



Home environment as a determinant of foundational learning skills: A review of literature

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Abstract

It is commonly acknowledged that improving one's quality of life requires literacy. Beyond learning the fundamentals of reading and writing, it is essential for reducing poverty, and promoting social cohesion, peace, and stability on a worldwide scale. In this regard, the current study aims to investigate how children's foundational learning skills are shaped by their home environment. In order to investigate the research problem in a methodical way, the study is situated within a review of the body of existing scholarly literature and makes use of previously published research. Thematic analysis was used to examine the chosen studies in order to find recurrent themes and important concepts. According to the review, a number of aspects of the home environment including socioeconomic status, family support, language use in the home, and home culture are important factors that affect how children develop their foundational learning skills.

Keywords: Foundational Learning, Home environment

Introduction

Education serves not only as the fuels of national progress but also as a significance factor of individual growth. Throughout the history, education has backbone of every prosperous society. According to the UNESCO, "literacy is essential for a better life not only because of the ability to read and write but also because it would help to eradicate poverty, reduce child mortality, maintain peace and stability across the world" (UNESCO,2015, as cited in Foundational Literacy and Numeracy report,2023, p.20). Foundational education or primary education is very significance block of any education system. Foundational learning or education includes foundational literacy, numeracy, and socio-emotional skills (world Bank, n.d.). Evolving of a strong foundational literacy skills and foundational numeracy or mathematical skills at early age of learner is strong foundation for future education or learning (NIPUN Bharat guideline, 2021^[8], p.58). Foundational Literacy and Numeracy skills is the basic ability to reading, writing, understanding the text and ability to compute and understand the number system, numerical operation.

In the Indian context, the importance of Foundational Literacy and Numeracy has been prominently underscored by a series of key policy initiatives. The second National Policy of Education prioritised the comprehensive development of children through foundational learning (NPE,1986). 'Padhe Bharat, Badhe Bharat' mission under SSA has highlighted on the 3 R's: early reading, writing, and renumeracy. The recent the national educational policy has set ambitious target aiming to achieve universal FLN by 2026 (NEP,2020) ^[11]. Dedicatedly NIPUN Bharat is working for ensuring foundational Literacy and Numeracy skills by Grade 3.

Foundational Literacy

Foundational literacy is basic ability and understanding reading, writing, letter knowledge, recognizing word, word meanings, as well as the capacity to explain and make inferences about what has read. Foundational literacy skills comprise several key components encompassing oral Language Development, Reading Comprehension, Concept

about Print, Writing, Vocabulary, Phonological Awareness, Decoding, Reading Fluency, Culture of Reading / Inclination towards Reading (NIPUN Bharat guideline, 2021^[8], p.71-73).

Foundational Numeracy

Foundational Numeracy is basic ability to understand and compute numerical concepts and operations. Foundational Numeracy skills comprise several key components encompassing Pre-Number Concepts, Numbers and Number Operations, Shapes and Spatial Understanding, Measurement, Patterns (NIPUN Bharat guideline, 2021^[8], p.84).

Review Guiding Research Question: What are the significance home environment-related Determinant of Foundational Learning?

Methodology

This study is grounded in a review of existing scholarly literature, drawing upon previously published research papers to explore the research problem. The review relies exclusively on secondary sources, including peer-reviewed journal articles and academic publications. studies published between 2015 and 2025^[3] were considered. This time frame was deliberately chosen to capture recent contributions and evolving perspectives in the field. for analysing the selected literature, the study employed thematic analysis, a widely recognized qualitative technique.

Inclusion criteria

- Research studies published between 2015 and 2025^[3]
- Empirical studies
- Studies relevant to research question

Exclusion Criteria

- Review-based articles (i.e., studies that are themselves based on reviewing existing literature).
- Publications lacking clear relevance to the research focus.

Non-academic sources such as blogs, opinion pieces, and unpublished materials.

Result and Discussion

Table 1

Author	Country	Title
Srinivas <i>et al.</i> ,2025 ^[2]	Outside India	Parental support for foundational literacy and numeracy skills among schoolchildren: A case study from India
Boltiador <i>et al.</i> , 2025 ^[3]	Outside India	Influence Of Home Literacy Practices on The Foundational Literacy and Numeracy Skills of Preschool Learners
Jabanes & Futralan,2025 ^[1]	Outside India	Understanding the Link between Literacy and Numeracy Skills among Primary Pupils
Azubuike <i>et al.</i> ,2024 ^[4]	Outside India	State and wealth inequalities in foundational literacy and numeracy skills of secondary school-aged children in Nigeria: A multilevel analysis
Graven & Jorgensen,2024 ^[5]	Outside India	Early numeracy opportunities through number stories with marginalised families
Santiago & Mustacisa,2024 ^[7]	Outside India	Building the Foundation: How Literacy and Numeracy skills in third grade impact overall academic achievement
Mohapatra, 2024 ^[6]	India	Status of Foundational Literacy and Numeracy in Odisha Study of Perspectives and Practices
Cui <i>et al.</i> ,2021 ^[10]	Outside India	The Influence of Parental Educational Involvement in Early Childhood on 4th Grade Students' Mathematics Achievement
Barham <i>et al.</i> ,2019 ^[12]	Outside India	Assessment of First-Grade Students' Literacy and Numeracy Levels and the Influence of Key Factors
Banerji <i>et al.</i> ,2017 ^[13]	India	The Impact of Maternal Literacy and Participation Programs: Evidence from a Randomized Evaluation in India
Bonifacci <i>et al.</i> ,2016 ^[14]	Outside India	Early Literacy and Numeracy Skills in Bilingual Minority Children: Toward a Relative Independence of Linguistic and Numerical Processing

Socio-economics Status of Family

Socioeconomic status, which includes interrelated elements like household income, religious, social status, occupation, and access to educational resources that collectively shape children's early learning experiences, has a significant and multifaceted impact on the acquisition of foundational knowledge, especially during the primary and early primary stages of education (Jabanes & Futralan,2025; Azubuike *et al.*,2024; Santiago & Mustacisa,2024) ^[1, 5, 7]. Due in large part to differences in access to high-quality learning environments, instructional support, and cognitive stimulation at home, empirical evidence consistently shows that children from low socioeconomic backgrounds typically exhibit lower levels of foundational literacy and numeracy compared to their more advantaged peers.

Family support

Children's foundational learning, especially in early literacy and numeracy is greatly influenced by parental education and involvement (Srinivas *et al.*,2025; Banerji *et al.*,2017, Cui *et al.*,2021; Barham *et al.*,2019) ^[2, 10, 12, 13]. By participating in activities like reading, storytelling, and helping with school-related tasks, educated parents are more likely to foster a stimulating home environment that improves children's foundational learning (Srinivas *et al.*,2025) ^[2].

Spoken language

Many Studies proved spoken language of child at home has played role in foundational learning skills. Many speak a home language that is different from the language used at school, while some students use the same language in both contexts. Previous studies showed bilingual children frequently differ from monolinguals in language-related measures and some number skills linked to verbal abilities (Bonifacci *et al.*, 2016) ^[14].

Home culture

Studies has been demonstrated that home literacy practices significantly improve foundational learning outcomes (Boltiador *et al.*,2025) ^[3]. students from indigenous

backgrounds benefit greatly from home-based, story-inspired engagement strategies, these interventions help achieve equity goals in educational settings where these students often start formal education below grade-level proficiency in mathematics and continue to do so throughout their academic careers (Graven & Jorgensen,2024) ^[5].

Limitation

Even though a number of dimensions of the home environment have been investigated in relation to children's foundational learning skills, the results of various studies are still inconsistent and inconclusive. Furthermore, due to database constraints, language barriers, or accessibility concerns, this review may have overlooked pertinent research and only included a subset of studies that were published within a given time period. Consequently, some important contributions to the field might not have been captured, which could affect the comprehensiveness and generalizability of the findings.

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