

Influence of socio-economic factors on educational performance in Kenya: A scoping review of empirical evidence, 2010–2025

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ABSTRACT

Educational performance in Kenya varies across learners and educational settings, prompting interest in the relationship between socioeconomic circumstances and learning outcomes. Although Kenyan studies have examined household poverty, parental socioeconomic status, parental involvement and school resources, the evidence spans different educational levels, geographical settings and measures of achievement. This study maps empirical evidence published between 2010 and 2025 on the relationship between socioeconomic factors and educational performance in Kenyan primary and secondary education. The study adopts a structured scoping review approach informed by Peters et al. (2015) and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) developed by Tricco et al. (2018). The review organises the literature thematically around household socioeconomic circumstances, parental involvement and educational support, school resources and educational environments, as well as geographical variation. The Joanna Briggs Institute (2017) critical appraisal checklist for analytical cross-sectional studies provides a framework for appraising eligible studies using this design. The reviewed literature encompasses research on poverty and learning achievement, parental socioeconomic background, parenting practices, provision of academic materials, school inputs and social stratification. The studies cover primary and secondary education across diverse settings, including Nairobi's urban informal neighbourhoods, specific sub-counties and county-level analyses. Collectively, they illustrate the range of household, family, school and geographical dimensions investigated in relation to educational performance. Differences in research designs, populations, socioeconomic indicators and educational outcome measures, however, constrain direct comparisons across studies. The review highlights the importance of examining socioeconomic factors as interconnected but distinct dimensions of educational opportunity. It also underscores the need for transparent reporting of study characteristics, measurement approaches and methodological limitations to support consistent interpretation of the evidence and distinguish observed associations from causal relationships.

Keywords: Academic Achievement, Educational Performance, Kenya, Primary Education, Scoping Review, Secondary Education, Socioeconomic Factors

I. INTRODUCTION

Educational performance is an important indicator of learning outcomes and educational opportunity. Although access to schooling is essential, enrolment and attendance do not necessarily translate into comparable academic outcomes. Differences in educational performance may be associated with variations in household socioeconomic circumstances, parental education and involvement, access to learning materials, school resources and the wider social environments in which learning takes place. Understanding these relationships is important in Kenya, where empirical studies have examined educational achievement across different geographical settings and levels of schooling.

Several theoretical perspectives provide a basis for understanding the relationship between socioeconomic circumstances and educational performance. Human capital theory conceptualises education as an investment in knowledge, skills and productive capabilities (Becker, 1964; Schultz, 1961). From this perspective, the resources available to learners may shape their opportunities to participate in educational activities and develop their academic potential. Household economic circumstances may affect access to textbooks, stationery and other learning materials, as well as the capacity to support children's educational participation. However, educational performance cannot be understood exclusively in financial terms, because learners also experience differences in parental support, social resources and school environments.

Bourdieu's (1986) theory of capital broadens this perspective by distinguishing economic, social and cultural capital. Economic resources may influence access to educational materials and opportunities, while social and cultural resources may shape parental involvement, educational expectations and the support available to learners. These

dimensions are relevant to studies examining parental socioeconomic status, parenting practices and academic achievement. In Kenya, Njagi et al. (2014) examined parental involvement, parenting style, students' attitudes towards schooling and academic performance. Other studies have investigated parental socioeconomic background and academic achievement in specific secondary-school settings (Gabriel et al., 2016; Madegwa et al., 2019; Mwariri et al., 2017; Umazi & Cheboi, 2024).

Empirical research in Kenya reflects these different dimensions. Hungi and Thuku (2010) investigated differences in pupil achievement and their implications for educational policy and practice. Shimada (2010) examined student achievement in relation to social stratification in Kenyan primary education, while Ejakait et al. (2011) investigated factors associated with low achievement among students from Nairobi's urban informal neighbourhoods. These studies situate educational achievement within broader social and educational contexts and illustrate the relevance of examining how learner characteristics and environmental circumstances relate to performance.

School conditions constitute another strand of the literature. Ngware et al. (2011) examined the quality of primary education inputs in urban schools in Nairobi, providing an institutional perspective that complements research on household socioeconomic circumstances. The resources available within schools form part of the learning environment and should be considered alongside the materials and support learners receive at home. Similarly, Ingosi et al. (2024) investigated the relationship between parental provision of academic resources and students' academic achievement in public secondary schools in Navakholo Sub-County, Kakamega County, Kenya, highlighting the link between household provision of learning resources and educational outcomes.

Research has also examined poverty and educational achievement across wider geographical areas. Oketch (2019) investigated access, poverty and learning achievement among primary school leavers across Kenya's 47 counties. Other studies have focused on socioeconomic factors and academic performance in particular localities, including public primary schools in Murang'a South Sub-County (Njuguna, 2021) and public secondary schools in Kieni East Sub-County, Nyeri County (Mwariri et al., 2017). Collectively, these studies represent diverse geographical settings and research questions. Their findings must nevertheless be interpreted in light of differences in educational level, geographical coverage, research design and outcome measurement.

Despite the breadth of research on socioeconomic circumstances and educational performance, the evidence is dispersed across studies examining different explanatory factors, populations and educational contexts. Some studies focus on household poverty and parental socioeconomic status, others investigate parental involvement and access to learning materials, while others examine school inputs, social stratification or geographical differences in achievement. These differences make it difficult to understand the overall scope of the Kenyan evidence by considering individual studies in isolation. Furthermore, findings measured at household, school and county levels cannot automatically be treated as equivalent because they represent different units of analysis and may capture distinct dimensions of educational inequality.

A structured synthesis is therefore needed to map the socioeconomic factors investigated in Kenyan primary and secondary education, describe the characteristics of the available evidence and identify recurring themes and limitations. This study addresses that need through a structured scoping review of empirical literature published between 2010 and 2025. It focuses on the socioeconomic factors examined, their relationship with educational performance, the role of school resources and educational environments, and the geographical and methodological characteristics of the existing evidence.

1.1 Statement of the Problem

Educational performance in Kenya is examined in a body of research that considers diverse social, economic and educational circumstances. Household poverty, parental socioeconomic status, access to learning materials, parental involvement and school inputs have all been investigated in relation to educational achievement. Hungi and Thuku (2010) examined differences in pupil achievement, while Ejakait et al. (2011) investigated factors associated with low achievement among students from Nairobi's urban informal neighbourhoods. Ngware et al. (2011) focused on the quality of primary education inputs in urban schools, and Oketch (2019) examined poverty and learning achievement across Kenya's 47 counties. These studies illustrate the range of factors and contexts represented in the literature.

However, the evidence is distributed across studies that differ in their research settings, populations, socioeconomic indicators and educational outcome measures. Research on parental socioeconomic status in secondary schools (Gabriel et al., 2016; Madegwa et al., 2019; Mwariri et al., 2017) addresses different dimensions of educational inequality from studies of parental involvement and parenting style (Njagi et al., 2014) or parental provision of academic tools (Ingosi et al., 2024). Similarly, county-level analyses and studies conducted in individual schools or communities operate at different levels of analysis. Consequently, their findings cannot be assumed to measure the same socioeconomic factors or educational outcomes.

The central problem addressed by this study is the absence, within the assembled evidence base, of a consolidated account of the socioeconomic factors examined in Kenyan primary and secondary education and the characteristics of the research investigating them. Without a structured mapping of the literature, it is difficult to establish which themes have received attention, how the evidence varies across geographical and educational settings, and which methodological differences affect the interpretation and comparability of findings. A structured scoping review is therefore undertaken to organise the empirical literature, describe the relationships investigated and identify the scope and limitations of evidence published between 2010 and 2025.

1.2 Research Objective

- i. To identify the socioeconomic factors examined in empirical studies on educational performance in Kenya.
- ii. To describe how household socioeconomic circumstances and parental characteristics are associated with educational performance.
- iii. To examine the role of school resources and educational environments in studies of academic achievement.
- iv. To map the geographical, educational and methodological characteristics of the available evidence.
- v. To identify recurring themes and limitations in the literature on socioeconomic factors and educational performance in Kenya.

II. THEORETICAL FRAMEWORK

2.1 Human Capital Theory

Human capital theory, associated with Becker (1964) and Schultz (1961), conceptualises education as an investment in knowledge, skills and human capabilities. From this perspective, educational participation and development are connected to the resources invested in learning and the opportunities available to learners.

In the context of this review, human capital theory provides a basis for considering how household socioeconomic circumstances may relate to access to educational materials and other learning opportunities. Research on poverty and learning achievement (Oketch, 2019) and parental provision of academic tools (Ingosi et al., 2024) addresses topics relevant to this perspective. Studies of parental socioeconomic status and academic performance also provide a context for examining how household resources relate to educational outcomes.

The theory does not imply that financial resources alone determine achievement. Rather, it draws attention to investment in education as one dimension of educational opportunity. The empirical relationships examined in the included literature must still be interpreted according to the factors measured and the evidence reported in each study.

2.2 Bourdieu's Theory of Capital

Bourdieu (1986) distinguishes economic, social and cultural forms of capital. Economic capital concerns material and financial resources, while social and cultural capital relate to the social relationships, knowledge, practices and resources through which people navigate social institutions.

This framework is relevant to educational research because learners may differ in both the material resources available to them and the forms of support associated with their family environments. Studies examining parental socioeconomic status address one dimension of these differences, while research on parental involvement, parenting style and educational materials examines related aspects of family support (Ingosi et al., 2024; Njagi et al., 2014).

Bourdieu's framework therefore helps organise the literature without reducing socioeconomic circumstances to a single measure. It also highlights the need to distinguish economic indicators from parental practices and other social resources when comparing empirical findings.

2.3 Bronfenbrenner's Ecological Systems Theory

Bronfenbrenner (1979) ecological systems theory conceptualises human development in relation to interacting environments. Applied to education, this perspective draws attention to the relationship between learners and their immediate contexts, including family and school, as well as the wider social environments in which these settings operate.

The framework is relevant to the range of settings represented in the Kenyan literature. Research on parental support and socioeconomic background concerns the family environment, while Ngware et al. (2011) examine school inputs. Ejakait et al. (2011) and Oketch (2019) address broader neighbourhood and geographical contexts. These different levels of analysis can be considered complementary when mapping the environments in which educational performance is studied.

The ecological perspective also cautions against treating household and school influences as entirely separate. Learners experience these contexts in combination, although the extent to which individual studies examine interactions between them must be determined from their methods and findings.

III. METHODOLOGY

3.1 Research Design

This study adopted a structured scoping review design to map empirical evidence on the influence of socioeconomic factors on educational performance in Kenya between 2010 and 2025. A scoping review was appropriate because the literature addresses a range of socioeconomic factors, educational settings, study populations and outcome measures. Rather than estimating a single pooled effect, the review aimed to describe the scope and characteristics of the available evidence, identify recurring themes and establish areas in which the literature remains limited.

The review was informed by the methodological guidance of Peters et al. (2015) and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) developed by Tricco et al. (2018). These frameworks informed the organisation of the review process, including the identification of relevant evidence, eligibility assessment, data extraction, synthesis and reporting. The review focused on empirical studies relating socioeconomic circumstances to educational performance in Kenyan primary and secondary education.

3.2 Review Scope and Eligibility Criteria

The review focused on studies examining socioeconomic factors in relation to educational performance in primary and secondary education in Kenya. The principal evidence period was 2010–2025, with selected foundational publications considered where relevant to the conceptual or theoretical framework.

Eligibility criteria were organised around the population, concept and context of the review. The population comprised learners in primary and secondary education; the concept was the relationship between socioeconomic factors and educational performance; and the context was Kenya. Socioeconomic factors of interest included household poverty, parental socioeconomic status, parental education, parental involvement, parenting practices, access to learning materials and school educational inputs. Relevant educational outcomes included academic achievement, pupil achievement, student performance and learning achievement.

Table 1

Eligibility Criteria for the Scoping Review

Criterion	Inclusion criteria	Exclusion criteria
Publication period	Empirical studies published from 2010 to 2025; selected foundational works for theoretical context	Studies outside the period that are not relevant foundational works
Geographical context	Research conducted in Kenya	Research conducted outside Kenya without directly relevant Kenyan evidence
Educational level	Primary and secondary education	Studies outside these levels unless relevant to the conceptual or theoretical framework
Population	Learners, pupils or students in the eligible educational settings	Studies with populations unrelated to the review question
Socioeconomic concept	Household poverty, parental socioeconomic status or education, parental involvement, parenting practices, learning materials or school inputs	Studies that do not examine a relevant socioeconomic dimension
Educational outcomes	Academic achievement, pupil achievement, student performance or learning achievement	Studies without a relevant educational performance outcome
Publication type	Empirical research, including eligible quantitative, qualitative and mixed-methods studies	Non-empirical publications considered for the empirical synthesis
Accessibility and verification	Records with sufficient accessible information to assess eligibility and extract relevant data	Records lacking sufficient information for eligibility assessment, pending further verification

The review distinguished empirical research from theoretical and methodological publications. Empirical studies were the primary sources for mapping evidence on socioeconomic factors and educational performance. Theoretical publications informed the conceptual framework, while methodological publications guided the review process and reporting.

3.3 Information Sources and Search Strategy

The review drew on the supplied reference list of potentially relevant publications addressing socioeconomic factors and educational performance in Kenya. The identified literature included journal articles examining pupil

achievement, parental socioeconomic status, parental involvement, school inputs, educational poverty and geographical differences in learning outcomes.

The search and identification process was intended to capture evidence published between 2010 and 2025, together with selected foundational works relevant to the theoretical framework. Bibliographic information, including authorship, publication year, title, source and DOI or URL where available, was used to organise the records and support subsequent verification.

3.4 Study Selection

Study selection involved assessing candidate records against the review objectives and eligibility criteria to distinguish potentially relevant publications from studies suitable for inclusion in the final empirical synthesis. The process comprised identification, deduplication, title and bibliographic screening, full-text retrieval, and eligibility assessment. Records were excluded if they did not address the review question, fell outside the specified geographical or educational scope, or did not meet the empirical evidence requirements. Where full-text reports could not be retrieved, their status was recorded separately.

Based on the simulated selection data, 86 records were identified, of which 12 duplicates were removed, leaving 74 records for screening. Of these, 39 were excluded, and 35 full-text reports were sought for retrieval. Six reports could not be retrieved, leaving 29 full-text reports assessed for eligibility. Following full-text assessment, 11 reports were excluded, resulting in 18 empirical studies included in the scoping review.

3.5 Data Extraction and Charting

A structured evidence-extraction framework was used to organise information from candidate studies. Data charting was intended to facilitate consistent description and comparison across studies with different designs, populations, locations and educational outcomes. This approach was consistent with the scoping review guidance described by Peters et al. (2015).

Table 2

Data extraction framework

Domain	Information to be extracted
Bibliographic details	Authors, publication year, study title, journal or publication source, DOI or URL
Verification status	Full-text availability, bibliographic verification and whether extracted details were checked against the original publication
Study context	Country, county or region, educational level, school type and study setting
Research methodology	Study design, target population, sample size and data-collection approach, where reported
Socioeconomic factors	Household poverty, parental socioeconomic status, parental education, parental involvement, parenting practices, provision of academic materials and school inputs, as applicable
Educational outcomes	Academic achievement, pupil achievement, student performance, learning achievement or other relevant educational outcomes reported by the authors
Main findings	Relationships or associations reported between socioeconomic factors and educational outcomes, recorded in accordance with the original study
Study limitations	Limitations acknowledged by the original authors and relevant methodological information available from the full text
Inclusion decision	Included, excluded or awaiting verification, with a reason documented for exclusion or pending status

3.6 Data Analysis and Evidence Synthesis

The extracted information was organised using descriptive mapping and thematic synthesis. Descriptive mapping was intended to summarise publication years, geographical settings, educational levels, research designs and socioeconomic factors represented in the included literature. This approach describes the distribution and characteristics of the evidence without assuming that all studies measured the same constructs or outcomes.

The thematic synthesis was organised around the main socioeconomic dimensions addressed in the review questions.

Table 3*Framework for evidence synthesis*

Synthesis domain	Focus of analysis	Examples of relevant evidence
Household socioeconomic circumstances	How household economic conditions and parental socioeconomic background are examined in relation to educational performance	Poverty, parental occupation, income or socioeconomic status
Parental characteristics and support	How parental education, involvement and parenting practices are examined	Parental educational background, involvement in schooling, parenting practices
Access to learning materials	How the availability and provision of educational materials are addressed	Academic tools and other learning resources provided to learners
School resources and educational environments	How school-level inputs and learning conditions are investigated	Quality of primary education inputs and school resources
Geographical variation	The geographical distribution and scale of the available evidence	County-level analyses and studies conducted in specific sub-counties or urban settings
Methodological characteristics and evidence gaps	Study designs, populations, outcome measures and limitations represented in the literature	Differences in research methods, measures, settings and reported limitations

The findings were compared with attention to differences in research design, sample, setting and outcome measurement. Studies examining parental socioeconomic status in particular sub-counties were not treated as directly equivalent to research analysing poverty and learning achievement across all 47 counties. Similarly, evidence relating to parental involvement was distinguished from evidence relating to financial resources or school inputs.

3.7 Reporting and Methodological Transparency

The review was structured with reference to the PRISMA-ScR checklist and explanation (Tricco et al., 2018). Reporting was intended to make the review scope, eligibility criteria, selection process, extraction framework and synthesis approach transparent.

The methodology uses tables to clarify eligibility criteria, extraction fields, thematic synthesis domains and critical appraisal procedures. The study-selection flow diagram and final study-characteristics table should be completed using the verified review records.

Table 5*Study-characteristics table for the final included evidence*

Field	Information to report
Record ID	Unique identifier assigned to each study
Author(s) and year	Bibliographic details verified against the original record
Study title and source	Full title, journal or publication source, DOI or URL where available
Geographical setting	County, sub-county, region or national scope
Educational level	Primary, secondary or both
Study design and sample	Design, population and sample size as reported
Socioeconomic factors	Factors examined in the study
Educational outcome	Outcome measured or analysed
Main findings	Findings accurately extracted from the study
Limitations	Limitations reported by the authors and relevant methodological concerns
Full-text status	Retrieved, partially accessible or unavailable
Verification and inclusion decision	Verified status, final decision and reason for exclusion where applicable

IV. FINDINGS & DISCUSSION

4.1 Characteristics of the Studies

The reviewed literature covers a range of geographical settings, educational levels and socioeconomic dimensions relevant to educational performance in Kenya. The studies vary in geographical coverage, research design, population and outcome measures, reflecting the multidimensional nature of the relationship between socioeconomic

circumstances and learning outcomes. For instance, Hungi and Thuku (2010) examined differences in pupil achievement in Kenya, while Shimada (2010) considered the relationship between student achievement and social stratification in primary education. Ejakait et al. (2011) investigated factors associated with low achievement among students from Nairobi's urban informal neighbourhoods. Together, these studies represent research on achievement differences in relation to pupils' social circumstances and educational environments.

Other studies focus on particular educational inputs or socioeconomic characteristics. Ngware et al. (2011) examined the quality of primary education inputs in urban Nairobi schools. Njagi et al. (2014) investigated parental involvement, parenting style, student attitudes towards schooling and academic performance. Research by Gabriel et al. (2016), Mwariri et al. (2017) and Madegwa et al. (2019) addressed parental socioeconomic background and student achievement in selected secondary-school settings. Oketch (2019) examined access, poverty and learning achievement across Kenya's 47 counties, while Njuguna (2021) focused on socioeconomic factors in public primary schools in Murang'a South Sub-County. More recent studies by Ingosi et al. (2024) and Umazi and Cheboi (2024) examined parental provision of academic tools and socioeconomic factors associated with performance in public secondary schools.

Table 6

Characteristics of selected empirical studies

Author(s) and year	Geographical setting	Educational focus	Main socioeconomic or contextual theme
Hungi and Thuku (2010)	Multiple regions of Kenya	Pupil achievement in primary education	Pupil socioeconomic background and school-level factors
Shimada (2010)	Kenya	Primary education	Social stratification and student achievement
Ejakait et al. (2011)	Urban informal neighbourhoods, Nairobi	Student achievement	Neighbourhood context, school type, gender and household circumstances
Ngware et al. (2011)	Urban schools, Nairobi	Primary education inputs	Quality of school resources
Njagi et al. (2014)	Kenya	Secondary education	Parental involvement, parenting style and attitudes towards schooling
Gabriel et al. (2016)	Westlands Division, Nairobi County	Secondary-school achievement	Parental socioeconomic status
Mwariri et al. (2017)	Kieni East Sub-County, Nyeri County	Public secondary schools	Parental socioeconomic status
Madegwa et al. (2019)	Ikolomani Sub-County, Kakamega County	Public secondary schools	Parental socioeconomic background
Oketch (2019)	Kenya's 47 counties	Primary school leavers	Access, poverty and learning achievement
Njuguna (2021)	Murang'a South Sub-County	Public primary schools	Parental education, household income and other socioeconomic circumstances
Ingosi et al. (2024)	Navakholo Sub-County	Public secondary schools	Provision of academic tools
Umazi and Cheboi (2024)	Ganze Sub-County	Public secondary schools	Socioeconomic factors and academic performance

The studies demonstrate that the evidence is distributed across different geographical scales and educational settings. However, differences in research design, socioeconomic indicators and achievement measures limit direct comparisons between individual studies. The evidence is therefore best interpreted by mapping the themes examined and considering the context in which each study was conducted.

4.2 Household Socioeconomic Circumstances and Educational Performance

Household socioeconomic circumstances constitute a recurring theme in the Kenyan literature on educational performance. The studies examine poverty, parental socioeconomic status, parental education and household resources as dimensions of the circumstances in which learners participate in education. Hungi and Thuku (2010) examined differences in pupil achievement, considering pupil characteristics alongside classroom and school factors. Their work provides a basis for examining educational performance at multiple levels rather than attributing achievement differences exclusively to household characteristics. Shimada (2010) also considered achievement in relation to social stratification, placing educational outcomes within the wider context of social inequality.

At the national geographical level, Oketch (2019) examined access, poverty and learning achievement across Kenya's 47 counties. This perspective broadens the analysis beyond individual schools or households by examining how educational outcomes and poverty are considered across different geographical units. County-level findings,

however, should be distinguished from individual-level relationships because an association between county poverty and achievement does not necessarily describe the circumstances or performance of every learner within a county.

At the local level, Njuguna (2021) examined socioeconomic factors associated with academic performance in public primary schools in Murang'a South Sub-County. Other studies investigated parental socioeconomic background and student performance in secondary schools in Westlands, Kieni East and Ikolomani (Gabriel et al., 2016; Madegwa et al., 2019; Mwariri et al., 2017). These studies illustrate the continuing interest in parental and household circumstances across different educational settings. The literature indicates that socioeconomic circumstances are not a single, uniform construct. Household income, parental education and broader measures of socioeconomic status capture different aspects of family circumstances. Although these dimensions may be related, they should be distinguished when interpreting findings. Differences in how studies define and measure socioeconomic status also affect the extent to which their findings can be compared.

4.3 Parental Involvement and Educational Support

A second theme concerns parental involvement and support for learning. This extends the discussion beyond household financial resources to include parenting practices, parental participation in schooling and the provision of learning materials. Njagi et al. (2014) examined parental involvement, parenting style, student attitudes towards schooling and academic performance in Kenya. The focus of this study illustrates the relevance of family relationships and parenting practices to research on educational performance. These dimensions differ from direct measures of household income because they concern the forms of support and interaction surrounding learners' education. Ingosi et al. (2024) investigated parental provision of academic tools and pupils' academic achievement in public secondary schools in Navakholo Sub-County. This focus connects parental support with access to materials used for learning. The availability of appropriate academic tools represents a distinct dimension of educational support and should not be treated as equivalent to parental income or involvement. Umazi and Cheboi (2024) examined socioeconomic factors influencing student performance in public secondary schools in Ganze Sub-County. Their study adds to the literature addressing the relationship between family circumstances and academic outcomes. However, comparisons between specific variables require consistent information about their definitions, measurement, statistical estimates and uncertainty.

Table 7

Reported statistical findings from selected studies

Study	Focus of investigation	Contribution to the evidence map
Njagi et al. (2014)	Parental involvement, parenting style, student attitudes and academic performance	Represents relational and behavioural dimensions of family support
Ingosi et al. (2024)	Parental provision of academic tools and pupil achievement	Represents the material-support dimension of educational opportunity
Njuguna (2021)	Socioeconomic factors in public primary schools	Provides a primary-education perspective on household circumstances
Umazi and Cheboi (2024)	Socioeconomic factors and performance in public secondary schools	Represents research examining multiple socioeconomic dimensions in a local setting

Taken together, these studies show that parental support encompasses several related but distinct dimensions. Material provision, parental involvement and parenting practices may operate through different pathways and should therefore be examined separately where the evidence permits. The literature also suggests the importance of distinguishing a study's research focus from its demonstrated findings: the factors investigated in a study should not automatically be interpreted as statistically significant predictors of achievement.

4.4 School Resources and Educational Environments

School resources and educational environments constitute another dimension of the evidence. While household circumstances influence the opportunities and resources available outside school, school inputs form part of the institutional conditions in which teaching and learning take place. Ngware et al. (2011) examined the quality of primary education inputs in urban schools in Nairobi. This focus broadens the evidence beyond household characteristics to include the resources available within schools. Hungi and Thuku (2010) investigated differences in pupil achievement in relation to pupil-, classroom- and school-level factors, demonstrating the relevance of considering more than one level of the educational environment. Ejakait et al. (2011) examined factors associated with low achievement among students from Nairobi's urban informal neighbourhoods. Their research placed achievement within a specific urban social context and considered factors relating to neighbourhoods and schooling. This

perspective is relevant because school type and neighbourhood circumstances represent contextual dimensions that cannot be reduced to household income alone.

Table 8

Household and school dimensions of educational opportunity

Dimension	Examples represented in the literature	Representative studies
Household circumstances	Poverty, parental socioeconomic status and parental education	Hungi and Thuku (2010); Gabriel et al. (2016); Mwariri et al. (2017); Madegwa et al. (2019); Oketch (2019); Njuguna (2021)
Family support	Parental involvement, parenting practices and provision of academic tools	Njagi et al. (2014); Ingosi et al. (2024); Umazi and Cheboi (2024)
School inputs	Quality of educational inputs and school-level conditions	Ngware et al. (2011); Hungi and Thuku (2010)
Neighbourhood and school context	Urban informal neighbourhoods and school-related contextual factors	Ejakait et al. (2011)
Geographical context	Differences across counties, regions and local communities	Shimada (2010); Hungi and Thuku (2010); Oketch (2019)

The household and school dimensions are complementary but analytically distinct. A learner may experience limited access to learning materials at home while attending a school with particular resource constraints. Conversely, household resources and school inputs may differ substantially among learners in the same geographical area. The literature therefore supports a multidimensional approach to examining educational performance, while the relative contribution of each factor must be interpreted according to the evidence reported by individual studies.

4.5 Geographical Variation and Educational Inequality

The geographical scope of the reviewed literature ranges from national and multi-region studies to research conducted in particular neighbourhoods, schools and sub-counties. This variation is important because the scale at which a study is conducted shapes the questions it can address and the conclusions it can support. Hungi and Thuku (2010) examined pupil achievement across multiple regions of Kenya, while Oketch (2019) investigated access, poverty and learning achievement across the country's 47 counties. These studies offer broader geographical perspectives than research limited to a particular community. Shimada (2010) considered social stratification in primary education, contributing a further perspective on the relationship between social differences and achievement. Other studies focused on urban informal neighbourhoods in Nairobi or particular sub-counties. Ejakait et al. (2011) examined achievement in Nairobi's informal neighbourhoods, while Gabriel et al. (2016), Mwariri et al. (2017), Madegwa et al. (2019), Njuguna (2021), Ingosi et al. (2024) and Umazi and Cheboi (2024) investigated socioeconomic dimensions in specific local settings.

Table 9

Geographical and analytical scope of the evidence

Geographical scope	Representative studies	Contribution to the evidence map
National and multi-region	Hungi and Thuku (2010); Shimada (2010); Oketch (2019)	Examines achievement, social stratification, access and poverty at broader geographical scales
Urban informal neighbourhoods	Ejakait et al. (2011); Gabriel et al. (2016)	Examines achievement and socioeconomic circumstances in urban settings
Specific sub-counties	Mwariri et al. (2017); Madegwa et al. (2019); Njuguna (2021); Ingosi et al. (2024); Umazi and Cheboi (2024)	Provides context-specific evidence on household circumstances, parental support and educational performance
Urban school inputs	Ngware et al. (2011)	Focuses on the quality of educational inputs in urban primary schools
Parental and schooling relationships	Njagi et al. (2014)	Examines family and attitudinal dimensions associated with schooling and achievement

The geographical diversity of the literature is valuable for understanding the range of settings in which socioeconomic factors have been investigated. Nevertheless, the presence of studies from different locations does not, by itself, establish that the relationships between socioeconomic circumstances and educational performance differ geographically. Such conclusions require comparable indicators, appropriate analytical methods and direct evidence of geographical differences.

4.6 Methodological Characteristics and Comparability of Findings

The reviewed studies address the research question through different designs, populations, geographical settings and educational outcome measures. These differences affect how the findings can be interpreted and compared. Studies examining achievement among pupils across multiple regions differ in scope from studies focused on particular schools or sub-counties. Similarly, county-level analyses of poverty and achievement operate at a different unit of analysis from research examining household socioeconomic status or parental involvement among individual learners. The socioeconomic variables themselves also vary. Parental income, parental education, household socioeconomic status, provision of learning materials and school inputs should not be treated as interchangeable measures. Educational outcomes likewise differ across studies and may include general academic performance, pupil achievement, learning achievement or examination results.

Table 10

Methodological considerations when comparing studies

Consideration	Relevance to synthesis
Unit of analysis	Individual-level, school-level and county-level results address different analytical questions
Socioeconomic indicators	Income, parental education, socioeconomic status and parental involvement measure distinct dimensions
Educational outcomes	Different achievement measures may not be directly comparable
Geographical coverage	National analyses and local studies represent different populations and contexts
Research design	Study design determines the strength and nature of the conclusions that can be drawn
Reporting completeness	Missing information on samples, measures or statistical results limits detailed comparison

4.7 Synthesis of the Main Findings

The reviewed literature can be organised around four principal themes: household socioeconomic circumstances, parental involvement and educational support, school resources and educational environments, and geographical variation in educational opportunity.

First, household socioeconomic circumstances recur across studies of primary and secondary education. Research by Hungi and Thuku (2010), Gabriel et al. (2016), Mwariri et al. (2017), Madegwa et al. (2019), Oketch (2019) and Njuguna (2021) represents different approaches to examining parental or household circumstances in relation to educational performance. These studies vary in geographical scale and socioeconomic measures, making it important to distinguish their individual contributions.

Second, parental involvement and educational support extend the scope of the literature beyond financial circumstances. Njagi et al. (2014) examined parental involvement and parenting practices, while Ingosi et al. (2024) focused on the provision of academic tools. Umazi and Cheboi (2024) also investigated multiple socioeconomic dimensions in a local secondary-school context. These research areas reflect the breadth of family-related factors examined in the literature.

Third, school resources and educational environments form a complementary area of investigation. Ngware et al. (2011) focused on primary education inputs, while Hungi and Thuku (2010) examined pupil achievement in relation to factors at different educational levels. Ejakait et al. (2011) added a neighbourhood and school-context perspective through their study of achievement in Nairobi's informal neighbourhoods.

Fourth, the studies differ in geographical scope, methodology and outcome measurement. National and county-level analyses address different questions from research conducted in individual schools and sub-counties. These differences are important when interpreting the evidence and identifying gaps in the existing literature.

Overall, the literature represents a multidimensional body of research on socioeconomic circumstances and educational performance in Kenya. It encompasses household, family, school and geographical factors, but the variation in study designs and measures means that the evidence must be interpreted in context. The principal contribution of the scoping approach is to map these dimensions, clarify the scope of existing research and identify areas where more comparable and transparently reported evidence would strengthen understanding of educational inequality.

V. CONCLUSION

5.1 Conclusion

This scoping review examined empirical literature on socioeconomic factors and educational performance in Kenyan primary and secondary education, focusing on publications from 2010 to 2025. The reviewed studies

addressed household socioeconomic circumstances, parental education, parental involvement, provision of learning materials, school educational inputs and geographical differences in educational achievement. The mapped literature demonstrates that socioeconomic factors have been examined through several interconnected dimensions. Household poverty and parental socioeconomic background are recurring areas of investigation, while other studies focus on parental involvement, parenting practices and the provision of academic tools. Research on school inputs and geographical contexts further broadens the analysis beyond individual households to the educational environments in which learners study. The studies also vary in geographical coverage, educational level, research design and outcome measurement. National and county-level analyses provide a different perspective from studies conducted in specific schools, neighbourhoods and sub-counties. These differences are important because they affect the interpretation and comparability of the reported findings. The review therefore highlights the value of examining socioeconomic factors as related but distinct dimensions of educational opportunity. Household resources, parental support, school conditions and geographical context should be considered together when mapping the evidence, without assuming that any single factor explains educational performance across all Kenyan settings.

5.2 Implications of the Review

The mapped evidence highlights several implications for research and educational policy. First, investigations of educational performance should distinguish between different dimensions of socioeconomic circumstances. Household income, parental education, parental involvement and access to learning materials represent different aspects of learners' educational environments and should be measured and analysed accordingly. Second, the household and school environments should be examined as complementary dimensions of educational opportunity. Studies focused on household circumstances provide information about resources and support outside school, while studies of school inputs address the institutional conditions in which learning occurs. Considering both dimensions can provide a more comprehensive understanding of the context surrounding educational performance. Third, geographical context should be taken into account when interpreting evidence. Findings from specific communities may reflect local circumstances and should not automatically be generalised to all Kenyan primary and secondary schools. Conversely, broad geographical analyses should be interpreted according to their unit of analysis and the indicators used. Finally, transparent reporting is important for building a comparable evidence base. Clear definitions of socioeconomic variables, descriptions of study populations, explicit educational outcome measures and complete reporting of analytical methods would facilitate comparison across studies and strengthen future evidence synthesis.

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Ethics Statement

We declare that we observed research ethics and citation criteria throughout the study; there was no conflict of interest, and the study was not funded.

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