schweder & Raufelder, 2024). These findings, therefore, underscore the importance of integrating community-based learning experiences into educational curricula to cultivate a more motivated student.

On the other hand, the results do not strongly support the hypothesis that students in community-friendly schools will experience significant academic improvement compared to their performance before admission. While both students and teachers acknowledged the relevance of community learning activities and their potential impact on academic outcomes, the mean ratings for academic improvement were not significantly higher. These findings suggest that, although community learning activities positively contribute to students' educational experiences, their direct influence on academic performance may be limited. This nuanced finding is consistent with the research of Astin and Sax (1998), who found that while service learning positively influences various student outcomes, its most profound effects are in fostering civic responsibility and enhancing life skills, rather than directly boosting academic performance. Similarly, as participation in non-academic activities involving adult interaction is linked to improved educational outcomes, such as higher test scores (Reina et al., 2014; Jordan & Nettles, 1999), the primary benefits of these experiences often lie outside traditional academic achievement. Although these experiences can enhance students' higher-order reasoning and critical thinking by providing opportunities for reflection over time (Ash, Clayton, and Atkinson, 2005), the magnitude of their effects on academic outcomes is generally smaller compared to their impact on civic engagement and practical life skills. Therefore, while community engagement plays a crucial role in overall student development, its direct effects on academic performance may be more modest. These educational activities might not align directly with standardized tests and exams, resulting in a relatively diminished correlation.

However, the study also indicates that increased engagement in community activities provided by a community-friendly school does lead to some improvement in academic performance. Student engagement is key to academic success, and community schools have demonstrated effective ways to enhance it (Reina et al., 2014). This aligns with the hypothesis that students who participate more actively in these activities tend to show better academic outcomes over time. Consequently, schools should consider these findings when designing educational strategies, integrating community activities not only for academic enhancement but also for broader developmental benefits.

4.2. Recommendations

In light of the findings and limitations identified in this study, we propose several key recommendations for future research aimed at enhancing the understanding and effectiveness of community-friendly schools.

To address the challenges of sampling and improve generalizability, future research will encompass a broader range of schools from various geographic regions and educational systems. By including schools from different educational contexts, the findings will be more generalizable and provide a comprehensive understanding of how community-friendly initiatives affect diverse educational environments. This approach will ensure that the impact of such initiatives is evaluated across a wider spectrum of settings, thereby enhancing the external validity of the research outcomes.

To gain deeper insights into the long-term effects of community-based learning activities, future studies should implement longitudinal research designs. Combining quantitative surveys with qualitative interviews at multiple time points will enrich the data and offer a more nuanced understanding of how these initiatives evolve over time. This approach will allow researchers to track changes and developments, providing a more detailed perspective on the enduring impacts of community-friendly programs on student outcomes.

The focus of research is on developing and pilot-testing advanced measurement tools to better capture complex variables such as community cohesion and academic growth. By refining these tools, researchers can more accurately assess the effects of community-based initiatives. Employing triangulation methods, which involve using multiple data sources and analytical techniques, will enhance the validity of results and minimize potential biases, leading to more robust and reliable findings.

It is crucial to engage a wide range of stakeholders, including students, teachers, parents, and community members, in the research process. Incorporating these diverse perspectives will ensure that the findings reflect a broad array of experiences and cultural contexts. This approach will enhance the relevance and applicability of the results, making them more representative of different viewpoints and settings, and improving the overall quality of the research.

Future research will adopt sophisticated data management and analysis systems to effectively handle complex datasets. By involving in both qualitative and quantitative research methods, rigorous analysis and interpretation of data can adopted. Utilizing advanced data management techniques will strengthen the overall quality and credibility of the research, facilitating more accurate and meaningful conclusions.

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