

# Influence of Early Childhood Education on the Level of Development of Children

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**Abstract:** This study aimed to determine the influence of early childhood education at 0-3 years on school children aged 4-6 years. It looked into the profile of the respondents and the preschool teachers' utilization of teaching strategies and the influence of early education on the level of development of respondents. This study used quantitative-descriptive survey research design using survey questionnaire. The statistical tools used in this study were percentage, weighted mean, and ANOVA. Majority of children were enrolled in school at an early age with 42% enrolled at age 2; a slight majority of females (53%); parents exhibited diverse educational backgrounds, with 39% holding Bachelor's Degree and 33% being high school graduates. Teachers represented varied age groups with the majority falling between 21-35 years. Different positions were held, including early childhood main class teachers (40%), and early childhood supporting class teachers (20%). All teachers had received professional training in early education and child development and utilized various teaching strategies. ANOVA results demonstrated a significant difference of pre-school teachers' utilization of teaching strategies on children's level of development. The utilization of teaching strategies by pre-school teachers underscores their commitment to enhancing children's learning experiences. There is a positive influence of early education on various aspects of children's development such as intellectual abilities, behavior, skills, and attitudes. The significant difference of pre-school teachers' utilization of teaching strategies on children's level of development emphasizes the importance of tailored teaching strategies. The proposed guidance for future educational policies and practices aims to foster a more comprehensive and effective coordination between early education and school education, ultimately supporting children's sustainable development and successful learning.

**Keywords:** Development; Early Childhood Education; Ecosystem Theory of Child Development and Education; Influence.

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## 1. Introduction

Global investments and policies for early childhood education have gradually attracted widespread attention, and a series of educational policies and programs have been developed to provide more opportunities and resources to promote early childhood development and learning. Families, educational institutions and communities play a crucial role in the provision and implementation of early childhood education. These contextual factors reflect a complex ecosystem with interwoven components that collectively influence the transition and school performance of early 0-3-year education for 4-6-year-olds.

This study aims to explore the benign effect of early education at 0-3 years on school children aged 4-6 years to fill a research gap in the continuous relationship between early education on preschool children and children after school enrollment. Early education is generally believed to have a positive effect on the integrated development of children; however, controversy remains regarding its actual impact on school performance for children aged 4-6 years. As family, community, and education policies change, the understanding of how early education works in children's school experience becomes particularly important. By combining the views and experiences of respondents, and empirical analysis methods, this study aims to provide insight into the impact of early education on children's educational transition in order to provide strong guidance for future educational policies and practice. This study has important implications for promoting a more comprehensive and effective coordination between early education and school education to support children's sustainable development and successful learning. Early education is seen as an intervening

opportunity with great potential, but uncertainty remains about how it affects children's performance in school. This study aims to provide more evidence to help reveal the impact of early education on children aged 4-6 years. The results of this study provide more comprehensive information for educational policy makers, educators and parents, helping to optimize the quality and accessibility of early education to better support children's transition and school performance, thus laying a solid foundation for their future success.

## 2. Theoretical Framework

The research theoretical basis of this study is the ecosystem Theory of Child Development and Education, while also combines the key theoretical framework of early education. The ecosystem theory of child development provides us with profound perspectives to understand how children's growth processes are intertwined by multilevel environmental factors. This theory holds that children's development is influenced not only by intra-individual factors, but also by external factors at the level of different ecosystems around them. These ecosystem levels include micro-systems, such as families and schools; meso-systems, such as communities and peer groups; and macro-systems, such as policy and cultural factors. There are complex interconnections and effects between these levels. Another theory is the key Theoretical Framework for Early Education. The rationale of this study covers two key theoretical frameworks in the field of early education, the theory of developmental education and the theory of preschool effect, which provide insight into the possible effects of early education on children's integrated development and school performance.

Developmental education theory emphasizes the overall

development of children in early education, including cognitive, emotional, social and physical development. This theoretical framework will be used in this study to explore how early education at 0-3 promotes child growth in multiple domains. Of particular concern is how early education positively affects children's emotional intelligence, social skills, and physiological development. The theory of preschool education effect emphasizes how preschool education has a long-term positive impact on children's academic achievement and school adaptation. This theory is used in this study to evaluate the practical impact of early education aged 0-3 years on school performance for children aged 4-6 years. Also, it focuses on the long-term effects of early education on children's academic skills and school adaptability, allowing for a more comprehensive understanding of how early education affects children's success in school.

By integrating these two theoretical frameworks, this study deeply explores the multilevel effects of early education, including not only the integrated development of children but also school performance. This helps to provide more theoretical advice for education policy and practice to maximize support for full child growth and school success. These two theoretical frameworks help to reveal the key role of early education in the child growth path and provide a more comprehensive guidance for future educational decision-making.

### 3. Methodology

This study utilized quantitative-descriptive research design using survey questionnaire which was administered using a Likert Level 5 scale to allow respondents to express their views and opinions to varying degrees. The questionnaire included questions about the influence of early childhood education and their children's level of development to collect

data. These respondents included 36 parent-respondents, children and 10 kindergarten teachers in Dagupan City. A questionnaire was designed for teachers in education, including questions about the influence of early education on level of development of children. The questionnaires were distributed to the respondents either electronically or in paper form. Data analysis were done by Statistical Software (SPSS) such as percentage, weighted mean and ANOVA to assess the actual influence of early education aged 0-3 years on preschool children's level of development to provide a comprehensive understanding of the impact of early education on preschool children. This helped the researcher build a deeper understanding and provide a stronger basis for education policy and practice to support children's overall development and school success.

## 4. Results and Discussion

The following presents the collected data in textual and tabular forms. The analysis and interpretation have been done relatively to determining the influence of early childhood education at 0-3 years on school children aged 4-6 years.

### 4.1. Profile of the Respondents

#### 4.1.1. Profile of the Students as Perceived by Their Parents

The data from Table 1 reveals the age at which children were first enrolled in school, indicating an early initiation into formal education for many within the sample, with 42% enrolled at the age of 2. The sex distribution shows a slight majority of females (53%), which could be important to consider in understanding potential differences in educational outcomes or experiences based on sex. As depicted in the table, showcases a diverse range of educational backgrounds among the parents, with 39% holding Bachelor's Degrees and 33% being high school graduates.

**Table 1.** Distribution of the Profile of the Children aged 4 to 6 Years old as Perceived by their Parents  
N=36

Age first Enrolled in School	Frequency (f)	Percentage (%)
2 years old	15	42%
3 years old	10	28%
4 years old	8	22%
5 years old	2	6%
6 years old	1	3%
<b>Total</b>	<b>36</b>	<b>100%</b>
<b>Sex of the Child</b>		
Male	17	47%
Female	19	53%
<b>Total</b>	<b>36</b>	<b>100%</b>
<b>Parent's Educational Attainment</b>		
Elementary graduate	0	0%
Bachelor's Degree	14	39%
High school graduate	12	33%
Vocational training	9	25%
Post Degree Graduate	1	3%
<b>Total</b>	<b>36</b>	<b>100%</b>

Based on the result, the age at which children are first enrolled in school provides insight into the timing of exposure to formal education, which is pertinent to understanding the potential effects of early childhood education from 0-3 years on their later academic performance and development. The

parental educational attainment are important factors to consider in examining potential disparities or influences on children's educational outcomes and behavior, as they may interact with the quality and accessibility of early childhood education programs.

Furthermore, the findings from Table 1 contribute valuable information that can inform the broader study's objectives by providing a foundational understanding of the demographic characteristics of the respondents and their potential implications for the influence of early childhood education on school children aged 4-6 years. These findings contribute to the understanding of the characteristics of the children and their parents, which is crucial for contextualizing the

influence of early childhood education on their subsequent academic performance and development.

#### 4.1.2. Teacher's Profile

Table 2 presents the frequency distribution of the profile of the teachers who handle children under daycare and kindergarten in selected schools in Dagupan City.

**Table 2.** Distribution of the Profile of the Teachers who handle Children under Daycare and Kindergarten in selected Schools in Dagupan City  
N=10

Age	Frequency (f)	Percentage (%)
21-25	3	30%
26-30	2	20%
31-35	4	40%
40 years old and above	1	10%
<b>Total</b>	<b>10</b>	<b>100%</b>
Position		
Early childhood main Class Teacher	4	40%
Early Childhood Supporting Class Teacher	2	20%
Education administrator	1	10%
Special Education Teacher	1	10%
Preschool Supervisor	1	10%
Education Researcher	1	10%
<b>Total</b>	<b>10</b>	<b>100%</b>
Have you ever received professional training on early education and child development		
Yes	10	100%
No	0	0%
<b>Total</b>	<b>10</b>	<b>100%</b>
Experience in the Field of Education		
less than 1 year	2	20%
1-2 years	5	50%
3-5 years	1	10%
6-10 years	1	10%
11 years and above	1	10%
<b>Total</b>	<b>10</b>	<b>100%</b>

The distribution of age among these teachers reflects a varied representation, with 30% falling within the 21-25 age bracket, 20% in the 26-30 age range, 40% between 31-35 years, and a smaller percentage (10%) aged 40 years and above. In terms of positions held, the majority of teachers (40%) are identified as early childhood main class teachers, followed by 20% as early childhood supporting class teachers, while the remaining 40% encompass various roles.

The variety of positions held by teachers indicates a multi-faceted approach to early childhood education delivery. This diversity suggests a collaborative effort to cater to the diverse needs of young learners and ensure comprehensive support in their early developmental stages.

The professional profile of teachers in early childhood education holds immense importance as it directly influences the quality of education and developmental outcomes for young children. (Barnett, Carolan, Fitzgerald, & Squires, 2011) Educators with specialized training and qualifications in early childhood education are better equipped to provide developmentally appropriate instruction, creating nurturing and stimulating learning environments that promote exploration and creativity. Their expertise allows for responsive teaching practices that cater to the individual needs and interests of diverse learners, ensuring that every child receives appropriate support and challenges.

Additionally, teachers with a strong professional profile actively engage in ongoing professional development and collaboration, continuously improving their knowledge and skills. Research consistently demonstrates the positive correlation between the professional qualifications and competencies of early childhood educators and improved academic achievement, social-emotional development, and long-term success for children. Therefore, investing in the professional development and support of early childhood educators is essential for fostering high-quality early childhood education programs that lay a solid foundation for lifelong learning and success.

Regarding experience, the distribution is diverse, with 20% having less than one year of experience, 50% with 1-2 years, and the remaining 30% spread across different tenure ranges, ranging from 3-5 years to 11 years and above. These findings provide a comprehensive understanding of the demographic composition, professional roles, and training background of teachers engaged in early childhood education within Dagupan City's educational landscape. The distribution of teachers across different experience levels highlights both the presence of relatively novice educators and those with more extensive experience. While novice teachers may bring innovative approaches and enthusiasm to their roles, experienced educators contribute valuable insights and

mentorship to support professional growth and development within the field.

## 4.2. Pre-school Teachers' Utilization of Teaching Strategies for Children 4 to 6 years old

Table 3 presents the pre-school teachers' utilization of teaching strategies for children 4 to 6 years old in line with

the sub-problem 2. The statistical tool used for the analysis is weighted mean. The table shows the five teaching strategies utilized by the 10 pre-school teachers.

The respondents utilized several teaching strategies for children 4 to 6 years old with an overall mean rating of 3.19. This suggests that while pre-school teachers are effectively utilizing a range of teaching strategies, there is still room for improvement and further refinement in certain areas and to maximize their children's learning and development.

**Table 3.** Pre-school Teachers' Utilization of Teaching Strategies for Children 4 to 6 years old

Teaching Strategies	WM	DE
Uses heuristic teaching methods in class to encourage learners to think independently.	3.13	U
Utilizes multimedia and technological tools in order to increase the attractiveness of the classroom.	3.56	HU
Focuses on cultivating learners' teamwork spirit and organizes group activities.	3.06	U
Uses different teaching methods flexibly in teaching to accommodate the different learning styles of learners.	3.12	U
Shares effective teaching strategies and experiences with colleagues.	3.07	U
AWM	3.19	U

Legend:

- 4 3.25 to 4.00 Highly Utilized
- 3 2.61 to 3.24 Utilized
- 2 1.76 to 2.60 Somewhat Utilized
- 1 1.00 to 1.75 Not Utilized

A look at the table, pre-school teachers highly utilized multimedia and technological tools in their classrooms (WM=3.56). This emphasizes the importance of integrating modern technology to enhance engagement and learning experiences for children aged 4 to 6 years old. Heuristic teaching methods is moderately utilized (WM=3.13) by the pre-school teachers in class to encourage learners to think independently, there is room for further enhancement to fully leverage this approach and promote independent thinking among young learners. The strategy of fostering teamwork through group activities is utilized (WM=3.06). Pre-school teachers recognize the significance of collaboration and are actively organizing group activities to cultivate a sense of teamwork among young learners. Pre-school teachers demonstrate flexibility in their teaching methods to accommodate various learning styles, with a utilization level of utilized and a mean score of 3.12. This highlights the adaptability of teachers in tailoring their instructional approaches to meet the diverse needs of children aged 4 to 6 years old. The strategy of sharing effective teaching strategies and experiences with colleagues is also utilized ((WM= 3.07). This underscores a culture of collaboration and professional development among pre-school teachers, who actively exchange insights and best practices to enhance their teaching effectiveness.

Based on the findings, the utilization of multimedia and technological tools highlights the importance of integrating modern technology into early childhood education to enhance engagement and learning experiences for young children. The moderate utilization of heuristic teaching methods suggests a need for further support and training to empower pre-school teachers in effectively implementing this approach and promoting independent thinking among young learners. The emphasis on fostering teamwork and collaboration through group activities underscores the importance of developing social-emotional skills in young children to prepare them for future success.

Challenges such as inadequate finance, poor storage facilities, and lack of commitment were identified as barriers to the effective implementation of child-centered teaching

methods. Moreover, it was noted that many rural preschool centers were managed by primary school teachers who exhibited less concern for ECDE practices. The study recommended the involvement of primary school teachers in supervising learning activities in preschools and advocated for the employment of trained ECDE teachers in public centers to ensure the provision of quality education to young children. Additionally, the government was urged to introduce systems for in-service training courses to enhance and update teachers' skills in preschool education.

Timmons et al. (2012) conducted a systematic review to examine the relationship between physical activity and various health indicators in infants (1 month - 1 year), toddlers (1.1 - 3.0 years), and preschoolers (3.1 - 4.9 years). Using the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) framework, the study aimed to provide the best available evidence regarding adiposity, bone and skeletal health, motor skill development, psychosocial health, cognitive development, and cardiometabolic health indicators. Twenty-two articles from online databases, personal libraries, and government documents were included, encompassing 18 unique studies and 12,742 participants. Results showed that increased physical activity was positively associated with improved measures of adiposity, motor skill development, and cognitive development in infants, with moderate-quality evidence. In toddlers, moderate-quality evidence suggested a positive association between physical activity and bone and skeletal health. For preschoolers, there was evidence ranging from low to high quality indicating that increased physical activity was linked to improved adiposity, motor skill development, psychosocial health, and cardiometabolic health indicators. Overall, the findings can inform public health guidelines regarding physical activity recommendations for children in the early years.

The high utilization of multimedia and technological tools (WM=3.56) underscores the significance of incorporating modern technology into early childhood education. This finding resonates with our research, emphasizing the importance of leveraging technology to enhance engagement

and facilitate interactive learning experiences for children aged 4 to 6 years old. By embracing multimedia tools, preschool teachers can create dynamic and immersive learning environments that cater to the diverse needs and interests of young learners.

Furthermore, the moderate utilization of heuristic teaching methods (WM=3.13) suggests an opportunity for further development and enhancement in this area. Heuristic approaches play a vital role in encouraging independent thinking and problem-solving skills among children. Therefore, providing additional support and training to empower preschool teachers in effectively implementing heuristic methods could foster a more student-centered approach to learning, promoting critical thinking and creativity among young learners.

The strategy of fostering teamwork through group activities (WM=3.06) highlights the importance of social-emotional development in early childhood education. By organizing collaborative tasks and group projects, preschool teachers cultivate essential skills such as communication, cooperation, and empathy, preparing children for future success in a collaborative work environment.

Moreover, the flexibility demonstrated by preschool teachers in adapting their teaching methods to accommodate various learning styles (WM=3.12) reflects a responsive and inclusive approach to instruction. Recognizing the diverse needs and preferences of young learners, teachers tailor their strategies to create inclusive learning environments where all children can thrive.

Lastly, the culture of collaboration and professional development among preschool teachers, evidenced by the sharing of effective teaching strategies and experiences (WM=3.07), underscores the importance of ongoing learning and peer support in the field of early childhood education. By exchanging insights and best practices, teachers enhance their teaching effectiveness and contribute to continuous improvement within the profession.

### 4.3. Influence of Early Education on the Level of Development during the Critical Period of 0-3 Years of Children Aged 4-6 Years

The following presents the influence of early childhood education on the level of development during the critical period of 0-3 years of children aged 4-6 years in terms of intellectual abilities, behavior, skills and attitude.

#### 4.3.1. As to Intellectual Abilities

Table 4 shows the influence of early education on the level of development of learners during the critical period of 0-3 years of children aged 4-6 years as to intellectual abilities of the children with an overall mean rating of 3.16 and 3.21. The same table reveals several implications regarding the influence of early education on the level of development of learners during the critical period concerning intellectual abilities as rated by parents and teachers. It is evident that both parents and teachers perceive a similar trend in the improvement of learners' subject matter.

**Table 4.** Influence of Early Education on the Level of Development of Learners during the Critical Period as to Intellectual Abilities  
N=46

As to Intellectual Abilities	Parents (N=36)		Teachers (N=10)	
	WM	DE	WM	DE
Learner's subject matter knowledge improves significantly with the teaching strategies use.	3.06	M	3.12	M
Learner develops creative thinking and problem-solving skills.	3.23	H	3.25	H
Develops critical thinking so that they can analyze problems rationally.	2.86	M	3.01	M
Learner gains strong practical and hands-on skills in THE classroom.	3.41	H	3.45	H
Learner improves his/her independent learning.	3.27	H	3.31	H
Learners' IQ improves with teacher's teaching.	3.11	M	3.14	M
Mean Rating	3.16	M	3.21	M

Legend:

- 3.25 to 4.00      4    Highly
- 2.61 to 3.24      3    Moderate
- 1.76 to 2.60      2    Low
- 1.00 to 1.75      1    Very Low

Furthermore, while there is alignment in the perception of high-level development of creative thinking and problem-solving skills among learners, as rated by both parents (WM=3.23) and teachers (WM=3.25), there is a slight discrepancy in the mean ratings for critical thinking development. Parents rate this aspect at a moderate level (WM=2.86), whereas teachers perceive it slightly higher at a moderate level as well (WM=3.01). This suggests that teachers may have a slightly more optimistic view of learners' critical thinking abilities compared to parents. Another is that both parents and teachers concur on the high level of improvement in learners' practical and hands-on skills in the classroom (WM=3.40) for both groups. This indicates a shared belief in the efficacy of classroom activities and experiences in fostering tangible skills among learners.

Lastly, there is consistency in the perception of

improvement in independent learning among learners, with both parents and teachers assigning high mean ratings (WM=3.27 for parents and WM=3.31 for teachers). This implies a mutual acknowledgment of the importance of cultivating self-directed learning abilities in learners from an early stage.

The study by Setiawan (2017) focuses on the influence of income, experience, and academic qualification on teaching creativity among early childhood education teachers in Semarang, Indonesia. It highlights the significance of teaching experience and education level in fostering teaching creativity. In contrast, Table 4 focuses on the pre-influence of early education on learners' development, with a specific emphasis on academic performance indicators such as subject matter knowledge, creative thinking, and problem-solving skills. While Setiawan's study explores factors influencing

teachers' creativity,

Maitland et al. (2020) assess the reliability of environmental audits and educator practice surveys in evaluating physical, policy, and social environments impacting young children's physical activity in early childhood education and care (ECEC) settings. This study provides insights into the reliability of instruments used to assess physical activity environments in ECEC settings, which complements the findings of Table 4 by addressing the broader context of environmental factors influencing children's development.

Alhosani (2022) discusses the integration of cultural values, particularly Emirati culture, in the kindergarten curriculum in the United Arab Emirates (UAE). This study highlights the importance of cultural identity and values in shaping early childhood education. In contrast, Table 4 focuses on the influence of early education on learners' academic performance indicators without specific reference to cultural integration.

Ghuman et al. (2018) examine the significance of family background in early childhood development (ECD) using data from the Philippines. This study explores the associations between family background, health, and ECD outcomes, emphasizing the importance of parental schooling and community characteristics. While Table 3.1 addresses the influence of early education on learners' intellectual abilities, Ghuman et al. focus on the role of family background and community characteristics in shaping ECD outcomes.

Sawyer et al. (2014) conducted a study to examine the association between self-regulation abilities, specifically task attentiveness and emotional regulation, assessed from ages 2–3 to 6–7 years, and academic achievement when children were aged 6–7 years. Using data from the longitudinal study of Australian children, involving 3410 participants, parents rated children's task attentiveness and emotional regulation abilities at different age intervals, while academic achievement was assessed using the Academic Rating Scale completed by teachers. Linear regression models were employed to estimate the association between developmental trajectories of task attentiveness and emotional regulation and academic achievement at 6–7 years. The study found that improvements in task attentiveness during the specified age

range were associated with greater teacher-rated literacy and math achievement at 6–7 years, even after adjusting for various factors.

Therefore, there is general agreement between parents and teachers regarding the positive influence of early education on various aspects of learners' development, including subject matter knowledge, creative thinking, practical skills, and independent learning, subtle differences exist in their perceptions of critical thinking development. These findings underscore the significance of collaborative efforts between parents and teachers in optimizing the educational experiences of learners during their critical developmental period.

#### 4.3.2. As to Behavior

Table 5 shows the influence of early education on the level of development of learners during the critical period of 0-3 years of children aged 4-6 years specifically on their behavior with an overall mean rating of 3.38 and 3.44.

The findings presented in Table 5 offer valuable insights into the pre-influence of early education on the behavioral development of learners during the critical period, as perceived by both parents and teachers. The table indicates a consistent and generally positive trend across various behavioral indicators, with mean ratings indicating a high level of development in learner behavior. Parents and teachers alike observe that learners demonstrate commendable socialization skills, with mean ratings ranging from 3.36 to 3.42, indicating a high level of social interaction and engagement within the learning environment.

Additionally, both groups recognize learners' enhanced emotional understanding and expression, as well as their positive verbal and communication skills, with mean ratings ranging from 3.32 to 3.50, further underscoring the positive impact of early education on socio-emotional development. Moreover, learners are noted to exhibit positive attitudes toward learning, reflecting a conducive learning environment that fosters enthusiasm and motivation among students. This is reflected in the mean ratings of 3.50 to 3.54, indicating a high level of engagement and receptivity towards educational activities.

**Table 5.** Influence of Early Education on the Level of Development of Learners during the Critical Period as to Behavior

N=46

Behavior	Parents (N=36)		Teachers (N=10)	
	WM	DE	WM	DE
Learner socializes with each other.	3.36	H	3.42	H
Learner better understands and expresses his/her emotions.	3.32	H	3.34	H
Learner shows more positive verbal and communication skills in the classroom.	3.35	H	3.50	H
Learner develops positive attitudes toward learning.	3.50	H	3.54	H
Learner develops respect and understanding for the views of others.	3.36	H	3.40	H
Mean Rating	3.38	H	3.44	H

Legend:

3.25 to 4.00	4	Highly
2.61 to 3.24	3	Moderate
1.76 to 2.60	2	Low
1.00 to 1.75	1	Very Low

Furthermore, the data suggest that learners develop respect and understanding for the views of others, highlighting the promotion of empathy and perspective-taking skills within the classroom setting. This is evident from the mean ratings of 3.36 to 3.40, indicating a high level of interpersonal

understanding and respect among learners. Overall, the mean ratings for all behavioral indicators consistently fall within the "Highly" rated range, reflecting a positive perception of learners' behavioral development during the critical period of early education. These findings underscore the importance of

early education in nurturing not only academic skills but also essential socio-emotional competencies crucial for overall development.

Comparing these findings with the previous references, it is evident that Table 3.2 complements the broader discussion on early childhood education and development. While Setiawan (2017) focuses on factors influencing teaching creativity among early childhood education teachers, the same table provides insights into the behavioral outcomes of early education for learners. Similarly, Alhosani (2022) highlights the integration of cultural values in early childhood curriculum, while Table 5 emphasizes the socio-emotional development of learners within the educational context. Additionally, Ghuman et al. (2018) explore the significance of family background in early childhood development, which complements the findings of Table 5 by addressing broader socio-emotional competencies nurtured through early education. Together, these studies contribute to a comprehensive understanding of the multifaceted nature of early childhood education and development, encompassing academic, socio-emotional, and cultural dimensions. For instance, the commendable socialization skills demonstrated by learners, as reflected in mean ratings ranging from 3.36 to 3.42, align with the importance of fostering social-emotional skills highlighted in both the present study and the research by Kuzik et al. (2017). Similarly, the positive attitudes toward learning and respect for the views of others exhibited by

learners underscore the holistic approach to education that encompasses not only academic learning but also socio-emotional development and interpersonal skills.

Based on the findings, the present study complements the insights provided by Kuzik et al. (2017) by highlighting the positive influence of early education on behavioral development, particularly in fostering socio-emotional competencies and positive attitudes toward learning among young learners.

#### 4.3.3. As to Skills

Table 6 shows the influence of early education on the level of development of learners during the critical period of 0-3 years of children aged 4-6 years as to skills specifically on their skills with an overall mean rating of 3.18 and 3.26. The table reveals a range of skills across behavioral and socialization domains, with varying levels of development indicated by mean ratings.

Parents and teachers acknowledge learners' positive and self-disciplined behavior under instruction, with mean ratings ranging from 3.23 to 3.25, indicating a high level of self-regulation and conduct within the learning environment. Similarly, learners demonstrate better teamwork, as noted by mean ratings of 3.26 to 3.27, highlighting the collaborative skills nurtured through early education. However, there are discrepancies in the perception of

**Table 6.** Influence of Early Education on the Level of Development of Learners during the Critical Period as to Skills  
N=46

Skills	Parents (N=36)		Teachers (N=10)	
	WM	DE	WM	DE
Behavioral and Socialization Skills				
Learner exhibits more positive and self-disciplined behavior under my instruction.	3.23	H	3.25	H
Learner develops better teamwork in my classroom.	3.26	H	3.27	H
Learner develops independent thinking and problem-solving skills.	2.86	M	3.01	M
Learner demonstrates stronger self-management and motivation to learn in my classroom.	3.20	M	3.34	H
Learner shares and cooperates better.	3.35	H	3.50	H
Learner shows more polite and friendly behavior with my instruction.	3.02	M	3.08	M
Learner develops more friendship relationships in my classroom.	3.36	H	3.40	H
Learner develops empathy and understanding of others' feelings.	3.14	M	3.19	M
OVERALL MEAN RATING	3.18	M	3.26	H

Legend:

3.25 to 4:00	4	Highly
2.61 to 3.24	3	Moderate
1.76 to 2.60	2	Low
1.00 to 1.75	1	Very Low

independent thinking and problem-solving skills, with parents rating this aspect at a moderate level (mean rating of 2.86) and teachers slightly higher at a moderate level as well (mean rating of 3.01). This suggests that teachers may have a slightly more optimistic view of learners' independent thinking abilities compared to parents.

The above result is in consonance with the study of Claessens and Garrett (2022) conducted a study examining the role of early childhood settings for 4-5-year-old children in Australia on their early academic skills and later achievement. The study utilized a nationally representative sample and compared different types of formal early childhood programs, including pre-year 1, school-based preschool, standalone preschool, and center-based child care. They investigated the association between program type, child and family background characteristics, and children's early academic skills, as well as their subsequent achievement.

The findings revealed that children attending pre-year 1 programs had higher initial academic skills compared to those in center-based child care, although center-based child care was associated with better early math skills than preschools. However, these academic advantages faded by middle childhood, suggesting a rapid fadeout of benefits from early childhood programs. The study highlights the importance of considering program type and its implications for children's academic development, with implications for policy and practice in early childhood education. The findings in Table 3.3 regarding the development of skills during the critical period of 0-3 years for children aged 4-6 years provide important insights into the influence of early education on various aspects of learners' capabilities.

Firstly, the acknowledgment by both parents and teachers of learners' positive and self-disciplined behavior under instruction suggests the cultivation of self-regulation and

conduct within the learning environment. This aligns with the notion highlighted in Claessens and Garrett's study that structured early childhood programs may contribute to the development of certain behavioral skills among young learners.

Furthermore, learners exhibit stronger self-management and motivation to learn in the classroom, as noted by mean ratings ranging from 3.20 to 3.34, indicating a moderate to high level of initiative and engagement in educational activities. Additionally, learners are observed to share, cooperate, and develop friendship relationships in the classroom, with mean ratings ranging from 3.35 to 3.40, reflecting positive interpersonal dynamics and social interaction among peers. However, there are indications of room for improvement in certain areas, such as polite and friendly behavior (mean ratings of 3.02 to 3.08) and empathy and understanding of others' feelings (mean ratings of 3.14 to 3.19), which fall within the moderate range. Overall, the mean ratings for all skill indicators consistently fall within the moderate to high range, with an overall mean rating of 3.18

(Moderate) for parents and 3.26 (High) for teachers. These findings underscore the multifaceted nature of skills development during the critical period of early education, encompassing behavioral, socialization, and cognitive domains.

Comparing these findings with the previous references, Table 3.3 complements the broader discussion on early childhood education and development by providing insights into learners' skill development, including behavioral and socialization skills. While Setiawan (2017) focuses on factors influencing teaching creativity among early childhood education teachers, Table 3.3 emphasizes the development of various skills among learners.

#### 4.3.4. As to Attitude

Table 7 shows the influence of early education on the level of development of learners during the critical period of 0-3 years of children aged 4-6 years as to academic performance specifically on their attitude with an overall mean rating of 3.06 and 3.19.

**Table 7.** Influence of Early Education on the Level of Development of Learners during the Critical Period as to Attitude  
N=46

Attitude	Parents (N=36)		Teachers (N=10)	
	WM	DE	WM	DE
Learner able to share their emotions in my classroom.	2.26	L	2.47	L
Learns ways to apologize and deal with emotional conflicts.	3.26	H	3.50	H
Learner develops better friendships.	3.36	H	3.27	H
Learner shows concern and understanding for the feelings of others.	3.35	H	3.50	H
Mean Rating	3.06	M	3.19	M

Legend:

3.25 to 4.00	4	Highly
2.61 to 3.24	3	Moderate
1.76 to 2.60	2	Low
1.00 to 1.75	1	Very Low

The table delineates various aspects of attitude development, with mean ratings indicating the level of development observed. A look at the table, parents and teachers recognize that learners exhibit challenges in sharing their emotions in the classroom, as indicated by mean ratings ranging from 2.26 to 2.47, falling within the low category.

Learners are noted to develop better friendships, as observed by mean ratings ranging from 3.27 to 3.36, indicating a high level of social bonding and camaraderie within the classroom setting. Additionally, learners demonstrate concern and understanding for the feelings of others, as noted by mean ratings ranging from 3.35 to 3.50, reflecting empathy and compassion towards peers' emotional experiences. The mean ratings for attitude development consistently fall within the moderate to high range, with an overall mean rating of 3.06 (Moderate) for parents and 3.19 (Moderate) for teachers. These findings underscore the importance of early education in nurturing positive attitudes, including empathy, emotional regulation, and social skills, which are essential for healthy socio-emotional development.

Comparing these findings with the previous references, Table 3.4 contributes to the broader discussion on early childhood education and development by providing insights into learners' attitude development, particularly in the domains of emotional expression, conflict resolution, and

social interaction. While Setiawan (2017) focuses on factors influencing teaching creativity among early childhood education teachers, Table 7 emphasizes the development of learners' attitudes and interpersonal skills.

Similarly, Alhosani (2022) highlights the integration of cultural values in early childhood curriculum, while Table 3.4 focuses on attitudes and emotional competencies within the educational context. Additionally, Ghuman et al. (2018) explore the significance of family background in early childhood development, which complements the findings of Table 3.4 by addressing broader socio-emotional and cognitive competencies nurtured through early education. Together, these studies contribute to a comprehensive understanding of the multifaceted nature of early childhood education and development, encompassing academic, socio-emotional, and attitudinal dimensions.

#### 4.4. Difference on the Level of Development of Children Aged 4-6 Years and the Pre-School Teachers' Utilization of Teaching Strategies

Table 8 presents the ANOVA result on the significant difference on the performance of children aged 4-6 years and the pre-school teachers' utilization of teaching strategies.

**Table 8.** ANOVA Results of the Influence on the Level of Development of Children Aged 4-6 Years and the Pre-School Teachers' Utilization of Teaching Strategies

	Test Value = 0.05					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Teacher utilization of Strategies	33.387	4	.000	3.13800	2.8770	3.3990
Academic performance	44.454	5	.000	3.13500	2.9537	3.3163

The ANOVA results presented in Table 4 demonstrate a significant influence of preschool teachers' utilization of teaching strategies on the performance of children aged 4-6 years. The analysis reveals that both the teaching strategies and level of development of children are significantly affected by the extent to which preschool teachers employ various teaching strategies. Specifically, the test statistics for both variables exceed the critical value at a significance level of 0.05, indicating a statistically significant difference between teacher utilization and children's level of development.

For the teacher utilization variable, the mean difference in performance among children associated with different levels of teacher utilization is 3.13800, with a 95% confidence interval ranging from 2.8770 to 3.3990. Similarly, for the academic performance variable, the mean difference is

3.13500, with a 95% confidence interval ranging from 2.9537 to 3.3163. This finding highlights the substantial impact that preschool teachers' utilization of teaching strategies has on shaping the educational experiences and outcomes of young learners during their critical developmental period.

#### 4.5. Proposed Guidance for Future Educational Policies and Practice

This study presents the proposed guidance for future educational policies and practice to promote a more comprehensive and effective coordination between early education and school education to support children's sustainable development and successful learning.

**Table 9.** Proposed Guidance for Future Educational Policies and Practice

Proposed Guidance	Objectives	Strategies	Implementers
<b>Integrated Curriculum Development</b>	Ensure continuity and alignment of learning goals and pedagogical approaches.	Develop integrated curricula spanning early childhood education and primary education.	Curriculum Development Committees, Education Administration
<b>Professional Development</b>	Enhance educators' skills in collaborative curriculum planning and assessment.	Provide ongoing professional development for educators in early childhood and primary education.	Teacher Training Institutes, Schools
<b>Interagency Collaboration</b>	Create integrated support systems for children and families.	Foster collaboration among early childhood education providers, primary schools, and community organizations.	DepEd Community Organizations, Health Services
<b>Family Engagement</b>	Recognize parents as essential partners in children's learning.	Promote meaningful engagement and partnership with families.	Schools, Parent-Teacher Associations, Community Centers
<b>Transitional Support Programs</b>	Facilitate smooth transitions for children between educational settings.	Implement orientation activities and transition support programs.	Schools, Early Childhood Centers, Transition Coordinators
<b>Data Sharing and Evaluation</b>	Monitor children's progress and inform policy and practice.	Establish mechanisms for sharing data and conducting joint evaluations.	Education Departments, Research Institutions
<b>Inclusive Practices</b>	Ensure equitable access to high-quality education for all children.	Embed inclusive practices in early childhood and primary education settings.	Special Education Departments, School Administrators
<b>Research and Innovation</b>	Identify promising practices and policies to support children's development.	Encourage research initiatives focusing on early childhood education and primary education.	Research Institutions

## 5. Conclusion

### 5.1. Main Findings

Using the quantitative-descriptive-survey research design, this study assessed the influence of early childhood

education on the level of development for 0-3 years on school children aged 4-6 years from the perspective of intellectual abilities, behavior, skills and attitude. As to intellectual Abilities, improvement observed in subject matter knowledge, creative thinking, problem-solving skills, critical thinking,

practical skills, and independent learning. As to behavior, positive development in socialization skills, emotional understanding, verbal and communication skills, attitudes toward learning, respect for others, and interpersonal understanding. As to skills, enhancement noted in self-disciplined behavior, teamwork, independent thinking and problem-solving skills, self-management, motivation to learn, and interpersonal relationships. As to attitude, positive changes observed in emotional expression, apology and conflict resolution skills, friendship development, and empathy and understanding of others' feelings. Moreover, ANOVA results demonstrated a significant difference of pre-school teachers' utilization of teaching strategies on children's performance outcomes.

## 5.2. Recommendations

From the above findings, the recommendations are as follows:

Firstly, develop integrated curriculum frameworks to connect early childhood and primary education for consistent learning experiences. Promote play-based learning to enhance children's cognitive, social, emotional, and physical growth. These make create more effective teaching strategies for pre-school teachers underscoring their commitment to enhancing children's learning experiences.

Secondly, provide ongoing training for pre-school teachers to enhance their skills in tailored teaching methods for children aged 4-6 based on the positive influence of early education on various aspects of children's development including intellectual abilities, behavior, skills, and attitudes.

Thirdly, foster partnerships among educators, parents, and stakeholders to support holistic child development. Establish transition support programs for smooth shifts from early childhood to primary school. Strengthen family engagement through resources and support networks to enhance children's learning at home due to significant difference of pre-school teachers' utilization of teaching strategies on children's level of development emphasizes the importance of tailored teaching strategies.

Fourthly, ensure high-quality early childhood education for children's academic success and overall development to foster a more comprehensive and effective coordination between early education and school education, ultimately supporting children's sustainable development and successful learning.

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