

Pantawid Pamilyang Pilipino Program, Human Capital Investments, Parents' Attitude and Learners' Academic Performance

Cheyser C. Briñosa¹, Annielyn A. Ighes², Marites B. Java³, Mary Jean S. Falsario⁴

¹Sultan Kudarat State University, ACCESS, Tacurong City
cheyser.cruz@deped.gov.ph

Copyright©2025 by Cheyser C. Briñosa, Annielyn A. Ighes, Marites B. Java, Mary Jean S. Falsario all rights reserved. Authors agree that this article remains permanently open access under the terms of the Creative Commons Attribution License 4.0 International License

Abstract

Parental involvement in both academic learning and extracurricular activities, alongside their overall attitude towards education, plays a pivotal role in the success of their children. This study determined the poverty reduction strategies and human capital investment programs on parents' attitudes towards education and learners' academic performance. Focusing on the 4Ps (Pantawid Pamilyang Pilipino Program) as a poverty reduction strategy, the research assesses how it influences parental support (encouragement, reinforcement, modeling, and instruction) and learners' achievements in South Cotabato. The parents prioritize education and health, with education receiving the highest emphasis, while nutrition is slightly less prioritized, suggesting the need to raise awareness about its role in child development. The parents exhibit a strong positive attitude towards education, with reinforcement and encouragement being the most prominent forms of support. However, there is a need for greater emphasis on instructional guidance. In terms of academic performance, learners consistently demonstrate satisfactory achievements in most subjects, with MAPEH being the highest and Mathematics the lowest performing subject. Despite the positive influence of the 4Ps program on parents' modeling behavior, it has no significant impact on academic performance, indicating that additional academic interventions are necessary. Moreover, specific parental behaviors, such as reinforcement and instruction, significantly influence human capital investment in education. The poverty reduction strategies positively affect parental attitudes and other developmental areas, further targeted interventions are needed to improve academic performance, particularly in subjects like Mathematics, and to support holistic child development.

Keywords: poverty reduction strategies, human capital investment, parental attitudes, education, academic performance

I. INTRODUCTION

Introduction: The increasing consensus around poverty reduction strategies is crucial for enhancing the living standards of students, with economic growth and strategic investments in health, nutrition, and education playing a significant role in addressing poverty.

The parental attitudes towards education are key in shaping children's development and academic success, emphasizing the importance of parental involvement both at home and in school activities (Bala, 2019; Almira et al., 2024). In the Philippines, positive parental attitudes have been linked to better student performance (Cuartero-Enteria & Taguiam, 2020; Sebastian et al., 2019), whereas negative attitudes tend to lead to low engagement and poorer outcomes (Tarraga et al., 2019). However, the lack of resources and support for disadvantaged parents, alongside ineffective poverty reduction policies,

often worsens the situation (Sukati, 2024; Aimee, 2022).

The academic performance of learners has consistently remained low for an extended period (Olivar & Napalan, 2023). Despite parental support, academic results have not significantly improved over the years, with parents appearing disengaged from educational matters, and schools making insufficient efforts to address the negative attitudes some parents hold toward education (Sayanna et al., 2021). Furthermore, children from poor families often lack the knowledge and resources necessary for success, as the systems designed to develop the capacity of disadvantaged parents are inadequate (Ocampo et al., 2021).

According to school profiling and LIS records, many students are identified as 4Ps recipients. However, despite receiving cash assistance, student participation and grades continue to be problematic. The financial support provided by 4Ps proves

insufficient to meet students' daily and educational needs, and the lack of parental involvement at home further contributes to the issue. Current literature predominantly focuses on parents' compliance with 4Ps requirements—ensuring their children attend school—rather than their active engagement in educational activities, such as assisting with homework or collaborating with teachers (Lima, 2019). Further research is required to explore how 4Ps and human capital investment programs can effectively address the poverty of parents and learners, particularly in the context of education.

This study aims to investigate the relationship between 4Ps as a poverty reduction strategy and human capital investment programs, examining their impact on parents' attitudes towards education and learners' academic performance. The study contributes to the limited body of literature on how 4Ps as a poverty reduction strategy can serve as a catalyst for change in students' academic outcomes.

It emphasized on the extent of Pantawid Pamilyang Pilipino Program (4P's) as poverty reduction strategy. It also examined the level of human capital investment programs in the areas of health, nutrition, and education. In addition, it evaluates the extent of parents' attitudes toward education, specifically focusing on aspects such as encouragement, modeling, reinforcement, and instruction. Furthermore, the study explores the level of learners' academic performance across various subjects, including English, Filipino, Mathematics, Science, Araling Panlipunan, Edukasyong Pantahanan at Pangkabuhayan (EPP), MAPEH, and GMRC. By investigating these factors, the study seeks to better understand how different aspects of parental involvement and investment impact student outcomes.

Moreover, the study aims to identify the significant relationships between several key variables. First, it explores the connection between poverty reduction strategies and parents' attitudes toward education. Next, it examines the relationship between poverty reduction strategies and learners' academic performance. Additionally, the study investigates the link between human capital investment programs and parents' attitudes toward education. Lastly, it assesses how human capital investment programs influence learners' academic performance. Through these analyses, the study aims to provide a comprehensive understanding of

how these factors intersect and contribute to educational outcomes.

Theoretical and Conceptual Framework: The Human Capital Theory (Woodhall, 1997) and Bronfenbrenner's Theory of Overlapping Spheres (1994) provide a strong theoretical foundation for this study, particularly in the areas of human capital investment, parental attitudes toward education, and learners' academic performance.

Human Capital Theory asserts that education is a valuable long-term investment that enhances the productivity of individuals. It posits that investments in formal education improve the cognitive and productive capacities of individuals, which, in turn, benefits the economy. This theory aligns with the 4Ps program, which offers financial support aimed at improving educational outcomes. According to this framework, financial assistance and education enhance both parental and child attitudes toward schooling, eventually leading to better academic performance (Almendarez, 2024; Cohen & Sotto, 2019). This approach highlights that higher educational attainment increases economic productivity and offers more opportunities for career advancement, benefiting not only the learners but also their parents and communities (Baro & Lee, 2019; Aimee, 2022).

Meanwhile, Bronfenbrenner's Theory of Overlapping Spheres underscores the interconnectedness of family, school, and community, and how these spheres interact to influence children's learning and development. This theory illustrates how practices in each of these areas, whether conducted separately or together, contribute to shaping the educational experiences of children (Bartolome et al., 2019). It suggests that collaborative relationships between parents, educators, and community organizations play a critical role in supporting students' academic achievement and overall development (Blair, 2019). This model serves as an effective framework for examining how the 4Ps program influences learners' academic performance by fostering positive interactions among these three spheres of influence.

In line with this approach, it is essential for schools to recognize that parental attitudes can vary significantly based on cultural backgrounds. These attitudes, behaviors, and values at home influence the way parents engage with their children's

education, and subsequently, affect the children’s academic performance. Understanding these cultural differences in parental mindsets can help identify the educational gaps, allowing schools to develop strategies to bridge them (Nihat & Gurbuzturk, 2019).

The involvement of parents in their children's education is crucial, as it plays a significant role in fostering both academic success and social development. When schools and homes work together to support children's education and socialization, the outcomes can be significantly more beneficial for students (Sayanna et al., 2021). Parents profoundly shape their children's attitudes and perceptions, guiding them in understanding the world around them. Through their interactions and teachings, children internalize their parents' values, beliefs, and behaviors, absorbing and mirroring these perspectives. In short, children tend to emulate their parents' attitudes, particularly in how they manage their upbringing (Bala, 2019).

1. What is the extent of Pantawid Pamilyang Pilipino Program (4P’s) as poverty reduction strategy in Tboli municipality?
2. What is the level of human capital investment program relative to
 - 2.1 health;
 - 2.2 nutrition; and
 - 2.3 education?
3. What is the extent of parents’ attitude towards education in terms of:
 - 3.1 encouragement;
 - 3.2 modeling;
 - 3.3 reinforcement; and
 - 3.4 instruction?
4. What is the level of learners’ academic performance in:
 - 4.1 English;
 - 4.2 Filipino;
 - 4.3 Mathematics;
 - 4.4 Science;
 - 4.5 Araling Panlipunan;
 - 4.6 EPP;
 - 4.7. MAPEH, and
 - 4.8 GMRC?

5. Is there a significant relationship between the poverty reduction strategy and parents’ attitude towards education?
6. Is there a significant relationship between the poverty reduction strategy and learners’ academic performance?
7. Is there a significant relationship between the human capital investment program and parents’ attitude towards education?
8. Is there a significant relationship between the human capital investment program and learners’ academic performance?

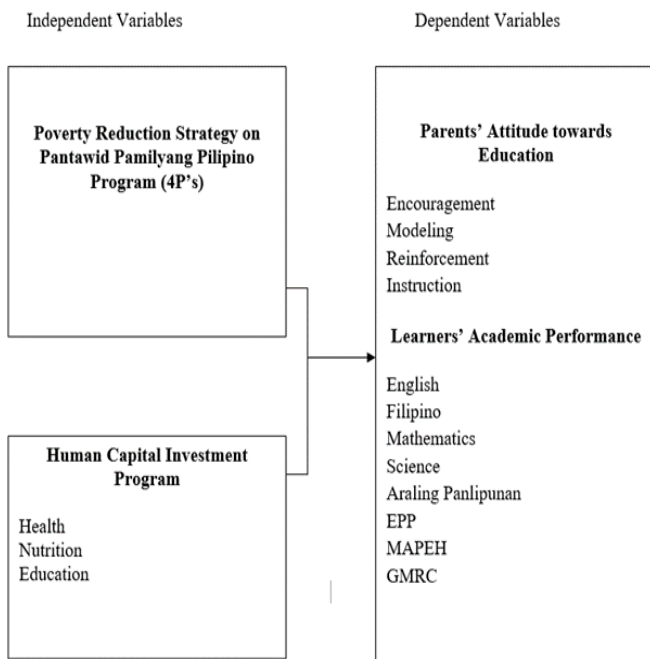


Figure 1. Conceptual Paradigm of the Study

Statement of the Problem

This study aimed to determine the 4Ps as poverty reduction strategy and human capital investment program and its impact to parents' attitude towards education and learners' academic performance.

Specifically, it sought to answer the following questions.

Hypothesis

1. There is no significant relationship between the poverty reduction strategy and parents’ attitude towards education.
2. There is no significant relationship between the poverty reduction strategy and learners’ academic performance.
3. There is a significant relationship between the human capital investment program and parents’ attitude towards education.
4. There is a significant relationship between the human capital investment program and learners’ academic performance.

Significance of the Study

The significant findings relative to poverty reduction strategy and human capital investment program and its impact to parents' attitude towards education and learners' academic performance. It ensures that every learner will be motivated to go to school in the way that their financial needs is augmented by financial services and parents attitude. Thus, this study is significant to learners, teachers, parents, researcher and future researchers.

Learners. The primary focus of conducting this study is significant to the learners as the main clientele of education. The result simply determine of the poverty reduction strategies like 4Ps change the landscape of educational system particularly in helping the financial needs of learners in school.

Seemingly, this endeavor is also find significant to the **parents**. Mostly, the poverty reduction strategies geared on parents' low income status. This study may help the parents understand the financial services given to them will be considerably valued and use for its purpose.

Teachers. The result of the study may help the teachers' improve their human capacity to deliver effective services to the learners. The importance of having a skilled teacher workforce has been reinforced in policies and must invest to improve the educational system. Well-trained and effective human investment for teachers and the provision of high quality professional development are ways to go forward.

Researcher. For the researcher, this study may increase our understanding of the subject and the field of study. This study would serve as the foundation for the researcher's use of particular tactics to introduce particular concepts to other educators. The results may provide the researcher the confidence to confront challenges in the classroom and help them influence others.

Future Researchers. The findings may help future researchers by providing guidance or a point of reference and encouraging them to repeat the study's variables in a different research setting.

Scope and Limitation: This study focused on the poverty reduction strategy through the Pantawid Pamilyang Pilipino Program (4Ps) and its impact on human capital investment programs, specifically in learners' health, nutrition, and education. The research explores how these factors influence

parents' attitudes towards education, focusing on encouragement, modelling, reinforcement, and instruction as key parental support behaviours.

Additionally, the study assesses the academic performance of learners across various subjects, including English, Filipino, Mathematics, Science, Araling Panlipunan, EPP, MAPEH, and GMRC. By examining these elements, the research provides insights into how poverty reduction initiatives and parental engagement contribute to students' overall educational development.

Operational Definition of Terms

The following concepts were given operational definitions in order to improve comprehension, establish clarity, and provide a coherent presentation of the study.

Academic Achievement refers to the performance of the 4Ps learners' beneficiaries in all subject areas during the first and second grading.

Education refers to the investment capital program that influence learners' attendance and performance in school.

Encouragement refers to an expressive support of the parents and motivation for their children's desire to learn and in school.

Health refers to the human capital investment program that helps promotes personal hygiene and sanitation among learners.

Human Capital Investment Program refers to the intangible effect of the poverty reduction program like 4Ps to the learners' health, education and nutrition.

Instruction refers to the attitude of parents by showing the sense of bond and connection to their children during involvement in schoolwork and activities.

Learners' academic performance refers to the learning outcome of learners based on the final rating in the eight (8) curricular subjects.

Learning and development program (L & D) refers to the relevant courses and activities in which serving teachers to participate to upgrade their human capital asset like professional knowledge, skills, and competence in the teaching the learners.

Modeling refers to the attitude of parents by showing their attributes to their children and maximizes the chances of their children to learn in

school despite the economic situation being experienced.

Nutrition refers to the human capital investment program that help learners and school in choosing the right and appropriate foods and dietary habits.

Pantawid Pamilyang Pilipino Program (4P's) refers to the poverty alleviation program aims a poverty reduction and social protection and development strategy of the national government that provides Conditional Cash Grants to poor households.

Parents' attitude towards education refers to the encouraging or discouraging evaluative reaction towards education matters consistently involve in the learning of their children.

Poverty reduction strategy refers to a set of measures, both economic and humanitarian, that are intended to permanently lift people out of poverty especially the economic status of the 4ps beneficiaries.

Reinforcement refers to the attitude of parents in letting their children engage in actions that enhance and sustain their characteristics that lead to positive learning outcomes.

II. METHODOLOGY

Research Design: The study employed a descriptive-correlational research design using a quantitative approach to systematically assess the relationships among the key variables. The descriptive method was used to outline and analyze the poverty reduction strategy (4Ps), human capital investment program (health, nutrition, and education), parental attitudes towards education, and learners' academic performance. Meanwhile, the correlational aspect examined the strength and direction of relationships among these variables, providing insights into how poverty reduction efforts and parental engagement influence students' educational outcomes.

Local of the Study: The study was conducted in the Tboli West District, specifically at Lukan Central School in Tboli Municipality. The majority of the learners in this district belong to the Tboli tribe, and a significant number of their parents are beneficiaries of the Pantawid Pamilyang Pilipino Program (4Ps), as indicated in the DSWD-CF Form 7. The selection of this locale was based on its high concentration of 4Ps beneficiaries, making it a

suitable setting to examine the impact of poverty reduction strategies on parental attitudes toward education and learners' academic performance. This study aligns with DepEd Memorandum 152, s. 2016, which outlines the Department of Education's (DepEd) role in implementing 4Ps-related initiatives to support the educational needs of underprivileged learners (DepEd, 2016).

The schools included in the study are geographically distant from each other due to the topographical landscape of the area. To ensure a focused investigation, the researcher selected fifteen schools with the highest number of 4Ps beneficiaries, as identified in the school profile. The municipal map provides a visual representation of the locations of these elementary schools. All learners enrolled in these selected schools are beneficiaries of the 4Ps program, making them suitable respondents for assessing the impact of poverty reduction strategies on parental attitudes toward education and learners' academic performance.

Respondents of the study: The study involved teachers and parents as respondents. The teacher-respondents were regular permanent teachers assigned to various schools within Tboli West District. To ensure relevant insights, the researcher included all regular permanent teachers who served as class advisers and had at least two years of teaching experience. The total teacher population considered was 357.

Additionally, parents were also selected as respondents based on specific criteria. The researcher included parents who were 4Ps beneficiaries and actively participated in school programs and activities, as verified through attendance records maintained by class advisers. The study considered a population of 357 teachers and 345 parents, from which a sample size of 186 teachers and 182 parents was determined.

Sampling Technique: The researcher applied Cochran's formula and stratified random sampling to determine the number of parent respondents. The study identified 186 teachers and 182 parents as respondents from a total population of 357 teachers and 345 parents.

Data Gathering Instruments: Part 1 of the questionnaire focused on 4Ps as a poverty reduction strategy, consisting of ten (10) statements that describe its effects in supporting learners' education. These statements were adapted from the study of Bagaipo & Napiere (2024) and were slightly modified to align with the specific needs of this study. Each item in the questionnaire was assessed using a 5-point Likert scale, allowing respondents to express their level of agreement or perception regarding the impact of 4Ps on education.

Part 2 of the questionnaire aimed to describe the human capital investment program. The researcher adapted the statements from the study of Taguam (2024) to ensure relevance and reliability. Each variable within this section consisted of six (6) statements, assessing different aspects of human capital investment in terms of education, health, and nutrition. Also, Part 3 answered the data on the parents' attitude towards education. The data gathering tool was taken from the study of Cancino (2020). Every variable is consists of six (6) statements that was answered using a 5-point Likert scale.

Part 4 of the questionnaire aimed to gather data on the academic performance of learners. The researcher provided a checklist form that recorded the final rating of each learner in eight (8) subject areas, ensuring a comprehensive assessment of their overall academic achievement.

Validity and Reliability Test

The data-gathering tool underwent validity and reliability tests. Initially, the survey tools was reviewed by the Advisory Committee members of the SKSU graduate school. The structure, grammar, and manuscript organization will be reviewed and improved. Once enhanced, the contents was subjected to the validation of six (6) research enthusiasts from the DepEd and recommended internal validators from SKSU.

The content validation aims to evaluate the item questions related to a given construct of a problem by retaining the important while eliminating the unessential items in a given domain. The content validation ratio (CVR) can be calculated using Lawshe's Method (Aithal et al., 2020).

Accordingly, the content validation ratio is a linear transformation of a proportional level of agreement on how many experts within a panel rate an item

essential calculated in the following way: CVR is the content validity ratio that is equal to the *ne* - the number of expert panel members indicating "essential," subtracted to N is the total number of expert panel members divided by 2 and after which, N is the total number of expert panel members divided by 2. The final evaluation to retain the item based on the CVR depends on the number of panels. The researcher used the validation tool (Youssof, 2019) with an acceptable CVI of 0.83. Likewise, a pilot test was administered to ensure the tool's reliability in selected integrated schools. In particular, Cronbach's Alpha was used to determine the internal consistency of the survey instruments.

Statistical Treatment: Mean and standard deviation were used to assess the levels of 4Ps as a poverty reduction strategy, human capital investment program, parents' attitude towards education, and learners' academic performance. These statistical measures provided insights into the central tendency and variability of the responses, allowing for a clearer understanding of the extent and impact of these factors.

To interpret the findings on the level of 4Ps as poverty reduction strategy, the scale, mean range with the corresponding description (numerical rating, verbal equivalent, and interpretation) shown below was used (Paquilet et al., 2023).

Range	Verbal Equivalent	Interpretation
4.20 – 5.00	Very High	The 4Ps as poverty reduction strategy always contributes and support to the economic, education and health status of parents and learners at all times
3.40 – 4.19	High	The 4Ps as poverty reduction strategy contributes and support to the economic, education and health status of parents and learners usually.
2.60 –	Slightly	The 4Ps as poverty reduction strategy

3.39	High	contributes and support to the economic, education and health status of parents and learners frequently.	participants' anonymity. No data analysis or reporting contained the identities of the parents or students. The researcher also made sure that participants in the study weren't subjected to any unnecessary risks or injuries.
1.80 – 2.59	Low	The 4Ps as poverty reduction strategy contributes and support to the economic, education and health status of parents and learners sometimes.	The study was intended to be culturally sensitive and inclusive, taking into account the different backgrounds of the learners in Tboli West District. The researcher ensured that the educational materials used in the study were acceptable for the students' ages, developmental levels, and cultural setting.
1.00 – 1.79	Very Low	The 4Ps as poverty reduction strategy contributes and support to the economic, education and health status of parents and learners not at all.	Finally, in order to ensure that the participants' requirements and concerns were met, the researcher asked them for comments at several points during the study. This input was utilized to improve the study's methods and resources and guarantee that it was carried out in an ethical and responsible manner.

Pearson's r was employed to examine the relationships between poverty reduction strategy and parents' attitude towards education, as well as poverty reduction strategy and learners' academic performance. This statistical tool was also used to determine the significant relationship between the human capital investment program and parents' attitude towards education, along with the human capital investment program and learners' academic performance (Obilor & Amadi, 2018). Pearson's correlation coefficient provided insights into the strength and direction of these relationships, helping to identify potential influences on educational outcomes.

Ethical Consideration

This study, done in Tboli West District, followed ethical norms to guarantee the well-being and rights of all participants. Before being permitted to participate, parents and learners gave their informed consent. The researcher discussed the goal of the study, methods, potential risks and advantages to the participants. They were also informed that their participation was voluntary and that they could withdraw from the study at any moment without penalty.

All information gathered was kept private and used exclusively for the study in order to protect the

III. RESULTS AND DISCUSSION

Pantawid Pamilyang Pilipino Program (4P's).

The 4Ps as a poverty reduction strategy received a high rating, with an overall mean of 4.04 (SD = 0.59). This indicates that respondents perceive the program as an effective means of alleviating the financial challenges they encounter in their daily lives.

The learners enrolled in the Learners Information System received the highest mean of 4.62 (SD = 0.57). Additionally, other indicators showed high ratings, such as learners consistently attending school for the majority of the current school year (\bar{x} = 4.18, SD = 0.71) and the household of 4Ps beneficiaries actively monitoring their children's school attendance and academic progress (\bar{x} = 4.05, SD = 0.92). These results suggest that the 4Ps program plays a significant role in ensuring learners' regular school attendance, as required by the program's guidelines.

However, the top three lowest mean scores were found in areas such as the learners' expressed increased desire to attend school with satisfactory progress in their studies (M = 3.90, SD = 0.68), support in addressing educational needs and opportunities (M = 3.88, SD = 0.74), and learners' ability to read and write as required for their grade level (M = 3.87, SD = 0.67). These findings suggest that while the 4Ps program has had a positive impact on the learners' academic status and

educational opportunities, challenges remain in areas like literacy and numeracy.

The results imply that while the 4Ps program has significantly reduced poverty among parents, its effect on academic progress, educational opportunities, and literacy remains minimal. The poverty reduction strategies have led to some improvements in attendance, engagement in early learning activities, and learners' motivation to

Table 2
Parents' Attitude towards Education

Variables	Mean	SD	Qualitative Description
Reinforcement	3.97	0.57	High
Encouragement	3.95	0.59	High
Instruction	3.91	0.51	High
Modelling	3.87	0.55	High
Overall Mean	3.93	0.49	High

attend school, but the overall impact on academic performance, especially in foundational skills like reading and numeracy, shows only slight improvement.

Human Capital Investment Program. The human capital investment program of the parents shows a high level of importance (M = 3.92, SD = 0.48), with education being the highest priority (M = 3.96, SD = 0.51), followed by health (M = 3.90, SD = 0.59) and nutrition, which is considered the lowest priority (M = 3.89, SD = 0.47). Parents view education as the key to overcoming poverty, believing it offers the best opportunity for their children to improve their lives.

The results imply that human capital investment, particularly in education, health, and nutrition, has a positive impact on students' well-being and educational outcomes. These factors are essential for a better life, and their interconnectedness highlights that the absence of one could lead to imbalanced outcomes, emphasizing the need for a holistic approach in addressing poverty and improving students' futures.

Table 1
Human Capital Investment Program

Indicators	Mean	SD	Qualitative Description
Education	3.96	0.51	High

Health	3.90	0.59	High
Nutrition	3.89	0.47	High
Overall Mean	3.92	0.48	High

Parents' Attitude towards Education. The findings of the study reveal that parents have a strong attitude towards their children's education, as indicated by the high mean scores for reinforcement, encouragement, and instruction. This suggests that parents are actively engaged in supporting their children's academic growth and are motivated to help them succeed in school. Among the various attitudes, reinforcement received the highest score, suggesting that parents emphasize showing appreciation and positive feedback for their children's efforts. This reflects a positive and supportive environment at home, where parents are actively involved in encouraging their children to learn and pursue academic challenges.

Encouragement also holds a significant role, as parents believe in their children's potential and encourage them to succeed in school. This encouragement likely boosts the children's self-confidence and motivation, reinforcing their belief that they can excel in their studies. Instruction, although slightly lower than reinforcement and encouragement, indicates that parents also take an active role in guiding their children's learning, helping them understand concepts and follow directions given by their teachers.

Interestingly, the modelling factor had the lowest mean score. This could imply that, while parents are supportive in terms of reinforcement, encouragement, and instruction, they may be less likely to actively demonstrate behaviours related to persistence in learning when faced with difficulties. This gap in modelling might reflect an area where further emphasis could be placed, as children often learn by observing their parents' actions.

Overall, these results implies that parents' attitudes are positively influencing their children's education, with the most apparent influence being through reinforcement and encouragement. However, there may be opportunities to strengthen parental modelling behaviors, demonstrating perseverance in the face of challenges as an example for their children to follow.

Learners’ Academic Performance.

The learners’ academic performance during the first and second quarters. As revealed, the overall mean is 83.00 (SD=4.32). This means that learners who are 4Ps beneficiaries have satisfactory rating in all subjects. When taken singly, MAPEH is observed to have the highest mean grade of 84.50 (SD=4.75). Meanwhile, GMRC obtained the mean grade of 83.60 (SD=4.94). Additionally, learners have satisfactory achievement in other subjects EPP (\bar{x} =83.50, SD=4.86), Filipino (\bar{x} =83.50, SD=4.99), Science (\bar{x} =83.30, SD=4.71), English (\bar{x} =82.50, SD=4.35) and AP (\bar{x} =81.60, SD=5.04). On the other hand, Mathematics obtained the lowest mean of 81.30 (SD=4.09). This means that learners perform better in MAPEH as evidence of the highest mean grade.

Moreover, during the second quarter, the learners’ academic performance manifest the overall mean of 83.50 (SD=4.30). This means that the learners have satisfactory rating in all subject areas for the second quarter. When taken singly, MAPEH subject obtained the mean grade of 84.70 (SD=4.62). Other subject areas such as Filipino has a mean grade of 84.10 (SD=4.95), English (\bar{x} =83.90, SD=4.34), EPP (\bar{x} =83.70, SD=4.95), EPP (\bar{x} =83.60, SD=4.83), AP (\bar{x} =83.60, SD=4.90) and Science (\bar{x} =83.10, SD=4.75). On the other hand, Mathematics obtained a lowest mean grade of 81.40 (SD=4.22). The result indicates that majority of the learners have lowest mean in Mathematics compared to other subject areas.

The result implies that most of the learners perform satisfactorily in all subjects, during the first quarter and second quarter but they perform better in MAPEH than Mathematics. The learners’ achievement met expectations in terms of quality outputs and written works. There is a minimal increase of their academic achievement in English, Filipino, Mathematics, Araling Panlipunan, EPP and MAPEH. However, there is a decrease of their achievement in Science and the sesame achievement in GRMC from first to second quarters.

Relationship between the Poverty Reduction Strategy and Parents’ Attitude towards Education. There is a significant relationship between poverty reduction strategies, such as the 4Ps program, and parents' attitudes toward education. Specifically, the correlation coefficient ($r = 0.554$) suggests a moderate to strong positive

association, with a p-value of 0.036 confirming statistical significance. This means that as families experience improvements in their economic conditions through programs like the 4Ps, there is a corresponding positive shift in their attitudes toward supporting their children's education.

Further analysis reveals that this relationship is particularly pronounced in the modeling aspect of parental attitude ($r = 0.575$, $p = 0.025$). This suggests that parents are more likely to actively demonstrate behaviors that support and value education when they feel financially stable. However, the study found no significant correlations between poverty reduction strategies and other parental attitudes, such as encouragement, reinforcement, and instruction, indicating that these

Table 3
Level of Learners' Academic Performance during the First and Second Quarters

Subjects	First Quarter		Second Quarter		Qualitative Description
	Mean	SD	Mean	SD	
MAPEH	84.50	4.75	84.70	4.62	Satisfactory
GMRC	83.60	4.94	83.60	4.83	Satisfactory
EPP	83.50	4.86	83.70	4.95	Satisfactory
FILIPINO	83.50	4.99	84.10	4.95	Satisfactory
SCIENCE	83.30	4.71	83.10	4.75	Satisfactory
ENGLISH	82.50	4.35	83.90	4.34	Satisfactory
AP	81.60	5.04	83.60	4.90	Satisfactory
MATH	81.30	4.09	81.40	4.22	Satisfactory
Overall Mean	83.00	4.32	83.50	4.30	Satisfactory

aspects of parental involvement may be influenced by factors beyond economic support.

Table 4
Correlation Analysis between Poverty Reduction Strategy and Parents' Attitude towards Education

Factors	Statistics	Poverty Reduction Strategy	Remarks
Encouragement	Pearson's r	0.504	Not Significant
	p-value	0.056	
Modelling	Pearson's r	0.575	Significant
	p-value	0.025	
Reinforcement	Pearson's r	0.472	Not Significant
	p-value	0.076	
Instruction	Pearson's r	0.511	Not Significant
	p-value	0.052	
Parent Attitude (Overall)	Pearson's r	0.544	Significant
	p-value	0.036	

Relationship between the Poverty Reduction Strategy and Learners’ Academic Performance. The poverty reduction strategy, specifically the Pantawid Pamilyang Pilipino Program (4Ps), does not have a significant direct impact on learners' academic performance across various subject areas.

The correlation coefficient for overall academic performance ($r = -0.777$, $p = 0.784$) suggests a strong negative relationship, but the high p-value indicates that this result is not statistically significant. Similarly, academic performance in the first quarter ($r = -0.206$, $p = 0.461$) and the second quarter ($r = 0.042$, $p = 0.882$) also show no significant relationships with the poverty reduction strategy. Therefore, there is strong evidence to accept the null hypothesis, concluding that the poverty reduction strategy is not a predictor of satisfactory performance among learners in all subject areas. In conclusion, while the 4Ps program may enhance access to education by reducing economic constraints, its direct impact on improving academic performance appears minimal. This underscores the need for a comprehensive approach that combines financial support with targeted educational strategies to foster better learning outcomes.

Table 5
Correlation Analysis between Poverty Reduction Strategy and Learners' Academic Performance

Variables	Statistics	Poverty Reduction Strategy
Quarter 1	Pearson's r	-0.206
	p-value	0.461
Quarter 2	Pearson's r	0.042
	p-value	0.882
Academic Performance (Overall)	Pearson's r	-0.077
	p-value	0.784

Relationship between the Human Capital Investment Program and Parents' Attitude towards Education. The findings reveal that parents' overall attitude towards education has a significant relationship with the education factor of human capital investment ($p=0.590$, $r=0.021$). In particular, aspects of parents' attitudes such as encouragement ($r=0.584$, $p=0.022$), modeling ($p=0.516$, $r=0.049$), reinforcement ($p=0.516$, $r=0.049$), and instruction ($p=0.618$, $r=0.014$) also show significant relationships with the education factor. However, when examining the broader human capital investment, parents' attitudes towards

education do not appear to have a significant impact on the health and nutrition factors (p -values >0.05). This indicates that while parents' attitudes contribute to the development of their children's education, they do not significantly affect other aspects such as health and nutrition. Overall, the results suggest that the education factor plays a key role in shaping parents' attitudes towards their children's education, with their encouragement, modeling, reinforcement, and instruction being central to supporting and investing in their educational development.

Table 6
Correlation Analysis between Human Capital Investment and Parents' Attitude towards Education

Factors	Statistics	Health	Nutrition	Education	Human Capital Investment (Overall)
Encouragement	Pearson's r	0.438	0.33	0.584	0.474
	p-value	0.102	0.23	0.022*	0.074
Modelling	Pearson's r	0.418	0.297	0.516	0.429
	p-value	0.121	0.283	0.049*	0.110
Reinforcement	Pearson's r	0.408	0.297	0.516	0.427
	p-value	0.131	0.283	0.049*	0.113
Instruction	Pearson's r	0.504	0.392	0.618	0.529
	p-value	0.055	0.149	0.014*	0.043*
Parent Attitude (Overall)	Pearson's r	0.467	0.347	0.590	0.491
	p-value	0.080	0.205	0.021*	0.063

Relationship between the Human Capital Investment Program and Learners' Academic Performance. The academic performance of the learners possess no significant relationship in all factors of human capital investment program ($p=0.149$, $r=0.597$). When taken individually, the academic performance is not significantly related to health factor ($p=0.133$, $r=0.638$), nutrition ($p=0.236$, $r=0.397$) and education ($p=0.149$, $r=0.597$). Thus there is a strong evidence to reject the null hypothesis.

The result implies that the performance of the learners during the first and second quarters does not depend on the health, nutrition and education factors of the human capital investment program. When parents invest in health, nutrition and education of their children is not a guarantee that the academic performance improve. The academic performance is possibly affected by learners' behaviour and discipline or self-motivation, teachers' instructional practices and quality teaching and learning.

Table 7
Correlation Analysis between Human Capital Investment and Learners' Academic Performance

Variables	Statistics	Health	Nutrition	Education	Human Capital Investment (Overall)
Quarter 1	Pearson's r	-0.036	0.047	-0.105	-0.034
	p-value	0.899	0.867	0.710	0.903
Quarter 2	Pearson's r	0.272	0.386	0.228	0.300
	p-value	0.327	0.156	0.414	0.278
Academic Performance (Overall)	Pearson's r	0.133	0.236	0.075	0.149
	p-value	0.638	0.397	0.791	0.597

IV. CONCLUSIONS

The 4Ps program and poverty reduction strategies positively impact learner enrolment, attendance, and academic motivation, as evidenced by high mean ratings across these indicators. However, despite receiving substantial support, learners' literacy skills require further enhancement to ensure they meet the expected grade-level competencies.

Parents prioritize education and health as key areas for human capital investment, with education receiving the highest emphasis. However, nutrition is slightly less prioritized, suggesting an opportunity to raise awareness about its importance in fostering overall child development.

The parents exhibit a strong positive attitude towards education, with reinforcement and encouragement being their most prominent forms of support. However, there is a need for greater emphasis on instructional guidance to further enhance their involvement in their children's learning.

The parents exhibit a strong positive attitude towards education, with reinforcement and encouragement being their most prominent forms of support. However, there is a need for greater emphasis on instructional guidance to further enhance their involvement in their children's learning.

The learners consistently demonstrate satisfactory academic performance across most subjects, with MAPEH being the highest performing subject and Mathematics showing the lowest achievement. Although overall grades are positive, targeted support in Mathematics may help improve learners' performance in this area.

The poverty reduction strategy has a significant positive impact on parents' attitude towards education, particularly in terms of modeling behavior. However, the strategy does not appear to have a significant influence on encouragement, reinforcement, or instructional support provided by parents.

The poverty reduction strategies may positively affect other aspects of learners' development, but do not directly impact academic performance in the subjects measured. The additional interventions focused on academic support and learning strategies may be needed alongside poverty reduction efforts to enhance student achievement.

The specific parental behaviors, such as encouragement, reinforcement, modeling, and instruction, play a more significant role in influencing human capital investment in education than general attitudes toward education. The interventions aiming to improve parental engagement in specific areas of support may have a greater impact on human capital development than simply promoting positive attitudes toward education.

The human capital investment programs focusing on health, nutrition, and education, may not have an immediate or direct impact on academic performance. Other factors, such as teaching quality, learning resources, and individual student characteristics, may play a more significant role in influencing students' academic success.

Parents consistently address their children's educational needs, such as providing school supplies and supporting participation in co-curricular activities, while also working to enhance their children's reading and writing skills.

The local government, in collaboration with stakeholders, could invest in improving children's nutrition by offering free subsidized meals to families. Parents' attitude towards education, particularly in the area of modeling behavior, could be improved by encouraging them to interact more with others and engage in social settings.

Learners who are beneficiaries of the 4Ps program could be motivated to raise their academic performance from satisfactory to very satisfactory grades, with a particular focus on improving their skills in Mathematics. The parents explore additional sources of income to improve their economic status, which would, in turn, strengthen

their positive attitudes towards reinforcement, encouragement, and instruction. The poverty reduction strategy should not be limited to the 4Ps program alone. Parents may also engage in livelihood programs to better support their children, thereby enhancing their academic performance. They prioritize their children's health and nutrition by attending to their health needs and promoting good personal hygiene and sanitation. The local government and DSWD should also assist parents in meeting their children's health and nutrition needs. Parents' involvement in the human capital investment program should include support for their children's academic performance, linking this initiative to the goal of improving learners' grades across all subjects.

Recommendations

Upon a thorough study of the findings, the following actions are recommended:

1. The poverty reduction strategy has minimal result on the educational and academic needs of learners; parents may always address educational needs and opportunities like provision of school supplies and co-curricular participation of their children as well as improve their children's reading and writing skills.
2. It is suggested that the local government in partnership with stakeholders may invest in the nutrition of the children by means of provision of free subsidized food to families.
3. The parents' attitude towards education on modelling may be improved particularly on mingling with other people.
4. The learners who are 4Ps beneficiaries may encourage to improve their academic performance from satisfactory to at least very satisfactory grades and may give emphasis to improve the learning in Mathematics.
5. It is proposed that parents may look into other sources to alleviate their economic status in order to strengthen their positive attitude on reinforcement, encouragement and instruction.
6. The poverty reduction strategy may not focus on the 4Ps program alone. The parents may engaged in livelihood program to support their children in order to improve their academic performance.
7. It is recommended that parents may prioritize their human investment on health and nutrition of their children by attending to their health needs and promoting personal hygiene and sanitation. The LGU and DSWD may support also the parents' needs on health and nutrition of their children.
8. The human capital investment program of parents may include their support to the academic performance of their children to link the initiative towards the improvement of the learners' grades in all subject areas.
9. The study was limited to the poverty reduction strategy and human capital investment program and its impact to parents' attitude towards education and learners' academic performance. This study suggests that other researcher will study on the parents' livelihood program, work status against the behaviour of the 4Ps recipients.

ACKNOWLEDGMENT

We would like to thank Causal Productions for permits to use and revise the template provided by Causal Productions. Original version of this template was provided by courtesy of Causal Productions (www.causalproductions.com).

REFERENCES

- Aimee, A. (2022). Human Capital Public Investment and Economic Growth in the Philippines. *Tamansiswa Management Journal International*, 4(1), 73-80. <https://jurnal.stiekn.ac.id/index.php/>
- Almendarez, E. (2024). The role of education in human capital development. *Journal of Educational Development*, 34(2), 45-57. <https://global.uwi.edu/>
- Almira, A., Martinez, J., & Soria, A. (2024). Parental involvement in education: A key factor in student success. *Education and Society*, 15(3), 101-115. <https://files.eric.ed.gov/fulltext/EJ1305014.pdf>
- Bagaipo, E. M., & Napiere, M. (2024). Participants compliance to Pantawid Pamilyang Pilipino Program: Implications on their living conditions. *Asian Journal of Education and Social Studies*. <https://journalajess.com/index>.
- Bala M. (2019). Parents attitude towards schooling education and their children. *International*

- Journals of Basic and Advanced Research*, 3(2), 8-23. <https://www.academia.edu/>
- Barro, R., & Lee, J.W. (2019). A new data set of educational attainment in the world, 1950-2010. *National Bureau of Economic Research Working Paper No. 15902, Massachusetts*.
- Blair, S. L. (2019). Parental involvement and children's educational performance: A comparison of Filipino and U.S. parents. *Journal of Comparative Family Studies*, 45(3), 351-36. <http://www.jstor.org/s>
- Bartolome, M. T., Mamat, N., & Masnan, A. H. (2019). Parental involvement in the Philippines: A review of literatures. *Southeast Asia Early Childhood Journal*, 6, 41-50. <https://doi.org/>
- Bronfenbrenner, U. (1994). Ecological models of human development. *International encyclopaedia of education*, 3(2), 37-43. <https://www.ncj.nl/wp->
- Cancino, J. V. (2023). The influence of parental involvement on student achievement. *International Journal of Research Publications (IJRP.ORG)*, 101(1), 502-582. <http://www.ijrp.org/>
- Cohen, D., & Soto, M. (2019). Growth and human capital: Good data, good results. *Journal of Economic Growth*, 1(3), 113-207. <https://link.springer.com/>
- Cuartero-Enteria, M., & Tagyam, A. (2020). Parental attitudes and student academic performance in the Philippines: A correlational study. *Philippine Journal of Educational Psychology*, 12(2), 45-60. <https://www.researchgate.net/>
- Lima, G. C. (2019). *An assessment of Pantawid Pamilyang Pilipino Program: Its impact on the academic performance of the beneficiaries in the West District of Alamada, Cotabato*. [Unpublished master's thesis, Notre Dame of Midsayap College. <https://library.ched.gov.ph/>
- Nihat Şad, S., Gürbüztürk, O. (2019). Primary school students' parents' level of involvement into their children's education. *Educational Sciences: Theory & Practice*, 13(2) *Educational Consultancy and Research Center*. www.edam.com.tr/estp
- Obilor, E. I., & Amadi, E. C. (2019). Test for significance of Pearson's correlation coefficient. *International Journal of Innovative Mathematics, Statistics & Energy Policies*, 6(1), 11-23. <https://www.researchgate.net/>
- Ocampo, J. F., Reyes, M. T., & Garcia, R. S. (2021). Challenges faced by poor learners in the Philippines: A look at the insufficient capacity development systems for parents. *Journal of Education and Social Development*, 45(2), 112-125. <https://cswcd.upd.edu.ph/>
- Olivar, M.J., & Naparan, G.B. (2023). Parental involvement and academic performance of students in online class learning modality. *International Journal of Social Sciences and Educational Studies*, 10(2), 16-31. <https://ijsses.tiu.edu.iq/wp-content/>
- Sayanna, L., Aben, R., & Flores, A. (2021). Parental engagement in education: Barriers and opportunities in improving academic performance. *Journal of Educational Research*, 15(1), 19-32. <https://www.researchgate.net/>
- Sebastian, J., Moon, J.-M., and Cunningham, M. (2019). The Relationship of school-based parental involvement with student achievement: a comparison of principal and parent survey reports from PISA 2012. *Educ. Stud.* 43, 123–146. <https://doi.org.>
- Sukati, V. N. (2024). Access to basic education: A literature review of challenges facing children living with visual impairment in Sub-Saharan Africa. *British Journal of Visual Impairment*, 02646196241235284.
- Taguiam, R. L. (2024). The Pantawid Pamilyang Pilipino Program: Its Impact on School Performance and Quality of Life. *Studies in Technology and Education*, 3(2), 92 -103. <https://www.azalpub.com/index.php/ste>
- Tarraga, V., García, B., and Reyes, J. (2019). Home-based family involvement and academic achievement: A case study in primary education. *Educ. Stud.* 44, 361–375. <https://doi.org.>
- Woodhall, M. (1997). *Human capital: Educational aspects*. In J. Eatwell, M. Milgate, & P. Newman (Eds.), *The New Palgrave*

Dictionary of Economics (pp. 681-690).
Palgrave Macmillan.