Emerging Trends of Assessment and Evaluation toward Students' Learning in Early Childhood Education: An Analysis

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Abstract

The study aimed to analyze the, "Emerging Trends of Assessment and Evaluation toward Students' Learning in Early Childhood Education". The study was survey and descriptive in nature. The quantitative as well as qualitative (QUAN-qual.) method was adopted. The sample of study consisted of twenty (20) head teachers, twenty (20) caregiver, and four hundred (400) children of primary classes. Total sample of study comprised; the four hundred and forty (440). The researcher developed questionnaire for data collection from sampled respondents. The observation sheet to observe children activities. The collected data was analyzed through SPSS-23 applying relevant formulas as frequency, percentage, standard deviation and mean score etc. The study indicated that majority of learners improve their writing skills through use of pencils. Additionally, caregivers predominantly assess children's interests through their participation, and they evaluate children's attitudes through assigned tasks. It concluded that the majority of learners improve their writing skills through the use of pencils. Additionally, caregivers primarily assess children's interests through their participation and consistently evaluate children's attitudes through assigned tasks.

Introduction

"Early Childhood Education is the most important period for the development of mental and social development" (Shakir et al., 2011, p.517). Early Childhood Education, as outlined in the National Policy on Education (NPE, 2004), refers to the education provided in an educational institution to children before they enter primary school. Akinola (2004) defines it as education given to children aged three to five-plus prior to primary education. Early childhood is a period of significant growth and development. During the years from birth to age five, children develop more rapidly than at any other time in their lives, influenced greatly by their experiences in the world. These early years are crucial for establishing a solid foundation in cognitive, language, and motor development, as well as in social, emotional, regulatory, and moral development (NRC and IOM, 2000). Stimulating, nurturing, and stable relationships with parents and other caregivers are essential for children's healthy development, and the absence of these factors can adversely affect their development (Zafar & Muhammad, 2023).

Policy-makers and the public often underestimate the significant responsibilities of the ECCE workforce, who influence many aspects of children's development both in the short and long term (Karoly et al., 2005). As the authors of "From Neurons to Neighborhoods" concluded; society must urgently recognize the importance of out-of-home relationships for young children, valuing those who care for them in their parents' absence and compensating them adequately to ensure stability and quality in these relationships for all children, regardless of family income or developmental needs (NRC and IOM, 2000).

Despite the passage of ten years since that report's publication, most teachers and caregivers continue to receive low wages and low status, often being referred to merely as "babysitters" or "child watchers." While teachers in publicly funded preschool settings fare slightly better, their positions are still considered lower status compared to elementary and secondary educators. This has resulted in high turnover and limited career opportunities within the field (Kagan et al., 2008).

While real differences exist between settings regarding the emphasis on educational goals versus basic care, opportunities to foster healthy development and early learning are present in all

types of settings. It is argued that children should experience effective practices in any care arrangement, regardless of its primary purpose (NAEYC, 2009). Furthermore, having a workforce capable of implementing research-based practices is essential not only because high-quality experiences benefit children, but also because the prevalence of low-quality experiences can harm children's development and exacerbate the achievement gap before kindergarten (Pianta et al., 2009; Zafar et al., 2019).

Studies have examined specific segments of the workforce, such as Head Start or state prekindergarten programs, but there is limited data about the workforce as a whole to help policymakers develop strategies for improving early childhood care and education or to evaluate the effectiveness of those policies (Brandon and Martinez-Beck, 2006). The available data indicate that the workforce is largely female and poorly compensated (see Chapter 2; Kagan et al., 2008); however, they vary widely in many other ways influenced by contextual factors at various levels. Working conditions, compensation, professional development opportunities, incentives and systems of recognition, and administrative support, as well as policies at the federal, state, and local levels, constitute the context that shapes how this vital workforce functions.

The primary purpose of workshop was to adequately describe the ECCE workforce by outlining the parameters that define this population. The planning committee interpreted this charge as encompassing three areas of examination: (1) defining and describing the nature of the current ECCE workforce; (2) examining the characteristics of the workforce that affect the development of children; and (3) describing the context of the workforce and determining how best to build the ECCE profession in ways that promote program quality and effective child outcomes while supporting the essential individuals who provide care and education (Shaheen et al., 2024).

The benefits of ECEC for individuals throughout their lives, as well as for society as a whole, have been well-documented across various academic fields (Heckman and Masterov, 2007; Heckman, 2006; Zafar etal., 2019). According to UNESCO (2015), Early Childhood Care and Education (ECCE) comprehensively encompass actions related to meeting basic educational needs by ensuring quality, opportunity, and equality. This involves health preservation through care, nutrition, and hygiene to support growth, as well as providing assistance, care, shelter, and protection for women and families, promoting justice, freedom, and cultural respect. Furthermore, it includes investing in the realities and needs of children and families from different contexts to

achieve their development and survival. The individuals who comprise the early childhood care and education (ECCE) workforce are important providers of these early experiences. They form meaningful bonds with the children in their care, and their interactions, behaviors, and teaching practices all influence children's development, as well as their later school readiness (NRC, 2001; Peisner-Feinberg et al., 2001; Pianta and Stuhlman, 2004). Moreover, they are affecting the development of an increasing proportion of U.S. children. Current estimates indicate that more than half of the 25.5 million U.S. children under age 6 spend time in the regular care of someone other than a parent in a typical week (Federal Interagency Forum on Child and Family Statistics, 2011; Iruka and Carver, 2006). These arrangements can include center-based child care, preschool, family child care centers, or informal care arrangements with friends, family, and neighbors, both paid and unpaid. The term "early childhood care and education" is inclusive of all these arrangements.

What is ECE?

A child's early years are a critical period for parents, teachers, caregivers, and administrators to provide meaningful interactions that significantly impact the child's later life (Gordon and Browne, 2016). Similarly, Aladekomo (2004) views pre-primary education as the education given to children aged 3-5 in an educational institution before they enter primary school.

What is purpose of ECE?

The primary purpose of early care or educational settings significantly influences perceptions and expectations for the workforce. Bellm and Whitebook (2006) identify two types of ECCE services: those with an educational focus and those primarily aimed at providing a safe environment that meets the basic needs of children of working parents. In the United States, Early Childhood Education (ECE) programs have a long history of nurturing and educating young children. Initially, these programs were seen as additional support for specific children or as childcare for working parents. Many public ECE programs aimed to break the cycle of poverty by educating children and influencing the parenting practices of their families (Rose, 2009; Rasheed wt al., 2024).

What are basic elements of ECE?

Key elements such as child-sized furniture, hands-on learning activities, multiage classrooms, sensitive periods for learning, the absorbent mind, and the significance of movement

in brain development (Lillard, 2005) have profoundly impacted contemporary educational practices both directly and indirectly.

The quality of dynamic interactions among Early Childhood Education (ECE) teachers, peers, and learning materials in ECE settings is crucial. Nakawa (2020) highlighted that learning through play is particularly effective for teaching children basic shape features and essential mathematical concepts such as congruency, similarity, and symmetry.

Define Pedagogy?

According to Siraj-Blatchford et al. (2002), "pedagogy refers to the interactive process between teacher and learner as well as the learning environment."

Pedagogical Approaches in ECE:

Teachers and practitioners are expected to employ various pedagogical approaches when instructing students. There are following pedagogical approaches as given below:

1. Play-Based Approach
2. Theme-Based Approach
3. Activity-Based Approach
4. Projects/Inquiry-Based Approach
5. Paley's Storytelling and Story Acting Approach

Assessment and Evaluation in ECE

In child-dominated education, the teacher acts as a passive observer rather than an active participant in learning. Decisions are primarily made by the children, with adult intervention occurring only in cases of extreme necessity, such as ensuring safety or health (Stipek & Byler, 2005). This approach is marked by the absence of fixed rules and intentional adult activities to support children's development. It has been suggested that the best outcomes for children result from a blend of child-centered and adult-directed teaching approaches (Eurydice, 2009). A key aspect of the Montessori Method is its individualized nature, where children engage in self-directed activities. Through systematic observation, educators can identify and address the specific needs of each child (C.P. Edwards, 2002; Huxel, 2013). Evaluation typically involves grading students' performance in class tests, assignments, and participation in competitions or workshops. When students perform well, they receive appreciation from teachers, which validates the instructional methods. Conversely, when students do not perform well, teachers must improve

their teaching methods and encourage students to focus on their studies. According to Whitescarver and Cossentino (2008), assessment in Montessori education is real, continuous, and devoid of most forms of compensation or penalty. Montessori teachers are trained to support each child's holistic development, guiding them to become mature individuals with a sense of social responsibility. While some may view this perspective as challenging adult authority, Smith (2007) argues that realizing children's participation rights is essential for fostering inclusion, resilience, and empowerment. The educator's role is pivotal in ensuring that this is so, and to forge meaningful connections between the environment and the child (Isaacs, 2010).

Educators' roles extend beyond imparting knowledge to making learning meaningful, enhancing, and elevating students, with a focus on progress and recognizing inherent value (Altarejos, 2003). Pedagogy encompasses more than teaching methods, curriculum, or assessment. Effective ECE teachers ask thoughtful questions, gather information from individual children, and observe them systematically to tailor instruction to each student's needs (Riley-Ayers, 2014). Feedback loops during interactions support young children's knowledge (Hamre & Pianta, 2005).

Sang (2013) described ECE teachers as competent and supportive, creating a healthy and stimulating environment that is beneficial for children's growth and sustainable learning conditions. Participation offers children the chance to develop their social and learning skills (Willow, 2002). Children's participation rights encompass activities in all areas of their lives, such as family, school, healthcare, and local communities (Lansdown, 2001).

 Opportunities for students to practice exercising responsibility help them understand it (Schwab & Elias, 2014). Fleith (2000) contested that teachers could effectively promote creativity by establishing a relaxing atmosphere in the
classroom.

Research Objectives

- To determine the emerging trends of assessment and evaluation towards students learning at Early Childhood Education level
- To compere the gender-based emerging trends of assessment and evaluation towards students learning at Early Childhood Education level

- To compere the locality-based emerging trends of assessment and evaluation towards students learning at Early Childhood Education level
- To compere the sector-based emerging trends of assessment and evaluation towards students learning at Early Childhood Education level

Research Questions

1. What are the emerging trends of assessment and evaluation towards students learning at Early Childhood Education level?
2. Is there any significance difference of gender-based emerging trends of assessment and evaluation towards students learning at Early Childhood Education level?
3. Is there any significance difference of locality-based emerging trends of assessment and evaluation towards students learning at Early Childhood Education level?
4. Is there any significance difference of sector-based emerging trends of assessment and evaluation towards students learning at Early Childhood Education level?

Research Methodology

"The methodical study of the procedure is called the research method" (Ahmad et al., 2023, p.207). The study was survey and descriptive in nature and the quantitative as well as qualitative (QUAN-qual.) method was adopted. The explanatory sequential approach was adopted. "The population is defined as a set of individuals, data, or items from which a statistical sample is taken" (Younus et al., 2023). Moreover, "It is group of interest to the researcher, the group to whom the researcher would like to generalize the result of study" (Rasheed et al., 2024, p.57). Population of study consisted of 567 head teachers 2,376 caregivers and 36,594 students from primary schools, as detailed on [SIS Punjab] (https://sis.punjab.gov.pk/). The probability sampling approach was used, specifically the cluster random sampling method. Research sample enables researcher to collect data from small group which is representing the entire population (Rao et al, 2023). The sample included 20 head teachers, 20 caregivers and 400 students from primary schools, based on the sampling chart from L.R. Gay's book "Educational Research."

Instruments preform significant part to assemble accurate information from research contributors (Sadaf et al., 2024). The data collection tools included a questionnaire developed by the researchers, divided into three parts: Part 1 covered demographics, Part 2 consisted of closed-

ended questions, and Part 3 included open-ended questions. The questionnaire was tailored for head teachers and caregivers. The research tools underwent pilot testing to ensure validity and reliability, with the validity verified through expert opinion and reliability calculated using Cronbach's Alpha. The collected data was organized and entered into a data sheet. The collected data was analyzed through (SPSS-23), using statistical formulas such as frequency, percentage, measures of central tendency, and standard deviation.

Data Analysis

Table.1: Factor: ECE Assessment and Evaluation

Themes	Stat.	Responses						SD	Mean
		1	2	3	4	5	Total		
Theme.1	F	0	5	6	17	12	40	.98189	3.9000
	%	0	12.5	15.0	42.5	30.0	100		
Theme.2	F	1	5	11	10	13	40	1.13199	3.7250
	%	2.5	12.5	27.5	25.0	32.5	100		
Theme.3	F	0	2	11	11	16	40	.94699	4.0250
	%	0	5.0	27.5	27.5	40.0	100		
Total	F	0.33	4	9	12.6	13.6	40	1.0202	3.8833
	%	1.16	10	23.3	31.6	34.1	100		

Table.1 presents Factor-5: ECE Assessment and Evaluation. Data analysis represents that 34.1 % of Head teachers and caregivers are always, 31.6% of Head teachers and caregivers are mostly, 23.3% of Head teachers and caregivers are sometimes, 10% of Head teachers and caregivers are rarely and 1.16% of Head teachers and caregivers are never agreed with the given statement. As a whole majority of Head teachers and caregivers are always agreed with given statements. The mean score 3.8833 and standard deviation 1.0202 supported the statement.

Table.2: Gender-based Analysis: Factor: ECE Assessment and Evaluation

Themes	Gender	N	Statistics				
			Mean	SD	T-value	df	Sig.
Themes.1	Male	228	4.1447	.76896	.159	437	.272
	Female	211	4.1327	.81733	.159	428	
Theme.2	Male	228	4.0044	.92206	-.777	437	.138

	Female	211	4.0711	.87269	-.779	436	
Theme.3	Male	228	4.2018	.85184	.204	437	.225
	Female	211	4.1848	.88853	.203	430	
Total	Male	228	4.1169	0.84762	-0.138	437	0.211
	Female	211	4.1295	0.8595	-0.139	431	

Table.2: Gender-based Analysis: Indicator: ECE Assessment and Evaluation:

Theme.1 data analysis reflects that mean value of male is 4.1447 and female is 4.1327 that reflects that males perform well than females. The standard deviation .76896, T-value .159, df 437 and Sig .272. also supported.

Theme.2 data analysis reflects that mean value of male is 4.0044 and female 4.0711 is that reflects that females perform well than males. The standard deviation .87269, T-value - .779, df 436.776 and Sig .138. also supported.

Theme.3 data analysis reflects that mean value of male is 4.2018 and female is 4.1848 that reflects that males perform well than females. The standard deviation .85184, T-value.204, df 437 and Sig .225. also supported.

Collectively, data analysis reflects that mean value of male is 4.1169 and female is 4.1295 that reflects that females perform well than males. The standard deviation 0.8595, T-value -0.139, df 431 and Sig. 0.211 also supported.

Table.3: Locality-based Analysis: Factor: ECE Assessment and Evaluation

Themes	Locality	N	Statistics				
			Mean	SD	T-value	df	Sig.
Theme.1	Urban	227	4.1233	.80525	-.427	437	.712
	Rural	212	4.1557	.77845	-.427	436	
Theme.2	Urban	227	3.9559	.94906	-1.949	437	.025
	Rural	212	4.1226	.83414	-1.958	435	
Theme.3	Urban	227	4.1674	.87653	-.654	437	.594
	Rural	212	4.2217	.86144	-.654	435	
Total	Urban	227	4.0822	0.876	-1.01	437	0.443
	Rural	212	4.1666	0.824	-1.013	435	

Table.3: Locality -based Analysis: Indicator-5: ECE Assessment and Evaluation: Theme.1 data analysis reflects that mean value of urban is 4.1233 and rural is 4.1557 that reflects that rural perform well than urban. The standard deviation .77845, T-value -.427, df 436.475 and Sig .712. also supported.

Theme.2 data analysis reflects that mean value of urban is 3.9559 and rural 4.1226 is that reflects that rural perform well than urban. The standard deviation .83414, T-value -1.958, df 435.146 and Sig .025. also supported.

Theme.3 data analysis reflects that mean value of urban is 4.1674 and rural is 4.2217 that reflects that rural perform well than urban. The standard deviation .86144, T-value -.654, df 435.859 and Sig .594. also supported.

Collectively, data analysis reflects that mean value of urban is 4.0822 and rural is 4.1666 that reflects that rural perform well than urban. The standard deviation 0.824, T-value-1.013, df 435 and Sig. 0.443 also supported.

Table.4: Sector-based Analysis: Factor: ECE Assessment and Evaluation

Themes	Sector	N	Statistics				
			Mean	SD	T-value	df	Sig.
Theme.1	Public	228	4.1447	.76896	.159	437	.272
	Private	211	4.1327	.81733	.159	428	
Theme.2	Public	228	4.0044	.92206	-.777	437	.138
	Private	211	4.0711	.87269	-.779	436	
Theme.3	Public	228	4.2018	.85184	.204	437	.225
	Private	211	4.1848	.88853	.203	430	
Total	Public	228	4.1169	0.847	-0.138	437	0.211
	Private	211	4.1295	0.859	-0.139	431	

Table.4: Sector -based Analysis: Indicator-5: ECE Assessment and Evaluation:

Theme.1 data analysis reflects that mean value of public is 4.1447 and private is 4.1327 that reflects that Public perform well than Private. The standard deviation .76896, T-value .159, df 437 and Sig .272. also supported.
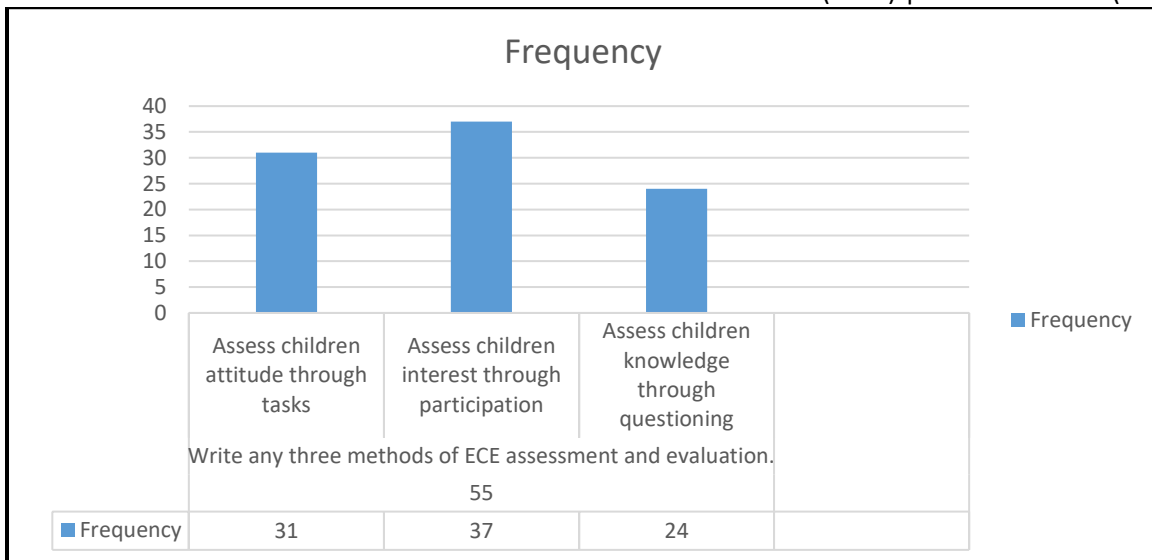
Theme.2 data analysis reflects that mean value of public is 4.0044 and private 4.0711 is that reflects that Private perform well than Public. The standard deviation .87269, T-value -.779, df 436.776 and Sig .225. also supported.

Theme.3 data analysis reflects that mean value of public is 4.2018 and private is 4.1848 that reflects that Public perform well than Private. The standard deviation .85184, T-value .204, df 437 and Sig .225. also supported.

Collectively, data analysis reflects that mean value of public is 4.1169 and private is 4.1295 that reflects that Private perform well than Public. The standard deviation 0.859, T-value -0.139, df and Sig. 431 also supported.

Open-Ended Data
Figure.1**:** Q.NO.1 Write any three methods of ECE assessment and evaluation

Frequency

	Assess children attitude through tasks	Assess children interest through participation	Assess children knowledge through questioning
Frequency	31	37	24

Write any three methods of ECE assessment and evaluation. 55

Graps.1: presents any three methods of ECE assessment and evaluation. Data indicated that 37out of 40 school head teachers and caregivers opined that assess children interest through participation 31 out of 40 school head teachers and caregivers viewed that assess children attitude through tasks and 24 out of 40 school head teachers and caregivers said that assess children knowledge through questioning. Collectively, assess children interest through participation.

Findings

- The study found that 48% of the learners mostly Children improve writing skills through pencil, 35% of the learners always Children improve writing skills through pencil, 14% of the learners sometimes Children improve writing skills through pencil, 2% of learners rarely Children improve writing skills through pencil and 1% of the learners never Children improve writing skills through pencil. Mean score 4.17 and standard deviation.761supported

- The study described that 40% of the learners mostly Caregiver assess children interest through participation, 36% of the learners always Caregiver assess children interest through participation, 19% of the learners sometimes Caregiver assess children interest through participation, 5% of learners rarely Caregiver assess children interest through participation and 0% of the learners never Caregiver assess children interest through participation. Mean score 4.07 and standard deviation .863 supported.

- The study showed that 47% of the learners always Caregiver assess children attitude through tasks, 29% of the learners mostly Caregiver assess children attitude through tasks,

21% of the learners sometimes Caregiver assess children attitude through tasks, 2% of learners rarely Caregiver assess children attitude through tasks and 1% of the learners never Caregiver assess children attitude through tasks. Mean score 4.21 and standard deviation .853 supported.

Discussion

The study indicated that the majority of learners improve their writing skills through the use of pencils. Additionally, caregivers predominantly assess children's interests through their participation, and they evaluate children's attitudes through assigned tasks. Ruto-Korir (2010) revealed that although teachers expressed support for child-centered education, their activities were predominantly teacher-centered. Niikko and Havu-Nuutinen (2009) found that while teachers' objectives regarding preschool education aligned with the national curriculum, in practice, their activities did not reflect this alignment, and their beliefs about preschool education were traditional.

In child-dominated education, the teacher acts as a passive observer rather than an active participant in learning. Decisions are mainly made by the children themselves, with adults intervening only in cases of extreme need, such as safety or health concerns (Stipek & Byler, 2005). This approach is characterized by a lack of fixed rules and purposeful adult activities to support children's development. It has also been suggested that the best outcomes for children result from a combination of child-centered and adult-directed teaching approaches (Eurydice, 2009). According to Lindon (2010), experiences initiated by children are not necessarily better than those initiated by adults when the activities organized by adults are of higher quality than those directed by children.

The study affirmed that caregivers of girls' schools assess students' learning and interest through active participation in activities than the caregivers of boys' schools at Early Childhood Education. The study showed that the caregivers of rural schools assess students' learning through modern methods than the caregivers serving in urban schools. The study indicated that the caregivers of private schools assess students' learning through modern methods than the caregivers serving in public schools.

Conclusion

The study focused on the emerging trends of assessment and evaluation in Early Childhood Education towards students learning. The study concluded that majority of little learners of Early Childhood Education improve their writing skills through the use of pencils. Additionally, caregivers primarily assess children's interests through their participation and consistently evaluate children's attitudes through assigned tasks. The study concluded that female caregivers assess students' learning and interest through active participation in activities than male caregivers at Early Childhood Education. The study concluded that the caregivers of rural schools assess students' learning through modern methods than the caregivers serving in urban schools. The study concluded that the caregivers of private schools assess students' learning through modern methods than the caregivers serving in public schools.

Recommendations

The study recommended that:

- The assessment and evaluation is very important and play significant role in Early Childhood Education. The different learning tasks may be assigned to learners for the caregiver learners' performance and attitude.

- The interaction with little kids is very effective to see their performance. The different questions and topics may be asked from the learners to assess their knowledge.

- The caregiver may be encouraged the learners to participate in different activities. The caregiver may develop confidence among ECE learners and to assess learners' interest.

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