



## Early Childhood Education in Somalia: Foundational Capabilities, Structural Barriers, and the Conditions for AI-Ready Learning

Rahma Shire

The Open University, Milton Keynes, United Kingdom

Email: rahmashire7@gmail.com

### Abstract

The study rigorously examines the relationship between early childhood education (ECE) and school readiness in the Somali context, emphasising the foundational competencies essential for effective learning in an increasingly technology-driven educational environment. Drawing on an extensive review of empirical and theoretical literature, including research conducted in Somalia and Somaliland, international case studies from Finland, and longitudinal data on early skill development, the analysis posits that children entering primary education without prior ECE exposure tend to exhibit significant cognitive, social, and emotional deficits that often persist throughout their educational trajectories. Evidence from four Somali-based investigations, covering early childhood provision, transitional processes into primary education, and university foundation programmes, demonstrates that disparities originating in early childhood are unlikely to be fully remedied by remedial interventions alone. Furthermore, the study explores structural barriers, including inadequate teacher training, limited access to learning materials, and ineffective policy enforcement, that impede the success of existing ECE initiatives. The findings highlight that cultivating core competencies in early childhood, specifically language acquisition, emotional regulation, and social participation, is essential for engaging with digital and AI-enabled pedagogical tools. The conclusion emphasises that Somalia's efforts to develop an equitable, effective, and technologically advanced education system depend on sustained, systemic investment in early childhood education. The paper offers pragmatic policy recommendations for policymakers, educators, and international development actors committed to improving early learning outcomes in fragile and conflict-affected settings.

**Keywords:** Early Childhood Education, Somalia, school readiness, foundational capabilities, AI-ready learning

### 1. Introduction

Early childhood education has long been acknowledged as a critical investment for future societal development. The initial years of life constitute a vital developmental period during which the groundwork for subsequent skills acquisition and learning is established. International research provides unequivocal evidence that the quality of early learning environments exerts a significant and enduring influence on children's cognitive, social, and emotional development, with impacts extending into adulthood (OECD, 2017). Mukherji and Dryden (2014) further substantiate this understanding by asserting that early childhood is a unique developmental stage in which learning is shaped not only by formal instruction but also by the quality of relationships, the environment, and responsive pedagogical approaches

surrounding the child. Consequently, early childhood education is not merely preparatory for formal schooling; it embodies an essential developmental phase with inherent long-term importance.

Despite the robust evidence supporting its significance, access to quality early childhood education remains markedly unequal. Somalia exemplifies one of the most severe cases of early childhood educational deprivation globally. Decades of civil conflict, political instability, and chronic underfunding of public services have led to a fragmented education system. The majority of Somali children commence primary education without prior structured early learning experiences, entering Grade 1 lacking the foundational skills in language, social competence, and emotional regulation that early childhood education aims to cultivate (Ali et al., 2025). This issue is not a peripheral concern; data collected across Somalia's educational spectrum, from primary classrooms to university foundation courses, consistently indicate that developmental deficits originating in early childhood tend to persist, expand, and subsequently limit opportunities throughout the educational trajectory (Salad & Salim, 2025).

The paper posits that these accumulated deficits acquire heightened urgency in the context of the ongoing digital transformation of education. As AI-enabled learning technologies proliferate in educational systems across sub-Saharan Africa and beyond, the core cognitive, linguistic, attentional, and social-emotional capabilities developed in early childhood become essential prerequisites for meaningful engagement with these technologies. Children lacking these foundational skills are not only at risk of academic underachievement but also at risk of exclusion from the technological aspects of twenty-first-century education. For this analysis, “AI-ready learning” refers to the foundational cognitive, linguistic, social, and self-regulatory abilities that facilitate productive interaction with AI-enabled educational tools, including language comprehension, attentional control, emotional regulation, and collaborative problem-solving. Notably, AI-ready learning is distinct from technical proficiency or digital literacy; it encompasses a developmental foundation that must be cultivated in early childhood, thereby positioning digital inclusion as a fundamental learning issue rooted in the earliest stages of development.

Furthermore, this study situates early childhood education within a broader national capacity-building framework, where early learning serves as the foundational layer for ongoing cognitive, social, and technological participation across the educational continuum. Within this conceptualisation, deficiencies in early childhood education are not isolated sectoral issues but rather structural constraints that impact long-term human capital development, educational equity, and technological preparedness in Somalia. This research contributes to the scholarly discourse by integrating fragmented evidence on Somali education across diverse stages, linking early childhood deprivation with subsequent educational underpreparedness, and reframing AI readiness as a core capability issue rather than solely a technological challenge.

## **2. Literature Review**

### **2.1 The Developmental and Pedagogical Significance of Early Childhood Education**

A comprehensive body of international research confirms that early childhood education yields long-term benefits across cognitive, social, and economic domains. Mukherji and Dryden (2014) establish a foundational theoretical basis for this assertion, emphasising that effective early years practice must be grounded in an understanding of early developmental processes. Their work highlights that early childhood provision should be holistic, relational, and child-centred, with high-quality early experiences shaping children's cognitive, social, and emotional trajectories in ways that subsequent interventions may not fully replicate. This insight is particularly salient in the Somali context: it is not solely a matter of Somali children lacking

academic knowledge at school entry, but rather of the absence of developmental foundations essential for all subsequent learning.

The OECD (2017) reinforces these findings on an international scale. High-quality early childhood education (ECE) contributes notably to long-term learning and developmental outcomes, with investments in early education producing returns across educational attainment, labour market participation, and social integration. Crucially, the OECD highlights that these benefits are contingent upon the quality of provision and the effective management of transitions from early childhood settings to primary school. Poorly managed transitions and inconsistent quality can negate the advantages of early education within the early years of primary schooling (OECD, 2017). This consideration is particularly significant for Somalia, where access to quality ECE and well-structured transition processes remain limited.

Finland exemplifies the potential of high-quality, equitable ECE provision. Harju-Luukkainen et al. (2022) describe a system based on universal access, regulated child-teacher ratios, and child-centred pedagogical approaches that result in sustained educational excellence and the mitigation of social inequalities. However, it is important to recognise that Finland's structural conditions, including sustained public financing, a professionalised workforce, and legislative coherence, are not directly transferable to fragile-state contexts. As Dahlberg et al. (2013) caution, dominant models of early childhood provision are shaped by specific political and cultural conditions and require critical adaptation to local contexts. Consequently, the Finnish model serves as a normative benchmark against which Somalia's fragmented provision can be analytically assessed, rather than as a prescriptive template.

## **2.2 Early Skills as Predictors of Long-Term Learning Outcomes**

Beyond structural and pedagogical evidence, longitudinal research provides compelling empirical evidence that the specific skills acquired in early childhood are significant predictors of subsequent academic performance across subjects and over extended periods of schooling. Claessens and Engel (2013) analysed data from the Early Childhood Longitudinal Study-Kindergarten Cohort. They established that early skills are crucial determinants of later academic success, with early mathematics proficiency forecasting outcomes in reading, mathematics, and science from kindergarten through eighth grade. Notably, their findings identify specific early skills, namely, pattern recognition, measurement, and advanced numerical skills, as the strongest predictors of future academic achievement. Furthermore, early mathematical competencies are more influential for later mathematics and reading achievement than initial reading skills at school entry. These findings carry substantial implications for educational policy and resource allocation: early skill deficits are not merely initial disadvantages that can be mitigated over time; rather, they function as indicators of enduring academic disadvantages that tend to amplify throughout a child's educational trajectory. Children lacking the foundational skills provided by early childhood education are statistically more likely to experience underachievement and grade retention throughout their schooling.

## **2.3 ECE in Somalia and Somaliland: The Evidence Base**

Empirical research on early childhood education (ECE) in Somalia remains limited but is expanding. Ali et al. (2025) conducted a case study of ECE provision in Hargeisa, Somaliland, which documented both the developmental benefits of early learning programmes and the substantial structural challenges that hinder their quality and accessibility. The study affirmed that ECE promotes cognitive, social, and emotional development, which is fundamental for lifelong learning, even within resource-constrained environments typical of Somaliland. When ECE includes daily feeding programmes, health checks, structured routines, safe learning environments, and child-centred pedagogy, it yields measurable improvements in children's school readiness. However, most centres in Hargeisa offer only one year of provision, despite

policy recommendations for two years, resulting in developmental challenges for children aged four and five (Ali et al., 2025). More critically, the study highlights that inadequate ECE endangers the cognitive and emotional development of young learners, thereby risking an entire generation's preparedness for formal education.

The pervasive structural barriers identified by Ali et al. (2025) include insufficient teacher training, lack of appropriate learning materials, unsafe physical environments, policy-practice gaps, and limited government oversight. The role of international NGOs in sustaining ECE services is acknowledged as both vital and problematic; NGOs support teacher salaries, feeding programmes, and learning assessments across many centres. Without this external support, provision would be considerably weaker. However, reliance on external funding introduces fragility, as ECE programmes that cannot be fully funded through public investment remain vulnerable to shifts in donor priorities and are unlikely to be scaled effectively to serve all children.

The consequences of such deprivation are evident throughout Somalia's education system. Salad and Salim (2025) examined Somalia's university foundation year programme, introduced in 2023 to address the academic unpreparedness of incoming university students. Their findings suggest that this initiative cannot resolve the deeper systemic challenges within Somalia's education sector. The authors argue that sustainable reform requires strengthening the curriculum, improving teacher training, and ensuring quality education from the early years, emphasising that university readiness must develop gradually over time rather than within a single year. Similarly, Ahmed (2023) reports from the perspective of university lecturers that students frequently arrive with severe deficiencies in foundational literacy, academic English, analytical thinking, and study skills, skills that should be cultivated during early childhood education. Osman (2025) corroborates this perspective through a mixed-methods study that found that 62.75% of students, lecturers, parents, and administrators expressed negative attitudes towards the foundation year, with weak prior schooling cited as the underlying cause. The same study found that 78.7% of foundation year students regarded English instruction as below standard, and 69.4% deemed teaching materials inadequate, highlighting the inherent impossibility of the foundation year compensating for more than fifteen years of missing early developmental foundations.

These empirical gaps exist within a broader policy environment that has acknowledged the importance of early childhood provision but has yet to establish the conditions necessary for its effective implementation. Somalia's Federal Ministry of Education has recognised ECE as a priority within successive education sector plans, including the Somalia Education Sector Strategic Plan 2017–2021. Both UNICEF (2022) and the Global Partnership for Education have invested in ECE programming nationwide. Nonetheless, a significant disconnect persists between policy commitments and actual provision; national ECE frameworks lack the accompanying financing and teacher development systems essential to sustain quality at scale. This highlights the urgency of systemic, rather than project-based, investment.

Collectively, these four studies present a coherent and urgent narrative: Somalia's education system is grappling with a crisis at the university level that originates in early childhood. The foundation year is not failing due to poor design; rather, it is failing because it is being asked to address issues rooted in the neglect of early development, an impossible task given the current systemic constraints.

### **3. Data and Method**

The study employs a qualitative, interpretive research design centred on thematic literature synthesis as its primary methodological approach. It draws upon four empirical studies conducted in Somalia and Somaliland between 2023 and 2025, complemented by international theoretical and empirical literature on early childhood education, foundational learning, and

school readiness. The Somali studies were selected for their empirical grounding, direct relevance to the Somali educational context, and their contribution to a diverse body of evidence addressing the same structural issues across different levels of the education system, including early childhood provision (Ali et al., 2025), university foundation year policy (Salad & Salim, 2025), lecturer perspectives on student preparedness (Ahmed, 2023), and stakeholder attitudes (Osman, 2025).

The interpretive approach is particularly appropriate given the fragmented nature of the educational evidence base on ECE provision in Somalia, which results from the country's limited statistical infrastructure and the logistical challenges of data collection in conflict-affected environments. The thematic synthesis follows the framework proposed by Thomas and Harden (2008), wherein themes are inductively generated from primary study findings and critically examined against existing theoretical literature to develop higher-order analytical constructs. These constructs are organised around three key themes: foundational capability deficits, structural barriers to provision, and implications for AI-ready learning. The analysis is guided by three research questions: What are the consequences of inadequate ECE for children's foundational capabilities? What structural barriers hinder ECE provision in Somalia? Moreover, what are the implications for children's capacity to engage with AI-enabled learning? The author's positionality as a researcher engaging with Somali educational contexts grounds the interpretive claims in evidence derived from the reviewed studies.

International literature from sources including the OECD (2017), Harju-Luukkainen et al. (2022), Claessens and Engel (2013), and Mukherji and Dryden (2014) provides a broader theoretical and empirical context through a systems-level educational analysis. This comparative framework enables the placement of Somali evidence within contexts where ECE provision is more developed, and effects are better documented. The Somali-focused studies constitute a concentrated yet growing body of locally grounded evidence; nonetheless, findings from specific localities, particularly Hargeisa, may not be fully generalisable across the diverse regional contexts within Somalia.

Several limitations are inherent to this study. The available research is predominantly concentrated in Somaliland, especially in Hargeisa, which limits the potential for national generalisation. Furthermore, the reliance on qualitative thematic synthesis rather than large-scale longitudinal data reflects the fragmented evidence base characteristic of fragile-state contexts. Future research should aim to incorporate nationally representative, longitudinal studies to examine the long-term relationships among early childhood education, foundational capabilities, and technological participation. Table 1 summarises the capability-formation cascade that emerges from the synthesis.

Table 1. Early Childhood Capability Formation and Educational Outcomes in Somalia

| Stage                                  | Mechanism / Description                                                                                                                                                                                                                  | Evidence Source                                    |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>1. ECE Deficit</b>                  | The majority of Somali children enter Grade 1 without any prior structured early learning. Structural barriers (inadequate teacher training, unsafe environments, NGO-dependency) constrain the quality and reach of existing provision. | Ali et al. (2025); OECD (2017)                     |
| <b>2. Foundational Capability Gaps</b> | Children enter school lacking vocabulary, executive function, emotional regulation, and social participation skills. These are not                                                                                                       | Claessens & Engel (2013); Mukherji & Dryden (2014) |

| Stage                                   | Mechanism / Description                                                                                                                                                                                                                                                                  | Evidence Source                                   |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
|                                         | neutral absences; they are predictors of sustained academic disadvantage.                                                                                                                                                                                                                |                                                   |
| <b>3. School Readiness Problems</b>     | Children arrive at Grade 1 without the cognitive, social, and emotional readiness for structured learning. Teachers must remediate basic developmental gaps, reducing instructional time and quality for all learners.                                                                   | Ali et al. (2025); Harju-Luukkainen et al. (2022) |
| <b>4. Secondary Learning Deficits</b>   | Gaps compound across primary and secondary schooling. Children who start behind rarely catch up; deficits widen as curriculum demands increase. Foundational literacy and numeracy remain underdeveloped.                                                                                | Claessens & Engel (2013); Ahmed (2023)            |
| <b>5. University Remediation Crisis</b> | Students arrive at university without foundational academic skills. The foundation year programme attempts to compensate for 15+ years of missing foundations and cannot succeed. 62.75% of stakeholders hold negative perceptions of its effectiveness.                                 | Salad & Salim (2025); Ahmed (2023); Osman (2025)  |
| <b>6. AI Exclusion Risk</b>             | <b>Children without foundational capabilities cannot engage meaningfully with AI-enabled learning tools, regardless of device availability. Digital transformation deepens rather than reduces inequality. AI exclusion becomes an additional dimension of educational disadvantage.</b> | <b>This paper (synthesising all sources)</b>      |

*Note. The stages denote a directional cascade: each stage produces the conditions for the next. Investment at Stage 1 (ECE) is the only intervention point that can interrupt the cascade at all subsequent stages.*

## 4. Results and Discussion

### 4.1 Cognitive and Language Readiness Gaps

The evidence from Somalia and Somaliland consistently highlights cognitive and language readiness as the most critical deficits among children entering primary school without prior early childhood education (ECE) experience. Ali et al. (2025) report that children entering Grade 1 without foundational learning experiences often lack basic vocabulary, have difficulty following multi-step instructions, and have limited exposure to books or structured learning activities. Teachers in the study observed that these children have very limited vocabularies and struggle to understand instructions. Such deficits are not attributable to individual variation but rather stem from structural deficiencies: in the absence of ECE provision, children lack access to sustained, responsive language environments essential for developing early vocabulary and comprehension.

The long-term academic ramifications of these early gaps are well documented. Claessens and Engel (2013) demonstrate that early skills such as language comprehension, pattern recognition, and numerical understanding serve as strong predictors of educational outcomes across disciplines, including reading, mathematics, and science, extending into later schooling years. Children who commence schooling without these foundational skills are not simply disadvantaged initially; they are positioned on a trajectory of escalating disadvantage. Furthermore, Mukherji and Dryden (2014) emphasise the pedagogical importance of early cognitive development, asserting that it is inherently relational and dependent on responsive adult interaction, enriched language environments, and opportunities for exploratory play. These elements cannot be adequately substituted through remedial interventions at later stages. The implications of these cognitive gaps extend directly to engagement with digital and AI-enabled learning tools. Teachers in Ali et al. (2025) report that children lacking early educational experiences struggle to comprehend digital instructions and cannot follow the sequential steps required to navigate learning applications. Digital learning tools presume a baseline of cognitive and linguistic skills, such as reading instructions, interpreting visual cues, and sequencing actions, which early childhood education aims to develop. Without this foundational capacity, integrating technology into the classroom risks exacerbating exclusion rather than promoting access to learning.

AI-enabled learning systems depend on foundational abilities cultivated during early childhood, including language comprehension, sustained attention, executive functioning, and problem-solving skills. Children who lack these capabilities are less able to engage with adaptive learning technologies, thereby intensifying existing educational inequalities. Miao and Holmes (2023) explicitly identify foundational literacy as a prerequisite for meaningful interaction with AI, while the World Bank (2020) contends that weak foundational learning may deepen, rather than diminish, educational disparities.

## **4.2 Emotional and Behavioural Regulation**

A crucial aspect of foundational capability is emotional and behavioural regulation, encompassing the ability to manage attention, tolerate frustration, persist through challenges, and navigate the social and emotional demands of the classroom setting. Ali et al. (2025) observed that children who had not experienced structured learning environments frequently became overwhelmed by school demands, exhibiting emotional dysregulation, difficulty maintaining attention, and an inability to adapt to changes in activities. Educators described children lacking exposure to consistent daily routines as finding the classroom environment overwhelming, often responding with distress, withdrawal, or disengagement. Osman (2025) corroborates this finding indirectly by noting that university students lacking foundational academic preparation similarly struggle to sustain effort amid the demands of foundation-year studies; this pattern aligns with the absence of self-regulatory skills, which are largely developed through sustained early learning experiences.

The specific humanitarian context of Somalia exacerbates these challenges. A considerable proportion of Somali children have endured displacement, family separation, or direct exposure to conflict-related violence. Such experiences impose additional burdens on children's self-regulatory capacities and underscore the importance of safe, predictable, and relationally consistent environments, as identified by Mukherji and Dryden (2014), as central to effective early childhood practice. Early childhood education (ECE) programmes that incorporate consistent routines, responsive relationships, and trauma-sensitive pedagogies are among the most effective interventions in conflict-affected contexts. Nonetheless, the efficacy of these interventions depends heavily on their availability and quality.

Regarding technology-enhanced learning, there are direct implications: AI-enabled tools require children to tolerate frustration, persevere through unfamiliar tasks, and manage

the cognitive load associated with digital environments. Children lacking these self-regulatory capacities are more likely to disengage entirely, thereby potentially widening the educational disparities that technology aims to mitigate.

### **4.3 Social Capabilities and Participatory Learning**

A third domain of foundational capability, social participation, is consistently recognised as a significant area of unpreparedness among children lacking early childhood education (ECE) experience. Ali et al. (2025) report that children entering school without prior early learning exposure often lack essential social skills necessary for peer collaboration, including sharing materials, taking turns, expressing needs clearly, and resolving conflicts independently of adult intervention. Educators have observed children who are unfamiliar with appropriate play behaviours or who avoid social interaction altogether, resulting in classrooms where the social and collaborative aspects of learning are effectively inaccessible to a substantial number of pupils. Harju-Luukkainen et al. (2022) exemplify how structured early social learning is implemented in practice. Finland's early childhood education and care (ECEC) system intentionally fosters children's social competencies through child-centred pedagogy, group activities, and carefully managed peer interactions within a coherent national curriculum. In high-quality, well-resourced ECE settings, social learning, such as listening, negotiating, collaborating, and communicating, is not incidental but constitutes a core developmental objective of early childhood education. Conversely, in Somalia, where many children spend their early years in domestic or informal environments with limited structured peer interactions, these social capabilities must be developed from scratch upon entry to primary school. This situation impedes the pace and quality of learning for all children. Furthermore, digital tools designed for collaborative learning, emphasising pair work, discussion, and peer feedback, are often inaccessible to children without foundational social skills. This inaccessibility exacerbates existing inequalities in engagement and achievement.

### **4.4 Structural Barriers to ECE Provision in Somalia**

The reviewed evidence highlights a persistent and interconnected set of structural barriers that limit the quality and accessibility of early childhood education (ECE) in Somalia. Ali et al. (2025) identify several critical issues, including inadequate teacher training, insufficient learning materials, unsafe physical environments, persistent policy-practice gaps, and limited governmental oversight. Of these, teacher training is particularly vital: many ECE practitioners in Somalia lack formal qualifications in early childhood pedagogy, and opportunities for in-service professional development are scarce. Consequently, even where ECE services are available, their quality often falls short of producing the developmental outcomes for which ECE is intended. Well-meaning efforts and community engagement cannot replace the need for pedagogical expertise and professional support.

These foundational deficiencies at the early childhood level have a cascading effect throughout the education system. As demonstrated in Section 2.3, Somalia's university foundation year, introduced to address the unpreparedness of incoming students, fails to achieve its goals because the deficits it seeks to remediate did not originate at university entry. Instead, they stem from earlier systemic failures in ECE provision. These barriers are not isolated issues but serve as the starting points of a systemic cascade that impacts every level of education.

The role of international NGOs in supporting Somalia's limited ECE infrastructure is both crucial and inadequate. Ali et al. (2025) note that these organisations fund teacher salaries, feeding programmes, and learning assessments across numerous ECE centres in Somaliland. Without this aid, the currently available ECE services would be unsustainable. However, NGO-funded ECE remains fragile; it depends heavily on donor priorities, faces challenges in scaling, and lacks the structural capacity to ensure universal access, which is essential for equitable

early childhood education. A nationally funded, publicly regulated ECE system represents the only sustainable pathway towards achieving these goals.

#### **4.5 Early Childhood as the Strategic Priority for Somalia's Education System**

The cumulative evidence from the four Somali studies reviewed provides a compelling and, collectively, irrefutable argument that early childhood constitutes the most strategically critical intervention point within Somalia's education system. Each study offers a different perspective on the same issue: Ali et al. (2025) demonstrate that even limited ECE provision leads to significant improvements in children's school readiness; Salad and Salim (2025), Ahmed (2023), and Osman (2025) illustrate that the absence of such provision results in cascading consequences throughout subsequent levels of education, creating persistent gaps that no downstream intervention has proven capable of closing. This evidence aligns with the international literature. The OECD (2017) shows that the returns on investment in high-quality ECE surpass those at later educational stages, especially for children from disadvantaged backgrounds. Harju-Luukkainen et al. (2022) find that countries with the strongest educational outcomes are those that have built their systems on a foundation of equitable, high-quality early childhood education. Claessens and Engel (2013) provide longitudinal insights into why this is the case: the skills children develop, or fail to develop, during early childhood significantly influence their academic trajectories across the entire school career and beyond. For Somalia, converging evidence from early childhood through higher education indicates a clear conclusion: effective reform must commence at the very beginning. Investment in ECE is not merely an option but a necessary precondition for the success of all subsequent educational investments. The policy implications, planning considerations, and opportunities for international development cooperation are further discussed in Section 5.

### **5. Conclusion**

The paper systematically examines the relationship between Early Childhood Education (ECE), foundational capabilities, and school readiness in Somalia, emphasising the implications for engagement with digital and AI-enabled learning. Through a thematic synthesis of four Somali empirical studies within the broader international evidence base, it is argued that the lack of high-quality early childhood education results in significant and persistent deficits in children's cognitive, emotional, and social capabilities. These deficits tend to cascade through primary, secondary, and higher education, with no downstream intervention capable of fully remediating them.

These foundational gaps assume particular urgency amid Somalia's ongoing digital transition. As AI-enabled technologies become increasingly integrated into educational settings across sub-Saharan Africa, children lacking the necessary cognitive, social, and self-regulatory foundations developed through effective ECE will be systematically disadvantaged, thereby exacerbating inequalities rather than mitigating them.

The practical implications are both clear and urgent. Somalia's policymakers, development partners, and educational institutions must recognise early childhood education not as a peripheral issue but as a fundamental priority from which all other educational advancements should flow. Based on the reviewed evidence, four specific recommendations are proposed. First, the Somali Federal Government should develop and implement a nationally funded, publicly regulated ECE system that guarantees at least two years of quality provision prior to primary school enrolment, reduces reliance on NGO funding, and ensures universal access. Second, significant investment is essential in the initial training and ongoing professional development of early childhood educators to ensure that ECE delivers the developmental outcomes supported by existing evidence when delivered with pedagogical quality. Third, ECE curricula and practices should incorporate trauma-sensitive approaches

tailored to the developmental needs of children in conflict-affected communities, drawing upon the relational and environmental principles outlined by Mukherji and Dryden (2014) and aligned with the structural quality indicators of the Finnish model (Harju-Luukkainen et al., 2022). Fourth, national ECE policy must explicitly address the foundational capabilities necessary for digital and AI-enabled learning, equipping Somalia's youngest learners not only for current classrooms but also for future technological environments.

The development of an equitable, effective, and technologically capable education system in Somalia fundamentally depends on investing in early childhood. The four Somali studies reviewed herein collectively emphasise this central point, supported by the weight of international evidence. Without sustained investment in developing foundational capabilities through quality early childhood education, Somalia risks perpetuating educational inequalities across future generations and marginalising large segments of its population from meaningful participation in increasingly technology-driven learning environments.

### **Ethical Approval**

Not applicable.

### **Conflicts of Interest**

The author declares no conflict of interest.

### **References**

- Ahmed, S. A. S. (2023). Exploring perspectives of lecturers and administrators at universities on the new foundation year policy for enhancing higher education quality in Somalia. *SERDEC Education Journal*, 4, 1–12. <https://doi.org/10.1104/SEJ.2023223996>
- Ali, J. A., Golga, D. N., Abdi, M. K., Ali, T. A., Cumar, M. A., Ali, N., & Muse, A. H. (2025). Advancing early childhood education policy: a transformative case study in Hargeisa, Somaliland—insights from preprimary education development. *Cogent Education*, 12(1), 2442189. <https://doi.org/10.1080/2331186X.2024.2442189>
- Claessens, A., & Engel, M. (2013). How important is where you start? Early mathematics knowledge and later school success. *Teachers College Record*, 115(6), 1–29. <https://doi.org/10.1177/016146811311500603>
- Dahlberg, G., Moss, P., & Pence, A. (2013). *Beyond quality in early childhood education and care: Languages of evaluation* (3rd ed.). Routledge.
- Harju-Luukkainen, H., Kangas, J., & Garvis, S. (Eds.). (2022). *Finnish early childhood education and care: A multi-theoretical perspective on research and practice*. Springer. <https://doi.org/10.1007/978-3-030-95512-0>
- Miao, F., & Holmes, W. (2023). *Guidance for generative AI in education and research*. UNESCO. <https://doi.org/10.54675/EWZM9535>
- Mukherji, P., & Dryden, L. (2014). *Foundations of early childhood: Principles and practice*. SAGE.
- OECD. (2017). *Starting strong 2017: Key OECD indicators on early childhood education and care*. OECD Publishing.
- Osman, A. A. (2025). Stakeholder's perception on the foundation year: Case study Somalia higher education. *Horn of Africa Journal of Social Science*, 3(2), 61–71. <https://doi.org/10.70806/gvw1br27>
- Salad, M. M., & Salim, S. S. (2025). The betterment of the foundation year program in Somalia: A qualitative perspective. *European Journal of Science and Modern Technologies*, 1(3), 59–71. [https://doi.org/10.59324/ejsmt.2025.1\(3\).07](https://doi.org/10.59324/ejsmt.2025.1(3).07)

- Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*, 8(1), 45.  
<https://doi.org/10.1186/1471-2288-8-45>
- UNICEF. (2022). Somalia country programme: Education. UNICEF Somalia.
- World Bank. (2020). *Realizing the future of learning: From learning poverty to learning for everyone, everywhere*. World Bank Group.  
<https://documents1.worldbank.org/curated/en/250981606928190510/pdf/Realizing-the-Future-of-Learning-From-Learning-Poverty-to-Learning-for-Everyone-Everywhere.pdf>