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Public Secondary Schools' Early Childhood Education System and its Effectiveness for Learners in Punjab Province

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Abstract: *In contrast to underdeveloped nations, developed countries worldwide have achieved dominance through their focus on research and education. This study aimed to investigate initiatives in early childhood education by examining the perspectives of teachers and school principals. The data was gathered from 140 teachers and 140 principals in Kasur, utilizing a 5-point Likert scale. Statistical analysis was employed to evaluate the ECE system and its effectiveness. The research reveals that early childhood education initiatives are largely effective when accompanied by the necessary resources and facilities. Based on these findings, it is recommended that ECE classrooms be developed in a systematic manner, with a defined feedback mechanism in place. ECE teachers should actively promote cooperative learning among children and work to enhance students' enthusiasm for learning. Furthermore, a well-structured training system should be implemented for the capacity building of teachers.*

Key Words: Teacher Perceptions, Early Childhood Education Initiatives

Introduction

Early Childhood Development (ECD) is a transformative process that plays a pivotal role in fulfilling the fundamental desires and needs of children. During these critical early years, typically spanning from birth to age eight, children undergo rapid physical, cognitive, emotional, and social growth. ECD encompasses a wide range of experiences and interactions that shape a child's foundation for life. At its core, it acknowledges that children are not passive recipients of care but active participants in their own development (Chuahdry, 2021). This perspective

underscores the importance of providing a nurturing and stimulating environment that supports their growth in every facet.

In the first few years of life, children develop the foundational building blocks of their cognitive abilities. Early exposure to language, sensory stimulation, and interactive play sets the stage for language acquisition, problem-solving skills, and emotional regulation. Furthermore, ECD acknowledges the critical role of relationships in a child's development. Secure attachments with caregivers provide a sense of safety and trust, which forms the basis for healthy social interactions and emotional well-being

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(Weikart, 2000). These early experiences are not just about academic readiness but also about shaping resilient, empathetic, and adaptable individuals who can navigate the complexities of life. Thus, ECD is not merely a process of filling children's needs; it is about empowering them to flourish and reach their full potential, ensuring a strong and productive future for both the individual and society as a whole (Phiri, 2008).

Early Childhood Development is a multifaceted process that fulfils the fundamental desires of children by recognizing their agency in their own growth and development. It encompasses cognitive, emotional, social, and physical dimensions, highlighting the interconnectedness of these aspects (Tahira, Muhammad, & Masood, 2020). Through nurturing relationships, stimulating environments, and opportunities for exploration and learning, ECD lays the foundation for healthy, well-rounded individuals who can contribute positively to society. Investing in early childhood development is not just an investment in the present but a strategic move towards a brighter, more prosperous future for all.

Early childhood programs play a crucial role in mitigating economic and societal deprivation that can affect children's lives. These programs encompass a range of educational, healthcare, and social support services designed to ensure that children have a strong foundation for future success. By investing in early childhood programs, society can address the root causes of deprivation and break the cycle of poverty, ultimately leading to more equitable and prosperous communities (Darling-Churchill & Lippman, 2016).

Early childhood programs provide children with access to quality education and development opportunities from a young age (Arshad, Muhammad, & Qureshi, 2021). The influence of parent-teacher meetings on early childhood students' academic performance: Prospective teachers' perceptions. *Global Social Sciences Review*, 6(2), 180–190.. High-quality preschool and early learning experiences can significantly improve a child's cognitive and

social development. These programs not only prepare children academically but also help them develop crucial social and emotional skills, setting them on a path to success in school and life. By addressing educational disparities early on, these programs help level the playing field for children from disadvantaged backgrounds, reducing the risk of long-term economic deprivation (Anderson et al., 2003).

Moreover, early childhood programs often include comprehensive healthcare and nutritional support, ensuring that children receive the essential care they need for healthy physical and mental development (Yates, & Abrams, 2014). Regular check-ups, immunizations, and access to nutritious meals can have a profound impact on a child's overall well-being. This preventive approach not only reduces the burden on healthcare systems but also helps alleviate societal deprivation by reducing the likelihood of chronic health issues that can hinder a child's future opportunities.

These programs offer support to families, particularly those facing economic challenges. Parenting education, counselling, and access to community resources can empower parents to provide a nurturing and stable environment for their children. Strong family units are vital for a child's development, and early childhood programs recognize this by providing the necessary tools and assistance to help families thrive (Killen, 2014).

Early childhood education plays a pivotal role in shaping learners' cognitive and physical development. During the early years of life, typically spanning from birth to around eight years old, children's brains are highly receptive to learning and are rapidly developing. Quality early childhood education programs are designed to harness this critical period by providing a nurturing and stimulating environment that supports cognitive growth. These programs introduce children to foundational concepts such as language, math, and problem-solving skills through play-based activities and age-appropriate curriculum. By engaging in activities that encourage exploration, curiosity, and social interaction,

young learners not only acquire knowledge but also develop essential cognitive skills like critical thinking, creativity, and the ability to collaborate with others (Tran, Holton, Nguyen, & Fisher, [2019](#)).

Moreover, early childhood education is closely intertwined with physical development. Physical development encompasses the growth and maturation of a child's body, motor skills, and overall health. Well-designed early childhood programs emphasize the importance of physical activity, nutrition, and health to ensure that children develop both fine and gross motor skills, establish healthy habits, and build strong foundations for physical well-being. Activities such as outdoor play, sports, and creative movement exercise not only contribute to physical health but also support cognitive development by enhancing spatial awareness, coordination, and the ability to solve physical challenges. By addressing both cognitive and physical development, early childhood education sets the stage for lifelong learning and overall well-rounded development in children.

Preschool and early childhood education are essential components of a child's developmental journey, focusing on fostering growth and learning from birth to approximately age eight (Gordon & Browne, [2000](#)). This critical phase encompasses the early years of a child's life when their cognitive, social, emotional, and physical development is most rapid. Early childhood education programs are specifically designed to provide a supportive and enriching environment where children can explore, experiment, and acquire foundational skills that serve as the building blocks for their future education and well-being (Arshad & Zamir, [2018](#)).

During these formative years, children are like sponges, absorbing knowledge and experiences from their surroundings. Preschools and early childhood education programs leverage this innate curiosity and eagerness to learn by offering age-appropriate activities and curriculum. They emphasize play-based learning, which encourages children to discover and make sense of the

world around them through hands-on experiences (N. Ahmad, Anjum, & Rehman, [2013](#)). This approach not only enhances cognitive development by fostering language acquisition, numeracy skills, and problem-solving abilities but also cultivates social and emotional growth by teaching children how to interact, share, and manage their feelings effectively.

Furthermore, preschool and early childhood education programs emphasize the importance of a nurturing and safe environment. They promote healthy routines, hygiene, and nutrition, ensuring that children are physically and emotionally well-cared for. By addressing the holistic development of children in their early years, these programs lay a strong foundation for future academic success and emotional resilience. In essence, they provide a solid framework for children to flourish and become confident, capable individuals who are ready to face the challenges of their educational journey and beyond (Adnan, Dilshad, & Khan, [2016](#)).

The first few days of a child's experience at school are undeniably some of the most influential moments that can shape the trajectory of their entire life. These initial interactions with teachers, peers, and the educational environment can set the tone for their academic, social, and emotional development. When children enter school for the first time, they are not only gaining access to formal education but also entering a new world of experiences and relationships that will have a profound impact on their future (Mishra, [2005](#)).

In these early days, children are not just learning the basics of reading, writing, and arithmetic; they are also developing essential life skills and values. They learn how to interact with others, resolve conflicts, and express themselves. The sense of belonging and safety they feel in these formative moments greatly influences their self-esteem and self-confidence, which can affect their willingness to take on challenges and pursue learning throughout their lives. Positive early experiences can foster a love for learning,

curiosity, and a growth mindset that encourages children to embrace new opportunities and overcome obstacles in their educational journey. On the other hand, negative experiences or feelings of alienation during this critical period can have long-lasting consequences, potentially leading to disengagement from education and diminished life opportunities (M. Ahmad, 2011). Hence, the importance of creating a welcoming, inclusive, and nurturing environment for children in their first days at school cannot be overstated.

Early childhood education holds profound significance in Pakistan, where it can play a pivotal role in addressing various societal challenges. It provides a strong educational foundation, fostering essential cognitive, social, and emotional skills crucial for a child's development. In a country like Pakistan, where access to quality education remains a challenge, investing in early childhood education can bridge educational disparities,

particularly for marginalized communities. It not only prepares children for formal schooling but also empowers them with essential life skills. Furthermore, early childhood education can contribute to the social and economic development of Pakistan by creating a more skilled and knowledgeable workforce, reducing poverty, and promoting social cohesion. In essence, it is a catalyst for a brighter and more equitable future for Pakistan.

To conduct this study, we developed specific instruments to assess the perceptions of two groups of respondents: teachers and head teachers, regarding the ECE program in public schools. The assessment scale for ECE consisted of five distinct initiatives, each with a varying number of items. A total of 140 teachers and 140 head teachers were selected as the sample group from District Kasur to gather data for this study. Subsequently, the collected data underwent analysis, and the resulting findings are presented below.

Table 1

Teachers and Principals' Rating of Early Childhood Education Development (DVP)

Statement		M.	S.D.	%	%	%	%	%
The government funds ECE classrooms.	TCH	4.16	0.931	0	9	10	37	44
	HT	3.67	.992	0	16	23	39	22
Dedicated ECE play spaces.	TCH	4.30	0.770	0	3	10	41	46
	HT	4.77	.454	0	0	1	20	79
Equipped learning environment.	TCH	4.21	0.948	0	11	2	41	46
	HT	3.72	1.087	2	18	10	46	24
Boosts student retention.	TCH	4.19	0.951	3	6	3	46	42
	HT	4.34	.607	0	1	4	56	39
Enhances enrollment of students ages 3-8.	TCH	4.20	0.779	0	3	14	44	39
	HT	4.27	.666	0	1	8	53	38
Fosters lifelong learning foundations.	TCH	4.00	0.898	0	11	6	54	29
	HT	4.50	.502	0	0	0	50	50

These responses are assessed on a Likert scale, ranging from 1 to 5, capturing the level of agreement with specific statements about ECE classroom development. The mean (Meana) values and standard deviation (SD) values are provided to offer insights into the perceptions of both teachers (TCH) and head teachers (HT).

Starting with the first item, "DVP1 - Special funds provided by Government for ECE classroom," teachers expressed a relatively higher mean value of 4.16, indicating that they view the allocation of special government funds positively for enhancing ECE classrooms. Conversely, head teachers had a slightly lower mean of 3.67, possibly implying a more cautious perspective on government funding.

The second item, "DVP2 - Separate classroom with playing facilities at ECE level," was rated positively by both groups. Teachers gave an average score of 4.30, and head teachers rated it even higher at 4.77. This signifies a general consensus that having dedicated classrooms with play facilities benefits early childhood education.

"DVP3 - ECE classroom has all necessary learning aids" portrays a divergence in opinions. Teachers awarded a mean score of 4.21, reflecting their satisfaction with the availability of learning aids. In contrast, head teachers rated it lower at 3.72, suggesting a less optimistic view of the sufficiency of learning resources for ECE students.

Turning to "DVP4 - ECE rooms helpful for increasing student retention," both teachers and head teachers acknowledge the positive impact of ECE classrooms on student retention. While teachers recorded a mean of 4.19, head teachers had a slightly higher score of 4.34,

indicating a shared belief in the beneficial role of ECE spaces in enhancing student engagement and persistence.

"ECE room effectiveness in improving student enrollment, especially for children aged 3-8 years," marked as "DVP5," garnered similar ratings from both groups. Teachers' mean value stood at 4.20, while head teachers gave a score of 4.27, underlining a mutual understanding of ECE classrooms' potential to enhance student enrollment, particularly within the specified age range.

Lastly, "DVP6 - ECE room's role in fostering basic concepts, skills, and attitudes for lifelong learning" displayed a distinction between teachers and head teachers. While teachers gave a mean score of 4.00, suggesting a moderate perception of ECE classrooms' impact on foundational learning, head teachers rated it notably higher with a mean value of 4.50, indicating a stronger belief in the lifelong learning foundation set by ECE environments.

Table 2

Teachers and Principals' Rating of Child-friendly Environment for ECE (CFE)

Statement		M.	S.D.	%	%	%	%	%
Artistic expression in ECE is encouraged.	TCH	4.02	0.683	0	3	14	62	21
	HT	4.10	.649	0	4	5	68	23
Support for struggling ECE learners	TCH	4.14	0.875	0	6	15	39	40
	HT	4.06	.789	0	5	13	53	29
Promoting cooperative learning in ECE.	TCH	3.87	0.880	0	9	20	47	24
	HT	4.06	.697	0	4	9	64	23
Inclusive education sparks interest.	TCH	3.88	0.852	3	2	19	56	20
	HT	4.07	.854	0	9	5	55	31
Fostering ECE independence learning.	TCH	3.84	0.942	0	14	12	50	24
	HT	4.14	.517	0	0	8	71	21

Table 2 offers insights into the perceptions of both teachers and head teachers regarding a child-friendly environment within Early Childhood Education (ECE) classrooms, categorized into five distinct items. The table encompasses mean (Meana) values and standard deviation (SD) values, reflecting the responses on a Likert scale.

Commencing with "CFE7 - Children encouraged to express feelings through arts in ECE classrooms," teachers recorded a mean

score of 4.02, while head teachers' mean was slightly higher at 4.10. Both groups evidently acknowledge the importance of artistic expression in fostering a child-friendly atmosphere that nurtures emotional expression and creativity among students.

"CFE8 - Additional support provided for ECE students facing learning difficulties" garnered positive responses from both teachers and head teachers. With teachers indicating a mean value of 4.14 and head teachers with 4.06, it is evident that both groups are invested in

providing additional assistance to ECE students encountering learning challenges, contributing to an inclusive and supportive environment.

For "CFE9 - Children encouraged for cooperative learning in ECE classrooms," teachers' mean score stood at 3.87, whereas head teachers' mean was slightly higher at 4.06. Both groups seem to recognize the significance of collaborative learning, yet teachers appear to be slightly less inclined towards cooperative learning compared to head teachers.

"CFE10 - Education provided to all students, maximizing interest in learning," reflected teachers' mean value at 3.88 and head teachers' at 4.07. These ratings suggest that while both groups agree on the importance of inclusive education that fosters student engagement, head teachers seem to hold a more favourable view regarding the effectiveness of this approach.

Lastly, "CFE11 - Independence learning for ECE children fostered in the classroom" showed

a contrast in perspectives. Teachers' mean score was 3.84, indicating a moderately positive perception, while head teachers' mean was notably higher at 4.14, demonstrating a stronger belief in the promotion of independent learning within ECE classrooms.

In summary, Table 2 highlights that both teachers and head teachers recognize the significance of a child-friendly environment within ECE classrooms, as reflected in their positive mean values. While both groups share common ground on various aspects, nuanced differences arise in their perceptions of cooperative learning, inclusive education, and fostering independent learning. The table underscores the importance of these dimensions in shaping a nurturing and supportive educational environment for young learners, and the variations in mean values offer insights into the differing viewpoints between teachers and head teachers.

Table 3

Responses of teachers and head teachers for ECE standardized Kit for ECE room

Statement		M.	S.D.	%	%	%	%	%
ECE Kit Aids Learning.	TCH	3.94	0.670	0	3	17	64	16
	HT	4.32	.603	0	0	7	54	39
Kit Tailored to Age.	TCH	4.06	0.697	0	2	15	58	25
	HT	4.18	.692	0	2	10	56	32
Training Needed for ECE Kit.	TCH	3.95	0.762	3	0	14	65	18
	HT	4.41	.689	0	3	3	44	50
ECE Kit Boosts Learning.	TCH	3.91	0.872	3	3	17	55	22
	HT	4.16	.761	0	3	13	49	35
Enhances Cognitive Development.	TCH	4.26	0.764	0	3	10	44	43
	HT	4.71	.484	0	0	1	26	73
Enhances Physical Development.	TCH	4.27	0.677	0	0	13	47	40
	HT	4.12	.791	0	6	8	54	32
Supports Emotional Development.	TCH	4.26	0.755	0	3	10	45	42
	HT	3.94	.812	0	4	25	45	26
Fosters Social Development.	TCH	4.23	0.790	0	3	14	41	42
	HT	3.97	.913	0	4	30	30	36

Table 3 provides insights into the perspectives of both teachers and head teachers regarding the implementation of an Early Childhood Education (ECE) standardized kit within ECE

classrooms. The table is organized by items, with mean (Meana) values and standard deviation (SD) values, reflecting responses on a Likert scale from 1 to 5. These values offer an

understanding of how educators perceive the benefits and effectiveness of the ECE kit in facilitating various aspects of child development.

Starting with "ECE Kit Aids Learning" teachers' mean score was 3.94, while head teachers scored slightly higher with a mean of 4.32. Both groups seem to value the presence of essential learning materials, with head teachers expressing a more pronounced appreciation for their efficacy.

"Kit Tailored to Age" reveals that both teachers and head teachers generally endorse the alignment of teaching materials with the age-specific needs of young learners. Teachers rated this item with a mean of 4.06, while head teachers' mean was 4.18.

"Training Needed for ECE Kit" teachers had a mean score of 3.95, indicating their awareness of the requirement for training in effectively utilizing the ECE kit. Headteachers rated this item higher, with a mean of 4.41, emphasizing the importance of training in optimizing the kit's potential.

The statement "ECE Kit Boosts Learning" garnered a mean score of 3.91 from teachers and 4.16 from head teachers. Both groups recognize the value of hands-on, experiential learning facilitated by the ECE kit.

"Enhances Cognitive Development." Teachers and head teachers seem to agree on the cognitive benefits of the ECE kit, with respective mean values of 4.26 and 4.71.

Turning to physical development, "Enhances Physical Development" both teachers and head teachers perceive the kit's positive impact on physical development, albeit with slight differences in mean values (4.27 for teachers and 4.12 for head teachers).

"Supports Emotional Development" exhibits a shared sentiment among teachers (mean: 4.26) and head teachers (mean: 3.94) about the kit's role in nurturing emotional growth, although head teachers appear slightly less convinced.

Lastly, in "Fosters Social Development" teachers and head teachers concur on the kit's

potential to enhance social development, with mean values of 4.23 and 3.97, respectively.

In summary, the table underscores the general agreement among educators on the positive impact of the ECE standardized kit on various dimensions of child development. Teachers and head teachers generally acknowledge the kit's role in fostering cognitive, physical, emotional, and social growth, but there are subtle differences in their perceptions. The standard deviation values reveal the extent of consensus and variation in responses, offering valuable insights into educators' opinions about the efficacy and potential of the ECE kit.

The CFE dimension emphasized the encouragement of child expression through arts, support for struggling students, cooperative learning, and fostering independence. Both groups displayed agreement on the positive influence of these practices on child development and learning.

Regarding the KIT dimension, the provided ECE kits were perceived positively by both teachers and head teachers. These kits were acknowledged as beneficial for diverse aspects of child development, including cognitive, physical, emotional, and social growth.

The study highlighted that teachers and head teachers largely aligned in their perceptions of these ECE initiatives. Such congruence between these two key stakeholders suggests a shared understanding of the significance of these initiatives for effective early childhood education.

In summary, the findings of this study underscore the importance of well-equipped ECE classrooms, child-friendly environments, and standardized kits in fostering comprehensive development among young learners. The high level of agreement between teachers and head teachers reaffirms the relevance of these initiatives and emphasizes the need for continued collaboration and investment in early childhood education to ensure the holistic growth and success of young students.

Recommendations

1. Recognizing the variability in perceptions of ECE classroom development and the ECE kit, educational institutions should provide tailored professional development programs for teachers and head teachers. These programs should focus on enhancing teaching strategies, utilizing learning aids effectively, and promoting cooperative and independent learning. By addressing the nuanced differences in viewpoints, educators can collaboratively work towards a cohesive and effective ECE learning environment.
2. To bridge the perception gap regarding the sufficiency of learning aids (DVP3) and emotional development through the ECE kit (KIT18), schools should adopt a holistic approach that integrates both academic and emotional support. This involves ensuring a well-equipped learning environment while also incorporating activities that nurture emotional intelligence and resilience. Collaborative efforts between teachers, head teachers, and parents can optimize children's growth across cognitive, emotional, and social domains.
3. Acknowledging the shared agreement on the benefits of experiential learning (KIT15) and independence fostering (CFE11), educators should prioritize the incorporation of hands-on, inquiry-based activities in the curriculum. Schools can establish dedicated spaces for exploration and creative expression, facilitating independent and collaborative projects. This approach aligns with the belief in lifelong learning foundations (DVP6), offering children opportunities to develop critical skills, confidence, and a passion for learning from an early age.

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