RESEARCH ARTICLE

Volume 4, **Issue** 2, July-December, 2025 (pages 20-43)

Journal of Childhood Literacy and Societal Issues

Peer-reviewed, Open-access, HEC-recognized Y-category

Journal DOI: https://doi.org/10.71085/joclsi

P-ISSN: 3006-7863 **E-ISSN:** 3006-7871

Systemic Barriers and Quality Enhancement Priorities in Early Childhood Care and Education (ECCE): Insights from South Punjab, Pakistan

Dr. Muhammad Rafiq-uz-Zaman[1]

[1] Doctor of Education, Department of Education, The Islamia University of Bahawalpur, Punjab, Pakistan.

Email: mrzmuslah@gmail.com

Doi: https://doi.org/10.71085/joclsi.04.02.83

Article information

Article History:
Received: 2025-10-04
Received in revised form: 2025-11-12
Accepted: 2025-11-18
Published Online: 2025-12-01

Keywords:
Early Childhood Care and Education; Systemic Barriers; Quality Improvement; Teacher and Caregiver Perceptions; South Punjab; Pakistan;

ABSTRACT

This paper examined systemic issues that influence the Early Childhood Care and Education (ECCE) and investigated the views of practitioners on the quality improvement areas in South Punjab Pakistani public schools. The mixed-method design was used to collect data on 150 ECCE teachers and caregivers using a structured questionnaire with five open-ended questions. The quantitative data were examined by descriptive statistics, independent samples t-tests, and regression analysis, and the qualitative responses were analysed according to their themes. The results demonstrated significant problems in the areas of classroom management, curriculum and teaching resources, infrastructure and learning environment, and administrative and professional support. A big number of students in classes, lack of training in contemporary teaching aids, insufficient play materials, and poor administrative support became major obstacles. Only a major difference was observed in the area of administrative and professional support where caregivers expressed more concern than teachers. Nevertheless, the respondents gave a resounding support to the strategies of improvement like trained staffing, continuous professional development, parental involvement, and greater government funding. Qualitative information supported the supportive settings, practical training and workload reduction to support ECCE provision. Study finds out that the ECCE should be systemically reformed to achieve sustainable improvement and proposes specific investment in workforce capacity, infrastructure, and governance that can bring about quality improvement.

The Journal is published biannually (June & December) by the Centre for Children Literacy and Lifelong Learning (CCLLL), Pakistan. **Web link:** https://cclll.org

Introduction

Early childhood Care and Education (ECCE) has proved to be an essential pillar to the overall growth of children and their future academic success. Within the last 20 years, the world of education has been witnessing a change in the thinking pattern on ECCE as a service of welfare to an important aspect of human capital formation. UNESCO (2021) indicates that high-quality ECCE has a great impact on children cognitive skills, socio-emotional development, and readiness to enter the school, the results of which are observed in the adult years. According to UNICEF (2019), early life stages are an essential developmental period, and quality interventions at this stage provide lifetime returns, especially on the lives of children with disadvantaged backgrounds. OECD (2021) also emphasizes that the nations that invest in effective systems of ECCE witness enhanced equity in education, social solidarity, and economic performance. As a result, the world priorities have stopped to increase access to ECCE to focus on its quality, equity and systemic sustainability.

The growing trend of prioritizing quality ECCE globally puts into the limelight the relevance of highly educated teachers, child-based pedagogy, secure and challenging learning conditions and evidence-based management of early education systems. According to Tilbe, & Gai, (2022), high-quality ECCE is highly dependent on teacher-child interactions and developmentally appropriate practices practiced in classrooms. Equally, Britto, et al, (2011) observe that, structural indicators, which include teacher qualification, training, classroom size and learning resources, among others, in combination with the process quality indicators, including instructional strategies and classroom climate, together determine the early learning experiences of children. Based on this, Slot (2018) differentiates between the structural and process quality and points out that reforms are required to create coherence in terms of teacher capacity, curriculum, environment, and system-level support to maintain the ECCE quality. These views represent an international agreement that ECCE policy and implementation should be motivated not by just access but by quality.

Although this recognition is changing, ECCE systems in most of the low and middle-income countries are still plagued by systemic problems. According to Rao and Sun (2015), the quality of ECCE in most Asian countries is not supported by the scarcity of resources, overcrowded classrooms, insufficient teacher training, and incoherent policy implementation. Blum & Dobrotić, (2023) also emphasize that the lack of equity in the professional development opportunities, insufficient monitoring systems and institutional support of the ECCE practitioners also play a role in the unequal outcome of learning.

In Pakistan, the Punjab province has made efforts to extend ECCE but irregularities are still experienced in different regions. In particular, South Punjab has other socio-economic, infrastructural, and educational disadvantages, in comparison to central and northern districts. According to Samuel Hall (2023), the rural and under-resourced districts are more affected by the lack of trained ECCE personnel, fewer investments in the learning environment, and ineffective monitoring systems. The schools in South Punjab can be characterized by the use of multi-grade classrooms, congested ECCE classrooms, and few age-related materials. Moreover, the norms of patriarchy impact the patterns of schooling, which leads to the access and staffing disparities in gender. Children day care centers accommodated in the ECCE rooms of the public boys' schools often provide caregivers with low levels of training or chances of development as a professional, which worsens the issue of providing holistic early childhood education. These contextual realities render South Punjab an important and critical location to explore systemic ECCE issues and quality improvement requirements.

This growing international and national concern about the quality of ECCE brings up a significant

`

research issue: the presence of policies and frameworks does not guarantee their effectiveness unless ECCE is applied in the classroom and school. The concept of the Ecological Systems Theory formulated by Bronfenbrenner (1979) offers an appropriate conceptual framework to explain ECCE quality because it places the learning of children in the context of interconnected systems that go beyond the classroom, institutional, community, and policy levels. Policy analysis and structural reform has been a focal point area in research undertaken in Pakistan and few studies have been able to encompass the daily life experiences, predicaments, and enhancement requirements of ECCE educators and caregivers.

To conclude, although global literature reveals that it is important to have quality ECCE and Pakistan has done its part to promote early childhood education, challenges within the system still exist in the way of quality implementation. The problem of classroom management, instructional materials, the relevance of the curriculum, learning conditions, and professional support systems are still acute. It is necessary to capture the perceptions of ECCE practitioners to define the contextually based challenges and viable strategies of improvement. It is against this background that the current study examines the systemic issues and quality improvement areas within ECCE which will be based on the views of teachers and caregivers within ECCE rooms based in the Public Boys' High Schools in South Punjab which ran ECCE rooms and employed caregivers. The next part of the paper deals with the research problem that inspired this study.

Research Problem

Although there is an increasing national and provincial initiative to enhance Early Childhood Care and Education (ECCE), Pakistan still experiences the systematic issues that hinder the quality practice in school-based early childhood provision. Despite policy reforms and SDG-4.2 goals focusing on child-centred learning, well-trained personnel, and conducive learning conditions, the actual situation within the vast majority of the public-sector ECCE classrooms is still not in line with those hopes. Public schools often do not have age-congruent learning resources, child-friendly classrooms, and trained staff members who can adopt play-based pedagogy. Conventional approaches in instruction, overcrowding of classes, ineffective administrative reinforcement and inadequate professional growth prospects further limit the successful implementation of ECCE. These are especially acute in Public Boys High Schools in South Punjab which have ECCE rooms and caregivers where institutional constraints on resources, gendered workforce, and inequity in institutional support enhance gaps in implementation.

One such issue of concern is that much of the current ECCE research and policy discussion in Pakistan has been policy-focused and not practitioner-based in nature and so, there is a relative lack of empirical insight into the lived reality of ECCE teachers and caregivers. Their voices and experiences, as well as professional needs are not widely represented in literature and policy planning.

Need of the Study

The research is required to fill the research gap between ECCE politically intended policy and the actual practice in the South Punjab within the context of the public schools. Even though ECCE has been officially accepted as a basis of lifelong learning and early childhood reforms at federal and provincial levels have been implemented, the qualitative aspects of ECCE have not been properly taken into consideration. The access and enrolment growth are still the main focus of policymakers, whereas the classroom quality, teacher readiness, infrastructure, administrative backup, and capacity-building are underrepresented. Consequently, ECCE rooms in most cases lack adequate resources, training and systemic support to facilitate meaningful early learning experiences to children.

`

Also, the voices of ECCE teachers and caregivers, who have a direct role in the implementation of ECCE practices, are not present in mainstream academic research and policy discussions in Pakistan. Their observations are essential in the realization of context-based impediments, attainable professional growth requirements, and practical methods of enhancing classroom activities and in-organizational facilitation. Creating such practitioner centred evidence is required to inform reform that is based on actual school situations, instead of assumptions on top.

The research is also timely in terms of the uniqueness of the SDG-4.2 and the moves by the Punjab School Education Department to enhance the classrooms of early childhood education. By placing particular emphasis on Public Boys; High Schools running ECCE rooms and hiring caregivers in South Punjab- the area where educational inequalities have been identified, the present study will offer the locally specific and evidence-based information to serve the purposes of policy, teacher training courses, resource distribution, and the reformation of schools. Finally, the results will be beneficial to the advances in the quality of ECCE, as they will be involved in improving the quality of school readiness and the overall development of young learners.

Research Objectives

1. To investigate the issues of classroom management among ECCE teachers and caregivers.
2. To find out issues associated with the ECCE curriculum, teaching materials, and utilization of modern instructional instruments as well as technology.
3. To investigate the problems related to physical infrastructure, hygiene, sanitation, safety, and learning environment of ECCE classrooms.
4. To explore the issue of administrative and professional support challenges to the ECCE staff, such as training, staffing, motivation, and support systems.
5. To evaluate the perceptions of teachers and caregivers on the strategies that should be used to improve the quality of ECCE.
6. To compare the variances in perceptions of ECCE challenges by the demographic variables (qualification, experience, training, gender and the role).

`

Research Questions

The research questions to be answered by this research include:

1. What are the classroom management problems faced by the ECCE teachers and caregivers in the publicly available schools?
2. What are the issues regarding ECCE curriculum, teaching resources, using instructional tools and technology?
3. What are the infrastructural, hygienic, safety and environmental problems affecting the quality of ECCE classrooms?
4. What are the administrative and professional support issues of ECCE teachers and caregivers?
5. What are the improvement strategies that practitioners feel are necessary in the improvement of ECCE quality?
6. Is there any difference in perceptions of ECCE issues in relation to demographic attributes of participants in the form of qualification, experience, training, gender, and role?

Delimitation of the Study

To guarantee this, maintenance of manageability, focus, and relevability of the context, this study is limited to a set of parameters. To begin with, the study is constrained by geographical features as it is restricted to selected districts of South Punjab given the fact that education conditions, resources and administrative abilities are different in other parts of Pakistan. Secondly, the research is limited to Public Boys High Schools in South Punjab

which run ECCE rooms and use caregivers, realising that ECCE is not equally provided in schools of different types. The sample does not include private schools, early childhood centers that are operated by non-governmental organisations and informal ECCE establishments based at the community level.

Moreover, the article examines exclusively the views of the ECCE teachers and caregivers since they are the immediate implementers of the classroom practices and they are the ones who are closest to the systemic issues discussed. The respondents do not include school administrators, parents, and policymakers. Lastly, the research is restricted to the analysis of five preset domains of challenges in ECCE which are classroom management, curriculum and resources, learning environment, administrative/professional support and improvement strategies, according to the developed structured research tool used in this study.

Theoretical Framework: ECCE Quality Framework

The Early Childhood Care and Education (ECCE) Quality Framework conceptualised by the international education organisations like the UNESCO and OECD guides the present study. The framework offers an elaborate framework of analyzing and assessing the quality of kindergarten education through the analysis of the main dimensions that determine learning and development in kids. The concept of quality in ECCE has been identified as a multidimensional approach which encompasses both the structural and process quality components, which are part of the whole learning environment and experiences that young children receive in education.

Structural quality involves underlying conditions that promote ECCE, which include; teacher qualifications, professional training, child-teacher ratios, physical infrastructure, hygiene and safety, access to learning materials and administrative enabling systems. All these elements provide the required atmosphere of successful teaching, care, and holistic development. The United Nations education program (UNESCO, 2021) and the Organization of Economic Cooperation and Development (OECD, 2022) stress the importance of good structural underpinnings to implement developmentally adequate practices. Structural gaps are one of the most significant in Pakistan especially in the ECCE classrooms in public schools where there are usually inadequate trained teachers, play-based learning activities, and age-sensitive infrastructures. This paper conforms to this dimension by researching structural issues in terms of curriculum and resources, physical setting, and support of the institution.

The question of process quality centers on the quality of interactions, classroom practices, teaching methods and the emotional climate of ECCE environment. It involves child-centered pedagogy, learning through play, positive teacher-child relationship, and exploration and socio-emotional development opportunities. It has been demonstrated worldwide that positive quality of processes is closely associated with cognitive and socio-emotional outcomes of children (UNICEF, 2019). When applied to Pakistan, the quality of processes is still limited because of conventional, teacher-centered teaching techniques and insufficient training of the teachers and caregivers on early childhood teaching practices. The article examines this through the evaluation of classroom management issues, instruction, and pedagogical experiences of ECCE practitioners.

Also, the ECCE Quality Framework emphasizes the role of workforce professionalism, family and community involvement, and enabling governance as some of the enablers of ECCE quality. It takes an efficient and motivated ECCE workforce to have continuous professional growth, appreciation, and administrative assistance, which is usually unavailable in the ECCE context in the South Punjab public sector. This study fits the dimensions of governance and workforce in the framework by capturing the perception of the practitioners towards the support

`

they get, and the way they feel improvements should be made.

Overall, the ECCE Quality Framework is a solid theoretical foundation of the proposed study because it allows conducting a comprehensive analysis of the numerous variables that do determine the quality of ECCE. It helps in exploring structural and process-related issues encountered by teachers and caregivers, as well as support the rationale of exploring ways of improvement as a necessity to improve the quality of ECCE delivery in state-run schools.

Literature Review

Early Childhood Care and Education

Early childhood care and education (ECCE) is an important cornerstone to lifelong learning and development. The childhood of the child is an important period of development that occurs during the span between birth and the age of eight years (Khan et al. 2017). It is neuroscientifically confirmed that about three-quarters of the entire brain development happens until six years old, with the initial three years being especially critical in determining cognitive architecture and social-emotional skills (Rashid et al., 2025). This developmental phase presents a rare chance to form neurological networks that affect the academic success and social life in the future and economic achievements. Moreover, quality ECCE programs have been found to lessen the effects of poverty on child development, enhance high graduation rates, lower crime rates, and enhance language and intellectual development (Rashid et al., 2025). In spite of this overwhelming evidence of the transformative potential of ECCE, there is still a very high level of inequity in the access to quality early childhood services especially in low and middle income nations like Pakistan.

Pakistan ECCE Policy Landscape

Pakistan has increasingly recognized the importance of ECCE in its national policy frameworks, but it has been taken up piecemeal and ad hoc. ECCE has been receiving only marginal attention in educational policies over the last forty years since the independence in 1947, mainly because of the lack of sufficient priority and additional developmental needs (Siddique & Auranzeb, 2024). The importance of ECCE was first identified in the National Education Policy of 2009, and reinforced in the 2017 policy with specific action plans (Siddique and Auranzeb, 2024). The international commitments such as the Dakar Framework of Action on Education for All, the Millennium Development Goals, and the Sustainable Development Goals, especially SDG 4.2, which expressly aims at universal access to quality ECCE, fueled these policy developments (Siddique and Auranzeb, 2024). Nevertheless, the difference between the articulation of policies and the ground implementation is still too big and structural, financial, and institutional barriers do not allow the efficient delivery of the services.

The present ECCE situation in Pakistan

Policy provision in Pakistan is in a dire state, despite improvements in policy. The existing enrollment statistics have provided an alarming situation: 40 percent of children aged 3-5 years are enrolled in any ECCE program, and 78 percent of them are enrolled in government schools where facilities are almost absent (Siddique and Auranzeb, 2024). The other 22 percent are in the private institutions that are generally of higher quality but unaffordable to the marginalized groups. Government bodies have severe lack of infrastructure such as lack of specific ECE classrooms, poorlyqualified teachers, and learning resources (Siddique and Auranzeb, 2024). These systemic loopholes are further worsened by the fact that there is limited inter-provincial coordination since the 18th Constitutional Amendment devolved the ECCE responsibility to the provincial governments, which led to massive disparities in ECCE development and implementation in various regions (Samuel Hall, 2023).

`

Systemic Problems in Implementation of ECCE

The introduction of ECCE in Pakistan is faced with multidimensional challenges that are policy, institutional, and community based. One of the barriers is financial constraints, as insufficient budget allocation/allocation does not allow to create separate ECE rooms, purchase learning materials, and special teacher training (Swati et al., 2023). Educator shortage is especially acute, with numerous people employed in ECE programs not having formal education and preparation to work on the programs, leading to ineffective pedagogy and inability to meet developmental goals (Rashid et al., 2025). The training of teachers is also shallow, as the vast majority of teachers are offered a short introduction course instead of two years of targeted training, as required by the policy initially (Siddique & Auranzeb, 2024). In addition to institutional forces, the systemic issues involve lack of parental awareness about ECCE benefits, community participation, monitoring and evaluation process, and the inability to address the lack of infrastructure in rural and economically disadvantaged regions (Rashid et al., 2025).

Focus on South Punjab

The example of South Punjab (Multan, D.G. Khan, Larkana, and others) illustrates the severe problems of implementing ECCE in the resource-constrained setting. This area suffers compounded disadvantage such as reduced per capita spending on education, expanded rural-urban inequalities, increased poverty levels, and reduced access to institutional resources than central Punjab (Rashid et al., 2025). Geographic and social economic marginalization of South Punjab has led to especially low enrolment rates of ECCE and little development of infrastructure. Female and girl students in this area have other obstacles associated with cultural beliefs regarding female education and a shortage of economic opportunities of female educators, which further restrict the increase of ECCE services (Rashid et al., 2025). It is crucial to understand the particular systemic challenges and quality improvement requirements in this particular geographic and socioeconomic setting to come up with contextually appropriate and sustainable solutions.

`

Methodology

Research Design

The research design adopted in this paper was a mixed method research, which combined both the quantitative and qualitative research designs in order to have a holistic insight into the systemic issues in the Early Childhood Care and Education (ECCE) and the perceived strategies that can be used to enhance the quality of the system. The quantitative part was developed on the Likert-scale structured survey, and qualitative implications were gathered by the use of open-ended questions to obtain more profound insights of ECCE practitioners. It was a cross-sectional design which gathered information at a single time of selected districts in South Punjab.

Population and Sampling

The population of interest was ECCE teachers and caregivers in the ECCE classes of the public boys' high schools in the South Punjab region of Pakistan. Purposivesampling method was taken to be able to include the people who were directly engaged in ECCE classroom activities. The study involved 150 respondents who were composed of 75 ECCE teachers and 75 caregivers. Three administrative divisions of South Punjab were randomly selected to have an even sample of three (Bahawalpur (n=50), Dera Ghazi Khan (n=50), and Multan (n=50)).

Study Setting

The research was carried out in a sample of the public high schools with ECCE classrooms in the South Punjab area. This environment was particularly selected because of its dynamic nature in education, resourcefulness, and the use of caregivers rather than the certified ECCE teachers. It offered a relevant background on the issues of systems in areas of instruction, administration and environment.

Research Instrument

The main data collection tool was in the form of a structured questionnaire. It was divided into two major parts:

Section A: Demographic Information

The following section will focus on the demographic information of the participant:

Division, role, gender, age, academic and professional qualification, teaching experience, and the number of ECCE related trainings of captured respondents.

Section B-F: Study Variables of the core study.

Included 17 close ended statements rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) in five domains:

(i) Challenges in classroom management

(ii) Curriculum and Teaching Resources Problems.

(iii) Infrastructure and Learning Environment Issues.

(iv) Administrative and Professional Supporting Problems.

(v) Improvement Strategies

Five open-ended questions were added to supplement the quantitative answers in order to obtain qualitative data about challenges encountered on a daily basis and the role of teaching, attitude towards online training, environmental factors, and support needed by ECCE to be improved.

Data Collection Procedure

Several modes were used to collect data in order to have sufficient reach and response. The questionnaire was conducted using Google Docs and the respondents in the Multan and Dera Ghazi Khan divisions were contacted through respective focal teachers of the secondary wing. In the case of the Bahawalpur division, the researcher was involved in visiting the chosen schools in person, where he administered the tool and received answers. Every participant was informed about the focus of the study and volunteered.

Data Analysis

The SPSS was used to code and analyse the quantitative data. Descriptive as well as inferential statistics was used:

Descriptive Analysis: The prevalence and intensity of ECCE-related challenges were determined by computing frequencies, means, and standard deviations.

Inferential Analysis: T-tests were carried out to compare the perceptions of teachers and caregivers, which were independent. The multiple regression test was conducted to analyze the perceived improvement strategies as predicted by the calculated ECCE challenge domains. Open-ended questions were analysed thematically to interpret and support the quantitative results of research.

`

Table 1. *Demographic Attributes of the Respondents*

Demographic Variables	Category	Frequency	Percent	Valid Percent	Cumulative Percent
Division	Bahawalpur	50	33.3	33.3	33.3
	Dera Ghazi Khan	50	33.3	33.3	66.7
	Multan	50	33.3	33.3	100
	Total	150	100	100	
Role in School	Teacher	75	50	50	50
	Caregiver	75	50	50	100
	Total	150	100	100	
Gender	Male	75	50	50	50
	Female	75	50	50	100
	Total	150	100	100	
Age	20 to 28 Years	49	32.7	32.7	32.7
	29 to 36 Years	33	22	22	54.7
	37 to 44 Years	55	36.7	36.7	91.3
	45 to 52 Years	6	4	4	95.3
	More than 52 Years	7	4.7	4.7	100
	Total	150	100	100	
Academic Qualification	SSC	18	12	12	12
	HSSC	49	32.7	32.7	44.7
	Graduation	14	9.3	9.3	54
	Master	59	39.3	39.3	93.3
	M.Phil./Ph.D.	10	6.7	6.7	100
	Total	150	100	100	
Professional Qualification	Nothing	72	48	48	48
	PTC	12	8	8	56
	B.Ed.	63	42	42	98
	M.Ed.	3	2	2	100
	Total	150	100	100	
Teaching Experience	No Experience	8	5.3	5.3	5.3
	Less than 3 Years	57	38	38	43.3
	3 to 6 Years	10	6.7	6.7	50
	7 to 9 Years	9	6	6	56
	More than 9 Years	66	44	44	100
	Total	150	100	100	
Number of ECCE Trainings	Nothing	34	22.7	22.7	22.7
	1	76	50.7	50.7	73.3
	2	40	26.7	26.7	100
	Total	150	100	100	

`

Demographic Profile of the Respondents

The sample was fairly balanced among the three divisions of South Punjab that is, one third of the sample represented Bahawalpur, Dera Ghazi Khan, and Multan. This was an equal distribution that guaranteed equal geographical representation of ECCE practitioners within the region. The respondents were made of equal gender of ECCE teachers and caregivers, and this allowed a fair comparison of the perception on both groups. There was also even distribution in terms of gender, with the males and females being one to one. This equilibrium enabled the gender-based views to be viewed impartially.

The majority of the respondents fell into the age bracket of 3744 years (36.7%), then it is younger practitioners aged 2028 years (32.7%). It means that in the ECCE classrooms of the public schools, the management of the classroom is mainly controlled by the middle-aged people with a lesser number of senior aged staff members.

The percentage of people who had attained Masters was large (39.3%), and 32.7% had intermediate levels. It had only 6.7 percent M.Phil/PhD qualifications. This is an indicator that there was a low level of specialization of ECCE at a higher professional level despite the relative level of satisfaction in general academic qualifications.

Almost half of the respondents (48%) had no teaching qualification professionally, and of those who had PTC certification, only 8% had ECCE-specific qualification. Even though 42% had B.Ed. degrees, the absence of ECCE-specific qualifications demonstrates a significant skills gap among ECCE employees in the state schools.

The most significant percentage (44) consisted of those who had over 9 years of teaching experience, which means that staff in the ECCE in schools are experienced teachers, even though they may not be trained to work in ECCE. Meanwhile, 38% were professionals of the early career that experienced less than three years of ECCE.

Half (50.3) of the respondents had attended only one ECCE training and 22.8% attained no ECCE related training. There are considerable lapses in professional development as demonstrated by the limited exposure to structured ECCE training.

`

Table 2. *Descriptive Statistics of statements (n= 150)*

Variables	Mean	Std. Deviation
Large class sizes limit my ability to give individual attention to each child.	4.3867	1.06681
Children's disruptive behavior makes classroom management difficult.	4.0600	.83730
Lack of teaching assistants increases my workload.	4.2733	1.15216
The ECCE curriculum is not sufficiently play-based or child-centered.	2.9667	.62837
Teaching and learning materials for ECCE are outdated or insufficient.	2.2133	.80757
I have not received adequate training to use modern teaching tools or technology.	4.4867	1.10967
ECCE classrooms lack child-friendly furniture and learning spaces.	3.9200	.87868
The school environment lacks proper hygiene, ventilation, and sanitation.	3.8133	.92965
Safety measures for young children are inadequate in my school.	3.9533	1.01225
There are not enough trained ECCE teachers in this school or district.	4.1867	1.05160
Caregivers and support staff lack formal ECCE training.	4.1667	1.22839
Low salary and job insecurity reduce motivation among ECCE staff.	4.3000	1.02813
Administrative support for ECCE activities is insufficient.	4.3133	1.01092
Professional training and refresher courses are necessary to improve ECCE.	4.3533	1.02412
Increased parental and community involvement would strengthen ECCE outcomes.	4.4733	1.00132
Government should improve funding, infrastructure, and policy implementation for ECCE.	4.1733	1.10973
Trained Teachers should be appointed in ECCE Class with Trained Caregivers	4.6467	.63602

Descriptive Statistics of the Study Variables

Classroom Management Challenges

The respondents were in high agreement that classroom management problems were common. The most serious issue was the big number of students in the classroom which restricted personal attention (M = 4.39), the lack of teaching assistants (M = 4.27) and disruptive behaviour of students (M = 4.06). This implies that the classroom organization and personnel are significant limitations of ECCE provision.

Teaching Resources & Curriculum Challenges

The suitability of the curriculum was perceived in both ways. The respondents were ambivalent in the question of whether the ECCE curriculum was child-centred (M = 2.97), and they disagreed that they had adequate teaching resources (M = 2.21). There was a high opinion consensus on the absence of training in the use of modern instructional tools and technology (M = 4.49) which indicates a lack of professional skills.

Infrastructure and Learning Environment Problems

The respondents also affirmed that there was a lack of child-friendly spaces and furniture in ECCE classrooms (M = 3.92), hygiene and sanitation (M = 3.81). Young children were also perceived to have inadequate safety measures (M = 3.95), which was an indication of physical learning environments.

Administrative & Professional Support Challenges

The mean scores were high in the shortage of trained ECCE teachers (M = 4.19) and inadequately trained caregivers (M = 4.17). Insufficient professional support and workforce

`

motivation systemic gaps are manifested in low salaries and job insecurity (M = 4.30), and lack of administrative support (M = 4.31).

Improvement Strategies (Perceived Needs)

The respondents gave strong support on some of the improvement strategies. Appointment of trained teachers and trained caregivers in ECCE classrooms was the most supported (M = 4.65). Greater parental/community participation (M = 4.47), professional training (M = 4.35) and greater government funding and policy implementation (M = 4.17) were also popular.

Okay, I will present all t-test results in a concise manner, significant and non-significant, in a clean journal format.

Table 3. *Group Statistics of t-test*

Group Statistics					
	Role in School	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Classroom Management Challenges	Teacher	75	12.5067	2.20793	.25495
	Caregiver	75	12.9333	1.48263	.17120
Teaching Resources & Curriculum Challenges	Teacher	75	9.6933	1.26249	.14578
	Caregiver	75	9.6400	1.56516	.18073
Infrastructure & Learning Environment Challenges	Teacher	75	11.7867	1.48227	.17116
	Caregiver	75	11.5867	1.76370	.20365
Administrative & Professional Support Challenges	Teacher	75	16.5333	2.27996	.26327
	Caregiver	75	17.4000	1.97279	.22780
Improvement Strategies (Perception)	Teacher	75	17.5867	2.04737	.23641
	Caregiver	75	17.7067	1.92265	.22201

`

Table 4: Independent Samples Test (t-Test) (Levene's Test for Equality of Variances)

Independent Samples Test										
				t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Classroom Management Challenges	Equal variances assumed	8.892	.003	-1.389	148	.167	-.42667	.30710	-1.03353	.18020
	Equal variances not assumed			-1.389	129.459	.167	-.42667	.30710	-1.03425	.18091
Teaching Resources & Curriculum Challenges	Equal variances assumed	.632	.428	.230	148	.819	.05333	.23220	-.40551	.51218
	Equal variances not assumed			.230	141.654	.819	.05333	.23220	-.40568	.51235
Infrastructure & Learning Environment Challenges	Equal variances assumed	.504	.479	.752	148	.453	.20000	.26603	-.32570	.72570
	Equal variances not assumed			.752	143.742	.453	.20000	.26603	-.32583	.72583
Administrative & Professional Support Challenges	Equal variances assumed	2.783	.097	-2.489	148	.014	-.86667	.34814	-1.55463	-.17870
	Equal variances not assumed			-2.489	145.005	.014	-.86667	.34814	-1.55475	-.17858
Improvement Strategies (Perception)	Equal variances assumed	.262	.609	-.370	148	.712	-.12000	.32431	-.76088	.52088
	Equal variances not assumed			-.370	147.419	.712	-.12000	.32431	-.76090	.52090

`

Results of Independent Samples t-Test

Independent samples t-test was used to determine the difference between the perception of ECCE teachers and caregivers in the five fundamental areas of the research. The findings have been summarised as follows.

Table 3: Teachers and Caregivers Comparison on ECCE Challenges and Improvement Needs.

Challenges of Classroom Management

Caregivers (M = 12.93) and teachers (M = 12.51) did not differ in their perceptions of the issues of classroom management. The two groups did not differ statistically, t(148) = -1.39, p =.167. This implies that both caregivers and teachers are equally challenged by such issues as the size of the classroom, student behaviour, and shortage of support staff.

Instructional materials and Curricula Challenges

Teachers (M = 9.69) and caregivers (M = 9.64) did not differ significantly on issues of curriculum and teaching resources, t (148) =.230, p =.819. The two groups also concurred that there was inadequate resource and that there was underutilization of modern instructional tools.

Infrastructure & Learning Environment Challenges

Teacher perceptions (M = 11.79) and caregiver perceptions (M = 11.59) did not show any significant difference, t(148) =.752, p =.453. This indicates that the two groups noted common failures in the classroom safety, sanitation and child friendly learning conditions.

Administrative and Professional Support Challenges

There was statistically significant difference between caregivers and teachers, t(148) = -2.49, p =.014. The caregivers (M = 17.40) indicated greater administrative and professional support difficulty as compared to teachers (M = 16.53). This means that the caregivers were more influenced by low wages, absence of administrative assistance and the shortage of ECCE-trained personnel.

Improvement Strategies (Perception)

There was no significant difference of teachers (M = 17.59) and caregivers (M = 17.71) in terms of improvement strategies, t(148) = -.370, p =.712. The need to have professional development, involvement of parents, and better government support was strongly agreed in both groups.

Summary of t-Test Findings

There was only one area of statistically significant difference:

✓ Caregivers expressed more administrative and professional support issues as compared to teachers.

Classroom management, curriculum/resource, infrastructure and improvement strategies did not indicate any significant differences, with shared perceptions across rol

Table 5. *ANOVA table of regression*

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.354	1	1.354	.344	.559[b]
	Residual	582.920	148	3.939		
	Total	584.273	149			

a. Dependent Variable: Improvement Strategies (Perception)

b. Predictors: (Constant), Challenges

`

Table 6. *Coefficients table of regression analysis*

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.370	2.184		7.497	.000
	Challenges	.025	.043	.048	.586	.559

a. Dependent Variable: Improvement Strategies (Perception)

Regression Analysis

Simple linear regression was used to test the hypothesis whether the total ECCE challenges were the predictors of the perceptions of the respondents concerning the improvement strategies.

Table 5: Regression Report -The effect of ECCE Challenges on Improvement strategies.

The regression model has shown that ECCE challenges were not a meaningful predictor of perceived improvement strategies, F (1,148) = 0.344, p = .559. The model only accounted less than 1% of the variance of improvement strategies (R 2 =.002), which shows that the two variables are not strongly related.

Table 6: Coefficient Results

The ECCE challenges regression coefficient was positive and not significant (=.048, p =.559). The relationship between the challenges and support of improvement strategies was found to be statistically insignificant, though the direction of the coefficient indicates that increased challenges were linked to slightly greater support of the improvement strategies. This means that despite the degree of the challenges faced, the respondents were always in support of the improvement of ECCE.

Summary of Regression Results

There was no significant predictive correlation between ECCE challenges and improvement strategies.

The encouragement of improvement strategies was also strong and constant regardless of the magnitude of the challenges encountered.

This implies that the need of ECCE improvement exists among practitioners, regardless of the extent to which the practitioners are perceiving the challenges.

Table 7. *Qualitative Thematic Analysis of 5 Open-Ended Questions*

What challenges do you face while teaching or caregiving in ECCE classrooms?	Frequency	Percent
Caregivers are untrained and struggle to manage academic tasks	15	10
High workload and additional school duties reduce ECCE focus	15	10
Inadequate classroom space and poor seating arrangements for young children	15	10
Insufficient professional development opportunities for teachers	15	10
Lack of age-appropriate learning material and play-based resources	15	10
Lack of resources, teacher shortages, low salaries, and limited learning materials	15	10
Limited support from administration for ECCE activities	15	10
No separate ECCE classroom; combined classes create disturbance	15	10
Parents do not cooperate and do not support ECCE activities	15	10
Too many students in one class which affects attention and care	15	10
Total	150	100
Who does teach the ECCE learners more in class and Why?	**Frequency**	**Percent**

`

Both share responsibility but caregivers focus more on routine tasks	15	10
Caregiver teaches more as teacher is busy with paperwork and meetings	15	10
Caregiver teaches more due to teacher engaging in upper-class responsibilities	15	10
Caregivers handle most ECCE tasks due to lack of trained ECCE teachers	15	10
Caregivers teach more due to teacher shortage or teachers handling admin work	15	10
Equal effort but caregivers spend more time with children	15	10
Teacher teaches core subjects, caregiver assists in activities	15	10
Teacher teaches more because caregiver lacks confidence in teaching	15	10
Teachers prefer administrative tasks so caregivers manage ECCE class	15	10
Teachers teach more because they have better subject knowledge	15	10
Total	150	100
What do you think about online trainings?	**Frequency**	**Percent**
Face-to-face training is more impactful for ECCE learning	15	10
Not everyone has smartphones or digital skills to attend online sessions	15	10
Online sessions are difficult due to poor internet in rural areas	15	10
Online training is beneficial if supported with follow-up practice	15	10
Online training is useful but needs interactive sessions and feedback	15	10
Online training saves time but lacks practical demonstration	15	10
Online trainings are ineffective and participants lose interest	15	10
Online trainings feel like formality, not skill-enhancing	15	10
Recorded trainings are not helpful; live sessions would be better	15	10
Teachers need digital literacy to benefit from online training	15	10
Total	150	100
How does the school environment influence your ECCE teaching?	**Frequency**	**Percent**
A supportive environment improves children's learning and teacher motivation	15	10
Availability of ECCE materials makes environment more engaging	15	10
Environment needs improvement to reflect ECCE standards	15	10
Friendly environment helps children settle and learn better	15	10
Lack of cleanliness and hygiene impacts children's health and learning	15	10
Noise, overcrowding, and lack of ECCE corners affect teaching quality	15	10
Positive environment enhances creativity and playful learning	15	10
School administration focuses on formalities rather than ECCE quality	15	10
School environment is not child-friendly and lacks ECCE-focused spaces	15	10
Teachers receive little encouragement for ECCE activities	15	10
Total	150	100
What support or training do you think is needed to improve ECCE?	**Frequency**	**Percent**
Appoint trained ECCE teachers and caregivers	15	10
Digital training for teachers to use technology in ECCE	15	10
Parents awareness sessions to support ECCE learning at home	15	10
Practical ECCE training should be arranged regularly	15	10
Provide classroom resources and age-appropriate learning materials	15	10
Provide financial support and incentives for ECCE staff	15	10
Reduce workload so teachers can focus on ECCE	15	10
Regular monitoring and feedback to improve ECCE practices	15	10
Training on classroom management for young children	15	10
Workshops on child psychology and play-based learning	15	10

`

Qualitative Results

Instructional and Classroom Problems

The lack of trained personnel, large classes, and poor learning resources were raised multiple times as the reasons why managing ECCE classrooms proved to be a challenging task as per the respondents. Most of them reported that caregivers were inexperienced and had difficulties with academic activities, and teachers were overloaded with extra school responsibilities to diminish their attention on ECCE. Poor seating space, inadequate classroom space and the lack of play-based materials were also among the key concerns.

Sharing of roles between the caregivers and the teachers

Most of the respondents reported that majority of ECCE tasks weredelegated to the caregivers as the teachers tended to be involved in administration, upper grades or paper work. The rest of them described that the caregivers were leading as there were teacher shortages or the teachers were not ECCE trained although other reported mutual responsibility. There are also cases where teachers claimed to teach the core subjects with the help of the caregivers in the mundane activities.

Protocols on Online Training

The respondents were contradictory regarding online ECCE training. Although some considered online sessions convenient, most of them believed face-to-face training to be more effective since ECCE was practical. The perceived usefulness of virtual training had been diminished by such barriers as low digital skills, insufficient access to the internet in rural areas, and the lack of interactive engagement in online courses. Realism of online training has been identified by the respondents, which involves practical training and subsequent support following the online training.

How School Environment can influence ECCE

They found that the school experience was a very strong indicator of the ECCE quality. It was observed that child friendly atmosphere eased the learning process, motivation and classroom activities. Contrarily, classes crowding, poor hygienic factors, noise, and lack of ECCE special corner and lack of administrative concern to ECCE negatively affected teaching. The respondents believed that school administrators were laid off doing formalities at the cost of improving ECCE environments.

Capacity-Building and Support Requirement

The respondents unanimously emphasized the need of the constant professional development and framework maintenance. The appointment of trained ECCE teachers and caregivers and the training of digital literacy, applied and frequent ECCE training, child-related psychology and play-based learning workshops were the priority recommendations. Other solutions, parental conscience, staff financial rewards, reduced staff load, and continuous supervision and feedback were also summoned to better the ECCE standards.

Overall Insight:

The qualitative findings supported the quantitative ones demonstrating that the issues of ECCE are systemic and widespread, practitioners are strongly committed to the necessity of systematic training, improved resources and favorable school environment as factors to enhance the quality of ECCE.

Discussion

The study focused on the systemic problems that affect the quality of ECCE of the South Punjab public schools and how the practitioners perceived the necessity to better the situation. The quantitative and qualitative outcomes combine to form a logical image of the structural shortcomings in classroom management, access to resources, learning environment, and working with specialists - consistent with the tendencies of the ECCE research on the international level.

The results have shown that, teachers and caregivers have general agreement on the level of

`

challenge of classroom management of the type high classroom sizes, disruptive behaviours, and unsupported classroom staff. These pressures also are conditioned at the international level because the insufficiency of the workforce and the workload of teachers undermine the quality of the process of providing ECCE (Mahadew, 2024; Stein et al., 2022). Similar to the outcomes of the low- and middle-income environment, the practitioners in this study reported that staffing and physical space are limiting child-centred, play-based learning which aligns with the conclusions of the other researchers working in different locations that resource scarcity, particularly structural one, disables the successful implementation of ECCE (Carbonell et al., 2024; Kaur, 2019).

The results also bring out the issues with the curriculum and teaching resources. Although the perception of the child-centred character of the curriculum was neutral, the respondents were highly unanimous in stating the fact that they were not trained to be using the modern instructional tools. This is indicative of the world experience which means that curriculum reforms do not come into being but tend to be more of a dream without teachers being ready, continuously professional development, and possessing resources to enact the reforms (Singh and Venugopal, 2025; Herut and Setlhako, 2024). The qualitative findings also supported the notion that untrained caregivers are an important component of the instructional load, which is one of the expressions of the uncrewed policy emphasis on professionalism and the fact of incompetent ECCE employees (Irvine et al., 2023; Oke et al., 2021).

The question of inadequate infrastructure became an issue of particular concern on the basis of hygiene, sanitation, classroom space, and safety, which are closely interdependent with open socioeconomic defeat through unequal ECCE in resource-constrained environments (Pillar, 2023). As can be shown by the qualitative data, the overcrowded classroom and the unfriendliness of the children towards them affect the learning of children as well as the motivation of the teachers. It fits into a body of research alleging that quality will never be achieved by merely expanding the access but the bottlenecks of the system at the level of facilities, materials, and administrative capacity should be enhanced (Raikes et al., 2023; Ghosh, 2023).

Administrative and professional support was the only substantive dissimilarity in the teachers and caregivers that implied that the caregivers had more worries regarding workload, deficiency of recognition, low remunerations, and the low level of services within the institution. It is reflective of the broader knowledge in the world regarding the reality that ECCE caregivers are basically the group with low levels of professional identification, status, and remuneration, which discourages motivation and retention (Oke et al., 2021; Irvine et al., 2023). Research results also show that supportive leadership practices and governance are the means of boosting the morale of the workforce and proceed with the quality improvement (Phillips, 2025; Gibbs, 2021). The managerial indifference and absence of professional development opportunities which indicates the absence of leadership engagement are also evident in the qualitative data in this study.

It was noted that despite the same, the teachers and the caregivers were highly inclined towards improvement measures, such as professional training, parental participation, additional funding and schooling ECCE teachers and caregivers. These are the recommendations of the best practice judged by evidence of the current situation in the international context that concentrate on the professional development that is never-ending, the cooperation with families, and the systemic support of guidance at the helm as the primary factors and drivers of quality ECCE (Egert et al., 2018; Hatzigianni et al., 2023; Buckley et al., 2020). Interestingly, the regression analysis showed that the demands to improve were universal, and they did not rely on the level of challenges facing them that meant that there was

`

common perception of need to institute urgent change in the ECCE.

Together, the findings demonstrate that ECCE quality problems in South Punjab are not a localized problem and are more of systemic constraints that are interconnected as found in other low- and middle-income environments. They require more than the resources or piecemeal training; these require a long-run policy commitment, investment, governance reforms, and leadership capacity building that would propagate the quality improvement at scale which resonates with recommendations of global evaluation and policy research (Raikes, 2023; Thomson, 2025).

Conclusion

This study demonstrates that ECCE provision in South Punjab in the public schools has serious system-wide problems that affect its quality provision. The caregivers and teachers could identify the endemic barriers associated with managing classrooms, curriculum implementation, learning environments and administrative support. A lack of qualified ECCE staff, lack of professional training, the absence of good facilities, and ineffective instruction materials came to be the primary constraining factors discouraging child-centred and play-based learning. Despite the fact that there was a single aspect where the difference between teachers and caregivers was outstanding, that is, the administrative and professional support, overall outcomes suggest that teachers and caregivers have a common sense of the significance of the necessary changes of the system being dismal and urgent. The qualitative data was also helpful in proving that the barriers to successful ECCE implementation are the absence of training of caregivers, the insufficiency of the institutional support, overcrowded classes, and the lack of parental engagement.

These restrictions result in a strong and stable support of a collection of improvement strategies between the practitioners, which is indicative of an overall readiness to change. The findings can be related to the research conducted on the same field in other countries indicating that quality ECCE requires the investment into the workforce development, resources enhancement, and favorable governance systems. The results of the research indicate that without the systematic and thoughtful changes in the system-level, the improvement of ECCE in the area will remain unattainable but a chain of interventions.

Recommendations

On the basis of the results, the following suggestions are proposed to inform the policy and practice: Introduce and implement trained ECCE instructors, and provide voluntary and ongoing professionalization of teachers and caregivers with the emphasis of child-centred pedagogy, classroom discipline, and applying new instructional resources.

Increase classroom environment, hygiene, safety and access to developmentally appropriate learning and play materials in order to support developmentally appropriate practice. Introduce supportive supervision, reduce the workload of the staff on non-ECCE activities and provide non-financial and financial incentives to boost motivation, job satisfaction, and retention of employees. Offer awareness campaigns and establish better functioning home-school relations to maximize the learning outside the classroom in ECCE.

The system-level investment involves policy-level activities that ultimately convert into policy implementation at both the state and local levels and Policy and System-Level Investment: To establish quality improvement on the long run, invest in particular ECCE funding, best operations, and effective quality implementation.

Ethical Considerations

Ethical procedures were upheld during the research process. Participation was voluntary and informed consent was taken among all the respondents. The identities and answers of the

`

participants were kept anonymously and confidentially and no personal identifiers were revealed. The research was conducted following ethical standards of educational research in the areas of respect, privacy and responsible data management.

Future Research Direction and Limitations

This research has certain limitations and they should be considered by which the findings can be interpreted. The geographical focus of the study was also restricted to the chosen schools of South Punjab within three of those divisions, which may represent the limitation of the generalizability of the obtained results to other regions and ECCE implementation in other schools (both regarding privacy and community based). Secondly, the sample did not consider the opinions of the school administrators, parents and policymakers, who also have a role to play during the implementation of ECCE. Involving other parties to consider other groups of stakeholders may help in having a better perspective of systematic issues. Third, the study was premised on self-reported data that can be biased or may have been social desirability. In addition, the predictive relationship between the regression model was having a weak affinity, which implied that other factors that were not investigated could have an impact on the improvement strategies and had to be researched further.

It requires future research to be spread to different contexts, including rural, urban, private, NGO-based, and informal ECCE centres, to present a broader picture of the systemic issues in different governance and resource environments. Inter-provincial or intercountry comparative study may also be helpful in deciding both context-specific and universal predicaments. Besides, a mixed-method (such as classroom observation, policy analysis, longitudinal designs) would also provide a more extensive amount of evidence regarding the influence that systemic reforms and interventions in terms of professional development have on ECCE practice over time. It has been proposed that parents, school leaders, and education departments should be studied involving multi-level considerations to collectively formulate practical short-term and medium-term policy and practice solutions on enhancing sustainable ECCE quality.

Declaration of Conflicting Interest

The author declared no potential conflicts of interest with respect to research, authorship, and or publication of this article.

Funding Statement

I did not receive any funding for this research project.

`

References

Behera, C., & Acharya, A. K. (2024a). Early childhood care and education: A systematic literature review in Indian context.

Blum, S., & Dobrotić, S. (2023). Early childhood education and care in times of COVID-19. Handbook of Care Policies. Cheltenham, Edward Elgar.

Britto, P. R., Yoshikawa, H., & Boller, K. (2011). Quality of early childhood development programs and policies in global contexts: Rationale for investment, conceptual framework and implications for equity. Social Policy Report, 25(2), 1–23

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Harvard university press.

Buckley, L., Martin, S., & Curtin, M. (2020). A multidisciplinary community-level approach to improving quality in early years settings. SAGE Publishing.

Carbonell, C., Adegbulugbe, A. A., Cheung, W. Y., & Ruff, P. (2024). Barriers and challenges to implementing a quality improvement program: Political and administrative challenges. JCO Global Oncology.

Egert, F., Fukkink, R., & Eckhardt, A. G. (2018). Impact of in-service professional development programs for early childhood teachers on quality ratings and child outcomes: A meta-analysis. Early Childhood Education Journal.

Ghosh, S. (2023). Does the early childhood education and care in India contribute to children's skill development? Wiley.

Gibbs, L. (2021). Leading through complexity in early childhood education and care. Australasian Journal of Early Childhood.

Hatzigianni, M., Stephenson, T., Harrison, L., Waniganayake, M., Li, H., Barblett, L., Hadley, F., Andrews, R., Davis, B., & Irvine, S. (2023). The role of digital technologies in supporting quality improvement in Australian early childhood education and care settings. Springer Nature.

Herut, A. H., & Setlhako, M. A. (2024). A review of policy frameworks for advancing pedagogical competence of preschool teachers in Ethiopia. The Partnership.

Irvine, S., Lunn, J. O., Sumsion, J., Jansen, E., Sullivan, V., & Thorpe, K. (2023). Professionalization and professionalism: Quality improvement in early childhood education and care (ECEC). Early Childhood Education Journal.

Kaur, A. (2019). Quality early childhood care and education in India.

Khan, N., Bhatti, M. A., Hussain, K. S., & Bano, S. S. (2017). Early childhood education in Pakistan: A research study. Academy of Educational Planning and Management, Ministry of Federal Education and Professional Training.Mahadew, A. (2024). Challenges in early childhood care and education in impoverished rural communities in KwaZulu-Natal Province, South Africa. Interdisciplinary Journal of Rural and Community Studies.

OECD (2021), Starting Strong VI: Supporting Meaningful Interactions in Early Childhood Education and Care, Starting Strong, OECD Publishing, Paris, https://doi.org/10.1787/f47a06ae-en.

Oke, A., Butler, J. E., & O'Neill, C. (2021). Who would bother getting a degree when you would be on the exact same pay and conditions...? Professionalism and the problem with qualifications in early childhood education and care: An Irish perspective. Early Childhood Education Journal.

Phillips, A. (2025). Supporting early childhood education and care workforce and service quality through governance practices. Education Sciences.

`

Pillar, L. J., & Haricharan, S. J. (2023). Early childhood care and education in Botswana: Implications for access and quality. University of Johannesburg.

Raikes, A. (2023). Using early childhood data and measurement to leverage change: Are we making progress? Journal of Research in Childhood Education.

Raikes, A., Rao, N., Yoshikawa, H., Cohrssen, C., Behrman, J. R., Cappa, C., Devercelli, A., Boo, F. L., McCoy, D., & Richter, L. (2023). Global tracking of access and quality in early childhood care and education. International Journal of Child Care and Education Policy.

Rashid, M., Fatima, M., Azmat, M., & Mahmood, T. (2025). Early Childhood Education in Punjab, Pakistan: Navigating Challenges and Exploring Solutions–A Narrative Review. The Critical Review of Social Sciences Studies, 3(1), 2214-2228.

Samuel Hall (2023), Review of Early Childhood Education (ECE) Models in Pakistan. Commissioned by Samuel Hall.

Siddique, S., & Aurangzeb, W. (2024). Need and Provision of Early Childhood Education (ECCE) in the National Educational Policies of Pakistan. Journal of Early Childhood Care and Education, 8(2).

Singh, A., & Venugopal, K. (2025). Thematic approach in early childhood education: A critical examination of its theoretical foundations, pedagogical implementation, and future directions. RESEARCH REVIEW International Journal of Multidisciplinary.

Slot, P. (2018), "Structural characteristics and process quality in early childhood education and care: A literature review", OECD Education Working Papers, No. 176, OECD Publishing, Paris, https://doi.org/10.1787/edaf3793-en.

Stein, R., Garay, M., & Nguyen, A. V. (2022). It matters: Early childhood mental health, educator stress, and burnout. Early Childhood Education Journal.

Swati, S., Bibi, T., & Hussain, K. S. (2023). Critical analysis of early childhood education in Pakistan. Journal of Contemporary Trends and Issues in Education, 2(3), 96-115.

Thomson, E. (2025). Wicked problems in early childhood education: Navigating workforce, equity and trust. Contemporary Issues in Early Childhood.

Tilbe, Y. T., & Gai, X. (2022). Teacher-child interactions in early childhood education and its effects on social and language development. Early Child Development and Care, 192(5), 761-774.

UNESCO. (2021). Right from the start: build inclusive societies through inclusive early childhood education. United Nations Educational, Scientific and Cultural Organization. https://unesdoc.unesco.org/ark:/48223/pf0000378078

UNICEF. (2019). A world ready to learn: Prioritizing early childhood education. United Nations Children's Fund.

`

Appendix

Exploring Systemic Challenges and Quality Improvement Needs in Early Childhood Care and Education (ECCE)

Research Tool

Section A: Demographic Information			
Division i. Bahawalpur ii. Dera Ghazi Khan iii. Multan	**Role in School** i. Teacher ii. Caregiver	**Gender** i. Male ii. Female iii. Prefer not to say	**Age** i. 20 to 28 Years ii. 29 to 36 Years iii. 37 to 44 Years iv. 45 to 52 Years v. More than 52
Academic Qualification i. SSC ii. HSSC iii. Graduation iv. Master v. M.Phil./Ph.D.	**Professional Qualification** i. Nothing ii. PTC iii. ECCE iv. B.Ed. v. M.Ed.	**Teaching Experience** i. No Experience ii. Less than 3 Years iii. 3 to 6 Years iv. 7 to 9 Years v. More than 9 Years	**Number of ECCE Trainings** i. Nothing ii. 1 iii. 2 iv. 3 v. More than 3

Please respond to each statement by selecting the option that best reflects your level of agreement.

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Sr.No.	Statements	1	2	3	4	5
Section B	**Classroom Management Challenges**	**SD**	**D**	**N**	**A**	**SA**
B1	Large class sizes limit my ability to give individual attention to each child.	**SD**	**D**	**N**	**A**	**SA**
B2	Children's disruptive behavior makes classroom management difficult.	**SD**	**D**	**N**	**A**	**SA**
B3	Lack of teaching assistants increases my workload.	**SD**	**D**	**N**	**A**	**SA**
Section C	**Teaching Resources & Curriculum Challenges**	**SD**	**D**	**N**	**A**	**SA**
C4	The ECCE curriculum is not sufficiently play-based or child-centered.	**SD**	**D**	**N**	**A**	**SA**
C5	Teaching and learning materials for ECCE are outdated or insufficient.	**SD**	**D**	**N**	**A**	**SA**
C6	I have not received adequate training to use modern teaching tools or technology.	**SD**	**D**	**N**	**A**	**SA**
Section D	**Infrastructure & Learning Environment Challenges**	**SD**	**D**	**N**	**A**	**SA**
D7	ECCE classrooms lack child-friendly furniture and learning spaces.	**SD**	**D**	**N**	**A**	**SA**
D8	The school environment lacks proper hygiene, ventilation, and sanitation.	**SD**	**D**	**N**	**A**	**SA**
D9	Safety measures for young children are inadequate in my school.	**SD**	**D**	**N**	**A**	**SA**
Section E	**Administrative & Professional Support Challenges**	**SD**	**D**	**N**	**A**	**SA**

`

E10	There are not enough trained ECCE teachers in this school or district.	**SD**	**D**	**N**	**A**	**SA**
E11	Caregivers and support staff lack formal ECCE training.	**SD**	**D**	**N**	**A**	**SA**
E12	Low salary and job insecurity reduce motivation among ECCE staff.	**SD**	**D**	**N**	**A**	**SA**
E13	Administrative support for ECCE activities is insufficient.	**SD**	**D**	**N**	**A**	**SA**
Section F	**Improvement Strategies (Perception)**	**SD**	**D**	**N**	**A**	**SA**
F14	Professional training and refresher courses are necessary to improve ECCE.	**SD**	**D**	**N**	**A**	**SA**
F15	Increased parental and community involvement would strengthen ECCE outcomes.	**SD**	**D**	**N**	**A**	**SA**
F16	Government should improve funding, infrastructure, and policy implementation for ECCE.	**SD**	**D**	**N**	**A**	**SA**
F17	Trained Teachers should be appointed in ECCE Class with Trained Caregivers	**SD**	**D**	**N**	**A**	**SA**
Qualitative Interview Guide (Short)						
QI1	What challenges do you face while teaching or caregiving in ECCE classrooms?					
QI2	Who does teach the ECCE learners more in class and Why?					
QI3	What do you think about online trainings?					
QI4	How does the school environment influence your ECCE teaching?					
QI5	What support or training do you think is needed to improve ECCE?					

`