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Minimum Standard Theory to Practice in ECD Centers/ Preprimary School

Sabita Thapa
Padma Kanya Multiple Campus, TU
thapasabita9601@gmail.com

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Abstract
Early childhood represents a critical phase in a child's physical, mental, social, and emotional development. The first five years shape logical thinking, interpersonal skills, and self-management, making the role of caregivers, educators, and parents essential in creating opportunities for exploration and meaningful learning. Recognizing this, the Ministry of Education (MOE) in Nepal has developed a national ECD curriculum and minimum standards for ECD centers. This study examined 20 schools and 50 ECD/preschool classrooms in Gokarneshwor Municipality through direct observation, interviews, and key informant discussions, assessing their practices against MOE standards and the extent to which they meet children's developmental needs.
Findings reveal that 80% of educators are trained, with most being middle-aged women with children. Classrooms are generally child-friendly, with 85% furnished and decorated and 90% having outdoor spaces, though materials remain scarce. Strengths include sanitation (81.8%) and administration (80.6%), but only 17.7% of learning centers and 29.8% of language materials were available, with an overall 29% average provision of required resources. Both public and private ECD centers face space and furnishing challenges: government schools often have large but unfurnished rooms, while private schools operate in small residential buildings, limiting corners and activity areas. Teachers reported multiple challenges, including overcrowding, mixed-age classes, lack of assistant teachers, low pay, limited training, homework pressure, and insufficient play materials. Excessive classroom decoration occupies time but does not necessarily enhance learning. Unregulated preschools and inconsistent application of minimum standards exacerbate these issues.
The study concludes that while infrastructure and sanitation needs are partly addressed, pedagogical enrichment, space management, parental awareness, and policy clarity remain urgent. Stronger integration of public and private preschools under MOE, regular monitoring, teacher support, and parental engagement are essential to ensure holistic child development and strengthen Nepal's ECD sector.

Key Words: Ministry of Education, Minimum Standard, Practice, ECD Centers/ Preprimary School

Introduction

Early childhood, defined as the period from conception to eight years of age, is widely recognized as a critical phase of human development. During this period, children experience rapid growth across multiple domains, including physical, cognitive, linguistic, and socio-emotional development. These early years lay the foundation for lifelong learning, behavior, and overall well-being. Early Childhood Development (ECD) is therefore understood as a holistic

process that extends beyond formal education to include proper nutrition, health care, protection, and responsive caregiving (World Bank, 2023; UNESCO, 2023; UNICEF, 2023).

Empirical research highlights that early childhood is a sensitive window for the acquisition of fundamental skills, such as emotional regulation, social interaction, communication, and conceptual understanding. Certain abilities, including emotional control, habitual responses, hearing, and vision, show minimal development after the age of three and are critical for later learning and life success (Nash, 1997; Early Years Study, 1999; Shonkoff, 2000). Failure to nurture these skills during early childhood can result in long-term deficits in academic performance, behavior, and psychosocial well-being, emphasizing the importance of creating supportive and enriched environments at home and in early learning centers.

In response to the recognized importance of ECD, the Government of Nepal has undertaken several initiatives. These include the revision of the ECD curriculum (2063–2077 B.S.) and the establishment of national minimum standards for pre-primary education (Ministry of Education, 2075–2077). These frameworks aim to provide child-friendly classrooms and ensure equitable access to quality early learning opportunities in both public and private centers. Well-prepared ECD settings offer safe spaces, age-appropriate materials, structured activities, and responsive facilitation, allowing children to explore, practice skills, and develop holistically while preparing for primary education.

Despite these policy initiatives, evidence suggests that gaps in implementation remain. UNICEF surveys in South East Asia indicate that only 57.7% of Nepalese children aged 36–59 months are developmentally on track, lower than in neighboring countries such as Pakistan (60.2%) and Bhutan (71.5%) (UNICEF, 2016). Although pre-primary school enrollment has increased in Nepal, children often continue to experience insufficient learning opportunities, particularly in private ECD centers where classroom resources and adherence to minimum standards vary widely. Consequently, many children face challenges in academic performance and developmental readiness, contributing to class repetition, early school dropout, and delayed skill acquisition.

Given these disparities, it is critical to evaluate how government minimum standards are applied in both public and private ECD centers. The present study addresses this gap by examining classroom management practices, the availability of learning materials, and the overall learning environment. The research identifies strengths and challenges in current ECD practices and proposes practical interventions to create child-friendly classrooms that support holistic development.

This investigation contributes to the broader understanding of ECD in Nepal by providing empirical evidence on the extent to which policy standards translate into classroom practice. By highlighting gaps and opportunities, the study aims to inform educators, policymakers, and stakeholders on strategies to enhance early learning environments, ensuring that children are equipped with foundational skills essential for academic success and lifelong development. Ultimately, supporting ECD is not only an investment in individual children but also a critical step toward societal development and human capital formation.

Literature Review

Review the literature and identify the current knowledge of research topic.The development of young children is profoundly influenced by the quality of their environments, the provision of well-resourced learning centers, and adherence to minimum standards, as emphasized by

classical theories and contemporary research. Cognitive development theorists such as Jean Piaget argue that children actively construct knowledge through hands-on interaction with their surroundings, progressing through developmental stages, with play, role-play, and problem-solving activities enhancing logical and abstract thinking[1]. Friedrich Froebel emphasized guided exploration through play, songs, gardening, and educational materials ("Froebel Gifts") to foster creativity and self-directed learning[2]. Social interaction theorists, including Lev Vygotsky and Albert Bandura, highlight culturally and socially responsive environments; Vygotsky's Zone of Proximal Development emphasizes learning with guidance to achieve independence[3], while Bandura demonstrated that observation and imitation of positive role models fosters cognitive and behavioral development[4]. Behavioral theorists, notably B.F. Skinner and J.B. Watson, illustrate how reinforcement and structured environments shape desirable behaviors[5]. Maria Montessori emphasized sensory-based, hands-on activities in carefully prepared classrooms that promote independence, concentration, and responsibility[6]. Collectively, these perspectives underscore that structured, stimulating, and child-centered environments are foundational for holistic early childhood development.

International frameworks provide practical applications of these theories. Finland's ECEC Curriculum (2022) emphasizes the intrinsic value of childhood, equity, diversity, and holistic development, with play-based learning, well-planned learning areas, accessible materials, and inclusive physical spaces designed to stimulate curiosity, emotions, and social skills[7]. The UK Early Years Foundation Stage (EYFS, 2023) prioritizes safe, well-equipped classrooms with structured areas for language, math, creativity, role-play, reading, and outdoor play, alongside mandatory safety standards and risk assessments, supporting both cognitive and socio-emotional development[8]. Singapore's Nurturing Early Learners (NEL, 2022) framework integrates values-based, social-emotional learning and child-centered teaching, with learning centers and teacher-guided interaction promoting independence and holistic growth[9].

Nepal's early childhood initiatives align with these principles while addressing local contexts. The ECD Curriculum 2077 BS emphasizes children's rights, holistic development, and safe learning environments, fostering physical, cognitive, social, emotional, and creative skills across multiple subject areas (language, pre-math, visual arts, environmental science, and social studies)[10]. The National Minimum Standard for ECD Centers (2067/2075) defines physical infrastructure, classroom layout, seating, learning centers, materials, hygiene, safety, teacher-child ratios, and administrative requirements as essential to quality education[11]. Research shows that well-prepared learning centers—including literacy, math/science, art, sensory, and role-play areas—promote active exploration, problem-solving, collaboration, and self-regulation[12]. Compliance with minimum standards ensures inclusive, safe, and stimulating environments, directly supporting holistic learning and child well-being. Nepal's alignment with **SDGs 1–6** through literacy programs, teacher development, safe infrastructure, nutrition support, and elimination of child labor underscores the strategic role of early learning in national development[13].

Findings from Recent Studies and Reports on Physical Environment and Minimum Standards in ECECResearch in Nepal and South Asia highlights the critical role of the physical environment in supporting early childhood development and the implementation of minimum standards. **Adhikari (2019)** identifies that many ECEC centers in Nepal face challenges such as insufficient classroom space, inadequate infrastructure, and a lack of age-appropriate learning materials, which hinder effective teaching and learning. Similarly, **Thapa (2015)** emphasizes that local perceptions of equity and quality often influence how physical environments are designed and

maintained, resulting in inconsistencies in the provision of safe and stimulating spaces for children.

The **Seto Gurans NCDS (2019)** report assesses ECD centers across 21 districts and finds gaps in sanitation, safety, outdoor play areas, and the availability of learning materials, despite some improvements in administrative management and teacher capacity. In comparison, **UNICEF Nepal (2020)** points out that many centers in the region still fall short of South Asian quality standards in terms of physical infrastructure, health, safety, and accessible learning resources, highlighting the need for regional alignment and capacity building.

Shrestha (2022) underscores that inadequate physical environment negatively impact holistic development, cognitive engagement, and learning outcomes, while **Barine and Nwogu (2021)** stress that integrating environmental safety, hygiene, and child-centered design into daily practices is essential for promoting quality early childhood education. Supporting these perspectives, **Kaul (2020)** provides a framework for ECD service quality standards, recommending well-organized learning centers, safe classroom designs, and sufficient play areas to ensure child safety, independence, and optimal developmental outcomes.

Collectively, these studies highlight that addressing gaps in infrastructure, learning materials, and safe physical environments is essential for translating minimum standard theory into practice and achieving high-quality, child-friendly early learning settings in Nepal and South Asia.

Field-based evidence highlights the importance of organizational efforts in realizing these standards. Save the Children Nepal constructs and renovates ECD centers, trains facilitators, implements literacy and numeracy programs, and engages parents. UNICEF Nepal provides resources for low-cost play, radio-based learning programs, indoor stimulation activities, and budgeting support. Seto Gurans NCDS advocates ECD policies, conducts training, and collaborates with UN agencies and the government. ECEC Innovation in Education and TSTEC Pvt. Ltd provide teacher training, consultation, and classroom management support, while Masters in Child Development, TU integrates practical training for students and parents with ECD practices. Project evaluations, such as the Early Literacy and Math (ELM) demonstration sites, have improved literacy and numeracy, trained teachers, engaged parents, and enhanced classroom management, while the Low Enrollment Study identified barriers to preschool participation, underscoring the need for accessible, child-friendly environments[14].

Overall, theoretical perspectives, international and national curricula, minimum standards, learning centers, and organizational initiatives converge on the principle that structured, child-friendly, and well-resourced environments, guided by standards and supported by trained facilitators, are critical for fostering holistic development, active engagement, and lifelong learning in early childhood. Implementing these strategies not only enhances individual growth but also contributes to equitable, sustainable development in early learning contexts knowing the gap and finding the current classroom status and child's resource access is another aspect to think through.

Statement of the Problem

Early childhood represents a critical period in a child's physical, cognitive, social, and emotional development. Proper care, support, and nurturing during this stage are essential to ensure holistic development. Despite policy frameworks and programs emphasizing early learning, recent data suggest that children in Nepal continue to face significant developmental challenges. A UNICEF

survey (2016) assessing children aged 36–59 months across literacy-numeracy, physical, social-emotional, and learning domains found that only 57.7% of Nepalese children were developmentally on track, lower than Pakistan (60.2%) and Bhutan (71.5%). Subsequent data (UNICEF, 2022) indicate modest progress, with 62% of children attending pre-primary education; however, learning opportunities remain limited, contributing to high repetition rates (2–30%) and school dropout rates of approximately 82% before completion of secondary education. Language and math skills remain particularly weak, with less than 50% of children demonstrating age-appropriate abilities.

Nepal's Sustainable Development Goals (SDGs 1–6) and the National Strategy for Early Childhood Development (2077–2088) emphasize quality education, health, nutrition, and enabling environments for early learning. Child-friendly classrooms, equipped with appropriate materials and spaces, are a central component of these standards. Although the Ministry of Education (MOE) has developed national ECD curriculum guidelines and minimum standards, there is limited understanding of their implementation, particularly in private preschools, which are not yet fully regulated under national policy. While some private schools provide well-equipped learning environments, others fail to meet basic standards, with inadequate space, poor ventilation, insufficient materials, and limited opportunities for play-based learning.
In this context, it is necessary to examine the extent to which both public and private ECD centers meet MOE standards for child-friendly classrooms. This study seeks to identify gaps in classroom management, availability of learning resources, and practical implementation, thereby providing insights for improving early learning environments and promoting holistic development for young children.

Research Questions

The study seeks to answer the following questions:

1. What are the minimum standards established for the physical environment of ECD centers and pre-primary classrooms?
2. What is the present state of ECD and pre-primary classrooms in relation to these minimum standards?
3. What challenges do schools face in applying the minimum standard criteria?
4. How can facilitators and teachers be supported to follow the minimum standards effectively?

Research Objectives

Although the Ministry of Education in Nepal has established minimum standards for classroom physical environments in ECD centers and pre-primary classes, little is known about how effectively these standards are implemented, particularly in private preschool settings. The quality of classroom environments directly affects children's learning opportunities and holistic development. This study aims to examine the current application of these standards, identify challenges faced by school leaders in maintaining them, and suggest ways to improve classroom environments to support early learning.

General Objective

To investigate the implementation of minimum standards for classroom physical environments in ECD centers and pre-primary classes.

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Specific Objectives

- To review the basic minimum standard criteria for private preschools and ECD centers.
- To evaluate the current application of these criteria in the context of government ECD centers (BS 2063, revised 2075).
- To identify challenges faced by school leaders in maintaining these standards in private preschools.
- To highlight the importance of child-friendly classrooms for young children.
- To propose practical recommendations for improving classroom environments to enhance early learning and holistic development.

Methodology

This study employs a **descriptive research design** to examine child-friendly preschool classrooms based on government-prescribed minimum standards. The research was conducted in **Gokarneshwor Municipality, Kathmandu**, where access to schools facilitated data collection. The population included pre-primary sections of schools across wards 1–9 (excluding ward 7), with **20 schools and approximately 55 classes** (Nursery, LKG, UKG) selected as the sample. A **non-probability purposive sampling method** was applied, combining qualitative and quantitative approaches, selecting schools with operational preschool sections, registered pre-primary programs, and daycare centers running regular classes. Data were collected using **structured questionnaires, guided interviews, and checklists**, including focus group discussions with pre-primary teachers. Collected data were organized and analyzed in **Microsoft Excel** using descriptive methods, with results presented through tables, percentages, and summaries. Ethical considerations were strictly followed, including obtaining permissions from school authorities, maintaining voluntary participation, and ensuring confidentiality. The study is limited to **physical aspects of classroom environments** and does not cover teaching, learning, or assessment practices.

Results & Discussions

Basic Minimum Standards 2075: Application in Private Preschools and ECD Centers

The government's minimum standards for ECD centers (MS, 2075) identify five core areas of management essential for effective learning:

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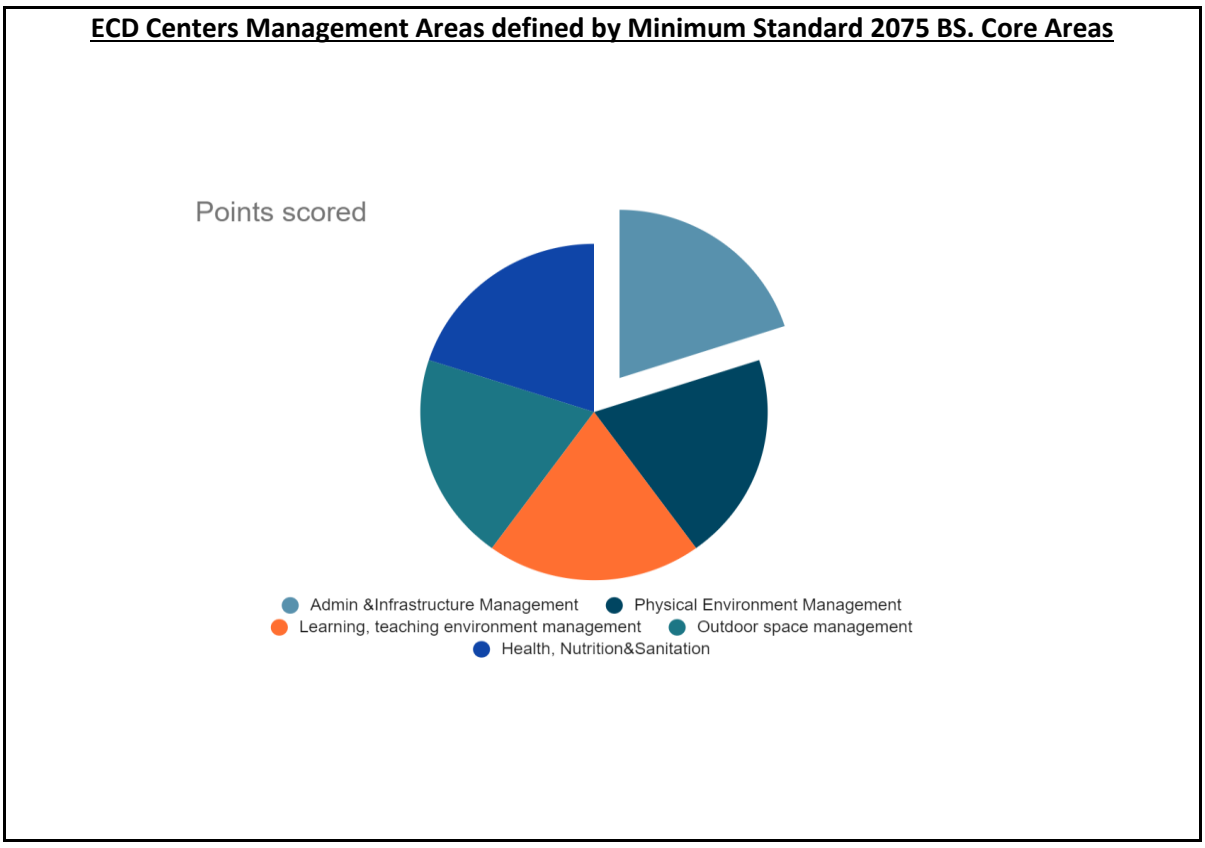

Core Area	Responsibility	Key Requirements
School Administration & Infrastructure Management	School Management	1 sq. ft per child, ventilation, lighting, safety, child-friendly toilets, support for special needs, record-keeping
Classroom Physical Environment	Management & Teacher	Student-teacher ratio, furniture, racks, corner spaces, display, handwashing facilities
Classroom Learning Environment	Teacher & Management	Learning centers (language, math, drama, creative, science, book), materials, scheduling, assessment policy
Classroom Outdoor Management	Management & Teacher	Outdoor equipment, playgrounds, garden space, teacher-led play plan
Health, Safety & Nutrition Management	Management & Teacher	First aid, health checks, immunization, meals/snacks, clean water, hygiene routine, parental awareness

These five areas are interdependent; deficiencies in one area can hinder holistic development. Effective ECD management requires balanced attention across all five areas.
Minimum Standard Application: Positive Impacts
Quantitative Evidence (Field Survey Summary):

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Indicator	% of Classes Meeting Standard
Safe, secure space (far from river/road)	70%
Ground-floor classrooms	85%
Classroom with locks	92%
Racks & basic play materials	72%
Material displays	87%
Math & language materials	50%
Drama/kitchen sets	50%
Storybooks	60%
Building blocks	69%
First aid kit	87%
Lunch/snacks provided	96%
Access to toilets & hygiene support	100%
Outdoor play space	98%
Teachers trained	83%
Parental awareness on child health	80%

The findings demonstrate that most ECD centers in Kathmandu have made significant progress in implementing government minimum standards. Approximately 70% of classes provide safe spaces away from hazards, while 85% of classrooms are on the ground floor and 92% are secured with locks, indicating strong attention to child safety.

Presence of racks and basic play materials in 72% of classrooms, along with 87% having material displays, shows efforts to organize resources and create stimulating learning environments. Half of the classes have subject-specific materials (math, language, drama/kitchen sets, storybooks), which support experiential and skill-based learning. Building blocks are available in 69% of classrooms, fostering hands-on cognitive development.

Health and hygiene indicators are particularly strong: first aid kits are present in 87% of classes, 96% provide meals/snacks, 100% have access to toilets and hygiene facilities, and 98% of classrooms have outdoor play spaces. Teacher training (83%) and parental awareness (80%) further support holistic child development.

Overall, these results show that ECD centers are successfully creating a safe, nurturing, and supportive environment, moving beyond basic compliance to actively contributing to children's overall growth.

Key Challenges:

1. **Classroom Space & Furniture**
- Many centers have inadequate space and furnishing, affecting hygiene and learning.
- Private schools in residential or multi-story buildings struggle to meet the minimum 1 sq. ft per child requirement.

2. **Child-Friendly Classroom Displays**
- While classrooms are decorated, displays often lack educational purpose. Effective displays should showcase children's work, projects, and learning processes (NEL, 2022).

3. **Learning Centers & Subject-Based Materials**
- Only ~19% of classrooms have all necessary learning corners. Many lack math, science, drama, language, and creativity materials.

- Hands-on materials significantly enhance engagement, comprehension, and skill acquisition (ELM Project, 2016; Singapore Curriculum, 2023).

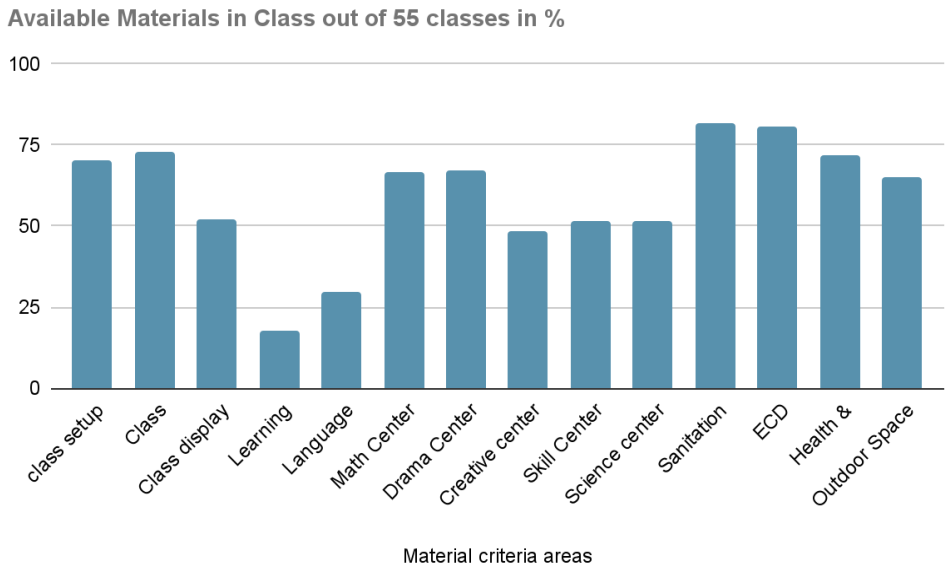
Quantitative coverage of physical standards is higher than qualitative learning standards. While schools have invested in infrastructure and safety, instructional support through materials, learning centers, and displays requires prioritization.

Challenges Faced by Pre-Primary School Leaders

- Lack of policy clarity and inclusion of private preschools in government planning.
- Fragmented governance across multiple ministries causes confusion in ownership, monitoring, and program continuity.
- Competition with private preschools leads to inequities in resources, training, and curriculum adoption.
- Limited communication, networking, and standardization reduce ECD program effectiveness.

Policy gaps, inconsistent monitoring, and insufficient support hinder private ECD centers from fully implementing government standards.

Moderate to Low Availability Areas and Implications



Several critical areas fall in the moderate to low range, posing risks to children's learning and holistic development:

Material/Area	Availability (%)	Implications
Creative Center Materials	48.21	Limits opportunities for artistic expression, problem-solving, cognitive flexibility, and imaginative development.
Skill & Science Center Materials	51.5	Reduces hands-on experiential learning essential for STEM and practical skill acquisition.
Classroom Display	52.10	Predominantly decorative displays fail to reinforce learning or showcase progress, limiting engagement.

Language Center Materials	29.81	Low access affects early literacy, vocabulary, communication, and foundational language skills.
Learning Centers Overall	17.65	Few dedicated centers for child-led, small-group, experiential learning; reduces curiosity, active engagement, and foundational skill development.

Moderate to low availability of these resources can result in:

- Limited engagement and motivation
- Delayed literacy, numeracy, and problem-solving skill development
- Reduced social, creative, and cognitive skill practice
- Long-term impact on school readiness and academic performance

While physical infrastructure, sanitation, and administration are strong, qualitative aspects of learning environments are lagging. Strengthening learning centers and providing sufficient subject-based materials is crucial for meaningful, experiential, and holistic early education. Addressing these gaps will enhance curriculum effectiveness, promote active learning, and support long-term educational outcomes.

Importance of Child-Friendly Classrooms

- Low enrollment and limited materials reduce motivation and completion rates. Only 25% of classes have adequate learning materials.
- Educational outcomes: 82% complete primary education; 27% complete SEE (Face Sheet, 2023).
- Globally, Nepal ranks 114th in education, while India improved from rank 40 (2018) to 33 (2020).

Child-friendly, resource-rich classrooms are essential for improving learning outcomes and long-term educational success.

Recommended Actions for Improvement

Action Area	Suggested Measures
Follow Good Practices	Implement ELM project guidelines: teacher training, learning centers, holistic routines, parental involvement, monitoring
Elaborated Curriculum	Develop detailed math, language, and science guidelines for ECD; reference Singapore & UK frameworks
Monitoring & Evaluation	Evaluate teacher training and classroom practices; prevent rote-based teaching
Unified Ownership	Bring ECD programs under the Ministry of Education for streamlined management
Local Government Engagement	Encourage local authorities to sustain ECD programs beyond donor-driven projects
SDG Implementation	Apply Nepal SDG Roadmap 2016–2030 rigorously for early childhood education

Addressing both qualitative and quantitative gaps require coordinated policy, teacher support, parental involvement, and sustainable governance. Strengthening teacher training, providing adequate learning resources, and unifying oversight under the Ministry of Education are critical

to enhancing child-friendly classrooms, increasing enrollment, and ensuring holistic early childhood development.

Conclusion

The study on child-friendly preschool classrooms in Kathmandu provides a comprehensive understanding of how the Government of Nepal's Minimum Standards (2075) are being implemented in private preschools and ECD centers. The results show notable progress in creating safe, hygienic, and supportive environments, with strong achievements in areas such as infrastructure, sanitation, nutrition, and teacher preparedness. These improvements reflect a positive shift compared to earlier national and global education benchmarks.

However, the research also highlights significant challenges in the qualitative aspects of early childhood education. Limited availability of learning centers, language and creative materials, and meaningful classroom displays poses risks to children's holistic development. These gaps reduce opportunities for experiential learning, early literacy, numeracy, creativity, and problem-solving skills, which are crucial for long-term educational success.

The findings suggest that while Nepal has made important strides in meeting physical and health-related standards, greater attention must be directed toward enriching the quality of learning environments. Stronger policy alignment, unified governance, enhanced teacher training, and sustainable resource allocation are key to addressing these gaps.

Overall, the study concludes that the foundation for early childhood education in Nepal is steadily strengthening. By shifting the focus from mere compliance with physical standards to ensuring active, child-centered, and experiential learning, ECD programs can significantly improve school readiness, learning outcomes, and lifelong skills in young children. In this way, early childhood education can serve as a transformative force for both individual growth and national development.

References

- Acar, H. (2014). Learning environments for children in outdoor spaces. *Procedia - Social and Behavioral Sciences, 152*, 846–853. https://doi.org/10.1016/j.sbspro.2014.09.333
- Adhikari, B. R. (2019). *Early childhood care and education in Nepal: Issues and challenges*. Tribhuvan University.
- Akar, H., & Erden, F. (2011). The influence of the physical environment on early childhood education classroom management. *Eurasian Journal of Educational Research, 44*(1), 185–202.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barine, W. C., & Nwogu, U. J. (2021). Integration of environmental and health safety considerations in early childhood care and development education. *South Asian Research Journal of Education, 3*(4), 195–202.
- Benchekroun, R. C. (2020). Practitioner wellbeing and the physical environment in early childhood education and care (ECEC): Literature review. *OECD Education Working Papers, 222.* OECD Publishing.
- Britannica. (2023). John B. Watson. In *Encyclopaedia Britannica.* https://www.britannica.com/biography/John-B-Watson

- Doctoroff, S. (2001). Adapting the physical environment to meet the needs of all young children for play. *Early Childhood Education Journal*, *29*(2), 105–110. https://doi.org/10.1023/A:1012576903079
- Early Childhood Education and Care (ECEC). (2022). *Finland early childhood education and care curriculum.* Finland Ministry of Education.
- Early Years Foundation Stage (EYFS). (2023). *Early years foundation stage framework.* UK Department for Education.
- Elango, S., García, J. L., Heckman, J. J., & Hojman, A. (2016). Early childhood education. In R. Moffitt (Ed.), *Economics of means-tested transfer programs in the United States, Volume 2* (pp. 235–297). University of Chicago Press.
- Froebel, F. (1838). *The education of man.*
- Froebel Trust. (n.d.). The power of play. https://www.froebel.org.uk/about-us/the-power-of-play
- Government of Nepal. (2067/2075 BS). *National minimum standards for ECD centers.* Kathmandu: Ministry of Education.
- Government of Nepal. (2077 BS [2020]). *Early childhood development curriculum.* Kathmandu: Ministry of Education.
- Harvard Gazette. (2008, February). Infants are able to recognize quantity. *Harvard Gazette.* https://news.harvard.edu/gazette/story/2008/02/infants-are-able-to-recognize-quantity/
- Kaul, V. (2020). *Building futures: Early childhood development service quality standards for South Asia.* UNICEF.
- Lascarides, V. C. (2013). *History of early childhood education* (Vol. 982). Routledge.
- Montessori, M. (1967). *The absorbent mind.* Holt, Rinehart and Winston.
- Montessori, M. (2023). Maria Montessori. In *Wikipedia.* https://en.wikipedia.org/wiki/Maria_Montessori
- Nurturing Early Learners (NEL). (2022). *Nurturing early learners framework.* Ministry of Education, Singapore.
- Piaget, J. (1970). *The psychology of the child.* New York: Basic Books.
- Piaget, J. (1971). The theory of stages in cognitive development. In D. R. Green, M. P. Ford, & G. B. Flamer (Eds.), *Measurement and Piaget* (pp. 1–11). McGraw-Hill.
- Save the Children. (2017). *Key features and good practices of early literacy and math (ELM) project in Nepal.* Save the Children Nepal.
- Seto Gurans NCDS. (2019). *Status of early childhood development centers: A study based on national minimum standard.* Kathmandu: Seto Gurans NCDS.
- Shrestha, D. K. (2022). Early childhood education and development in Nepal: A critical analysis. *Journal of Education and Development, 10*(2), 45–62.
- Skinner, B. F. (1938). *The behavior of organisms.* Appleton-Century.
- Skinner, B. F. (1967). *The technology of teaching.* New York: Appleton-Century-Crofts.
- Thapa, S. (2015). *Policy rhetoric, meanings, and local perceptions in Nepal.* University of Leeds.
- UNESCO. (2023). Early childhood education. *UNESCO.* https://www.unesco.org/en/early-childhood-education
- UNICEF. (2020). *State of children in Nepal.* National Child Rights Council, Ministry of Women, Children and Senior Citizens.

- UNICEF. (2023). *Early childhood development.* UNICEF. https://www.unicef.org/early-childhood-development
- UNICEF Nepal. (2020). *Building futures: Early childhood development service quality standards for South Asia.* Kathmandu: UNICEF.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Harvard University Press.
- Zhou, M., & Brown, D. (2015). *Educational learning theories* (2nd ed.). Galileo Open Learning Materials, University System of Georgia.

Appendices

Annex 1: Participant Questionnaire Sample

|*Classroom Physical Environment Checklist based on Minimum standar*

Teacher name:

Sex: Age: Education

Teaching experience Year:
Training taken:
Ethnicity
Marital status:
Class:
School
Ward no:
Phone Number

1. **Are you aware of Minimum standard for ECD/Pre School?**

…….

2. **What are the basic criteria of minimum standard?**

……

……..

……..

……..

3. **Classroom**

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S.no	Details	Yes	No	Remarks
	26*16*8 Feet			
	natural light,			
	windows and door with lock,			
	Flexible space to play, sleep and learn.			
	Far from river, well or any other danger area			
	Separate building for ECD centers in case of primary secondary school.			
	Ground floor for young children.			
	Child friendly toilet			
	Building that support special need child's			

4. Classroom environment management

S.no	Details	Yes	No	Remarks
	20-25 children with 5 group activity.			
	Open rack available			
	Corner material separate in racks, children are allowed to use it			
	Child materials need to be			

	displayed in the classroom			
	Water and mud, sand play area outside of the classroom.			
	Facility of hand washing.			
	Different display: calendar, watch, charts			
	Local materials/ low cost no cost materials.			
	Flexible table and chair.			

5. Learning Centers

S. no	Details	Yes	No	Remarks
	Language corner			
	Math corner			
	Drama corner			
	Creative corner			
	Skill corner			
	Science corner			
	Book corner			

6. Materials

S. no	Details	Yes	No	Remarks
	Story books			

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	Number book			
	Language book			
	Flannel board			
	Animal module/toy			
	Kitchen set			
	Dolls			
	Blocks			
	Puzzle			
	Scissors			
	Papers			
	Pencil			
	Brush			
	Color			
	Shape size			
	Self-correction set			
	Scale			
	Dough/clay			
	Visual schedule			
	Watch			
	Calendar			
	Weather cahrt			
	Name card			

	Dominoes 12 set			
	Word board			
	Nepali flag			
	Bean bag at least 4			
	Doll family set			
	Puppet 1 pair			
	Hanging name card			
	Picture story book 24			
	Child song book 1			
	Felling material at least 5			
	Musical instrument 1			
	Matching set 4			
	Mirror 1			
	Natural resources: lapsi, cloth pieces, seeds, beans			
	Admission book			
	Attendance book			
	Account book			
	Health record book			
	Pre writing board per child			
	Shoe Brush			

7. Water, sanitation, nutrition

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S. no	Details	Yes	No	Remarks
	Health checkup			
	First aid box available			
	Clean classroom and daily cleanliness of a child.			
	Immunization record			
	Awareness to parents about transmitted disease.			
	Safe drinking water.			
	Child friendly toilet with water and hand washing facility.			
	Lunch facility			
	Routine of drinking water			

8. Outdoor Materials

S. no	Details	Yes	No	Remarks
	Play ground			
	Slide			
	Swing			
	Tire tunnel			
	See-saw			

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	Balls			
	Sand Play			
	Water Play			
	Skipping			
	Stairs			
	Green garden			

9. What are the challenges to apply minimum standard in your classroom