The Influence of Gender Roles on Access to Basic Education in Turkana Central Sub-County Kenya

John Yenjela Nyongesa[1], Dr. Lusire Lumumba[2], Dr. Susan Ouko[3]

[1]MSW School of Education and Social Sciences Department of Arts and Social Sciences Turkana University College, Kenya

[2]PhD School of Education and Social Sciences Department of Arts and Social Sciences Turkana University College, Kenya

[3]PhD School of Education and Social Sciences Department of Teacher Education Turkana University College, Kenya

ABSTRACT

Over the years, Education for All, as one of the universal sustainable development goals, has continued to be a vital priority for communities and governments. Studies, however, report poor access to primary education. The study examined the socio-cultural factors that influence access to basic education in Turkana Central Sub-County. The purpose of this study was to investigate socio-cultural factors that influence access to basic education in Turkana Central Sub-County. focusing on three key variables: gender roles, Perception of caregivers on education and family structures. The study was guided by Urie Bronfenbrenner's Ecological Systems Theory (1979), which emphasizes the importance of various environmental layers from the immediate family to broader societal norms on individual development. A mixed-method research design was employed. The study targeted a population of 172 respondents, of whom 86 were Primary school class teachers, 86 caregivers, and 12 Key informants defined by positions as Sub-County education officers, Sub-County social services officers, and Local Area Chiefs. The research employed a purposive sampling method to get a sample of 120 participants. Qualitative and Quantitative data were collected using questionnaires and interview schedules. The researcher engaged 10% of the targeted population in the pilot study conducted in Turkana West Sub-County. A content validity rating scale assessed the items' relevance to the research objectives. Cronbach's Alpha was adapted to determine instruments' reliability. Numerical data obtained from questionnaires was coded, input, and analyzed using the SPSS version 27. Qualitative data from open-ended questions and structured interviews were categorized into relevant themes and patterns for the study. Quantitative data were analyzed using descriptive statistics, including frequencies and percentages, followed by the inferential statistic Chi-square. The study found that gender roles significantly influence educational access, rejecting the null hypothesis with a Chi-square value of 6.465. Secondly, perceptions of caregivers towards education, including their attitudes and socio-cultural barriers, also played a crucial role, as indicated by a Chi-square value of 9.219, demonstrating a direct relationship between caregiver involvement and children's school access. Finally, the research revealed that family structures, such as household size and caregivers' education levels, significantly affect educational opportunities, rejecting the null hypothesis with a Chi-square value of 8.5427. The study concluded that there is a significant relationship between

socio-cultural factors and access to basic education. The study recommends capacity building the community to embrace practices that enhance access to basic education. The findings may provide valuable insights for educational policy-makers in developing targeted interventions to address sociocultural barriers and to improve access to basic education for all.

Keywords: Basic Education, Caregivers' Perception, Family Structure, Gender Roles Socialization, Socio-Cultural Factors

1.1 Background to the Study

Access to basic education refers to the ability of children to enroll, attend, and remain in school until they complete the primary level (Kim and Wang, 2023). According to UNESCO (2021), education is a fundamental human right and is essential for personal and societal development. Access to education is typically evaluated using indicators such as enrollment rates, which measure the proportion of school-age children attending school; attendance rates, which track students' regular participation; and dropout rates, indicating the percentage of students who do not complete their primary education. In this study, access to basic education is understood as the extent to which children in Turkana Central Sub-County can enroll, attend, and complete primary school education. This definition underscores the systemic and social barriers that affect educational participation, including those related to socio-cultural factors, cultural norms, and family attitudes. Socio-cultural factors encompass societal norms, values, beliefs, and structures that shape community behaviors and organizations (Gonzalez & Birnbaum-Weitzman, 2020). These factors include gender roles, caregivers' perceptions, and family structures, all of which affect an individual's experience and opportunities in education. Socio-cultural dynamics play a significant role in shaping how education is valued and accessed, often determining whether children, particularly girls, are permitted or encouraged to pursue schooling (Njuguna, Mwangi, and Kariuki, 2022).

Globally, despite advancements in education access, challenges remain prevalent. UNESCO's Global Education Monitoring Report (2023) reports a troubling increase in the number of out-of-school children and youth, with 6 million more missing educations since the year 2020. This rise brings the global total to approximately 250 million young people denied the essential right to learn, highlighting a significant challenge in fulfilling educational equity on a global scale. In regions like South Asia, these issues are exacerbated as cultural traditions often intersect with livelihood constraints, impacting educational access, especially for girls. Gonzalez and Birnbaum-Weitzman, (2020) further emphasize that attitudes toward gender and education within societies directly affect school attendance and retention. This current study aimed at identifying socio-cultural factors affecting children's access to basic education.

Regionally, Sub-Saharan Africa faces persistent educational access challenges due to entrenched gender norms, socio-political instability, and the lingering effects of colonial-era education systems (UNICEF, 2023). Recent studies indicate that despite global efforts to improve enrollment, Sub-Saharan Africa remains home to some of the highest rates of out-of-school children (UNESCO, 2021). For example, deeply rooted cultural practices, such as early marriage and child labor, continue to reduce school participation, particularly for girls (UNICEF, 2023). Additionally, economic disparities and crises, such as climate change and conflict, exacerbate the educational gap across the region. These systemic issues contribute to declining enrollment rates in several countries, highlighting the need for targeted interventions. This study examines the impact of socio-cultural factors on access to basic education in Turkana Central Sub-County.

Nationally, Kenya has shown commitment to the Education for All initiative, resulting in improvements in school enrollment. However, disparities remain, particularly in arid and semi-arid lands (ASALs). Significant challenges regarding both access to primary education and the transition of students between educational stages are notably high (Ministry of Education, 2020; UNESCO, 2021). The Basic Education Statistics Booklet (2020) reports a significant drop in school progression rates, notably between pre-primary levels. This study investigated how socio-cultural factors affect primary education access in Turkana Central Sub-county, seeking to understand the underlying barriers that contribute to this educational disparity and hinder the fulfilment of Kenya's goal for universal basic education.

Turkana Central Sub-County exemplifies these disparities with an illiteracy rate estimated at 82% (KNBS, 2019) and some of the lowest national school enrollment and completion rates. Turkana County, like other ASAL counties in Kenya, has persistently struggled with access to education, receiving minimal stakeholders' attention to remedying the situation (Wanjala, 2013). A 2018 gender analysis revealed that Turkana had a national enrollment rate below 10% and on a national level, boys have had higher enrolment rates than girls since 2014 (Ministry of Education, 2018). The pastoralist lifestyle and cultural practices within the community often prioritize livelihood activities over schooling, contributing to low attendance and retention (Ng'asike, 2014). This study explored how socio-cultural factors and social status affect access to primary education in Turkana Central Sub-County.

Proxies of socio-cultural factors explored in this study include gender roles, perception of caregivers, and family structures. Gender roles, defined as the expected behaviors and responsibilities assigned to individuals based on their gender (Schultz & Weitzman, 2021), often result in educational disparities. In traditional communities like Turkana, education is frequently prioritized for boys, while girls are tasked with domestic responsibilities, leading to lower school enrollment and retention rates (USAID NAWIRI, 2021). Perceptions of caregivers also play a significant role in determining children's school participation. Research indicates that when caregivers value education positively, children are more likely to attend and complete school (Kim & Wang, 2023). Conversely, limited awareness or prioritization of formal education in Turkana Central can result in children foregoing school for livelihood or cultural reasons (Ezekiel, Kenei and Githui, 2024). Lastly, family structures affect access to education, with extended family models in Turkana often redistributing responsibilities in a way that hinders regular school attendance. When older children are needed for labor or caregiving roles, their participation in school may suffer (Ng'asike, 2014). Additionally, families with limited livelihood resources may prioritize immediate survival needs over long-term educational investments (Negussie, Finegood and Hewlett, 2019).

This study adopted an interpretivism paradigm, emphasizing the understanding of subjective experiences and socio-cultural contexts, making it well-suited to the research problem. Interpretivism aligned with the study's objectives of exploring the nuanced influence of socio-cultural factors such as gender roles, caregiver perceptions, and family structures on educational access in Turkana Central Sub-County. By recognizing the socially constructed nature of reality and the importance of context, this paradigm enabled the researcher to delve into the lived experiences of caregivers and teachers, capturing the socio-cultural dynamics that shaped educational outcomes. The study employs mixed methods, using qualitative interviews to gather deep insights into participants' perspectives and quantitative tools to validate observed patterns. This philosophical approach ensures a comprehensive understanding of the barriers to education, providing evidence-based insights to inform culturally relevant interventions.

Understanding these socio-cultural factors is essential for policymakers and educators aiming to create interventions that address educational disparities in regions like Turkana Central Sub-County and advance

Kenya's goal for universal basic education. Therefore, it is against this background that the researcher sought to examine the sociocultural factors that influence access in Turkana Central Sub-County, Kenya.

1.2 Statement of the Problem

Persistent socio-cultural barriers can be significantly associated with limited children's access to basic education in Turkana Central Sub-County. These barriers may include deeply ingrained gender roles, perceptions of caregivers, and varying family structures, all of which influence children's access to basic education. Drawing on Bronfenbrenner's Ecological Systems Theory, these sociocultural factors are seen as part of a broader social ecology where each layer from family to community interacts to shape children's educational opportunities (Hong, 2023). In the context of basic education, access to education is not solely a matter of availability but is profoundly influenced by these multi-layered socio-cultural dynamics. Intervention programs such as UNICEF's Back to School initiative and the Ministry of Education's Public Campaign Programme have aimed to address the high rates of out-of-school children by promoting enrollment and retention in schools. However, these efforts have yet to yield the desired outcomes. According to the (Kenya Demographic and Health Survey, 2022), approximately 56% of school-aged children in Turkana Central Sub-County remain out of school. This figure is significantly higher than the national average of 18%, underscoring the deep-rooted barriers to education in the region.

The Kenya Competency-Based Curriculum (CBC), aims to provide an inclusive and equitable education system. However, despite the CBC's progressive approach to promoting skills over rote learning, its implementation in Turkana Central Sub-County seems to face many challenges. Research highlights significant dropout rates among students already enrolled in schools, contributing to poor access to primary education across Turkana County. According to the Kenya National Bureau of Statistics (KNBS) (2022), approximately 40% of children who begin primary school in Turkana do not complete the cycle, with dropout rates being particularly high among girls. Notwithstanding the government's initiatives to enhance access to fundamental education, the anticipated outcomes are yet to be realized, (Ministry of Education, 2023)

Studies reinforce that household size and caregiver education are predictors of educational attainment (Swartz, McLaughlin and Mortimer, 2018). In families with multiple dependents or where caregiver education levels are low, there is often less emphasis on academic achievement, affecting children's long-term educational trajectories and leading to elevated illiteracy rates, low completion rates, subpar academic performance, and diminished school attendance in Turkana County. This study thus acknowledges the need to address these socio-cultural factors holistically to create interventions that align with Sustainable Development Goal 4, which calls for inclusive and equitable quality education.

1.3. Purpose of the Study

The purpose of this study was to investigate socio-cultural factors that influence access to basic education in Turkana Central Sub-County.

1.4 Objectives of the Study.

This study sought to achieve the following objectives.

To examine the influence of gender roles on access to basic education in Turkana Central Sub-County

1.5 Study Hypothesis

This study sought to test the following null hypothesis.

Ho_1: There is no influence between gender roles and access to basic education in Turkana Central Sub-County

LITERATURE REVIEW

2.1 Introduction

This section explored the socio-cultural factors influencing access to basic education in Turkana Central Sub-County. It was organised around three core themes essential to understanding educational access in the region: Gender roles, perceptions of caregivers, and family structures. Each theme reviewed existing research to illuminate how these sociocultural factors impact children's education, such as how traditional gender roles may limit school attendance for girls, how caregivers' attitudes and cultural constraints shape educational priorities, and how family dynamics affect resource allocation for education. This section also incorporates theoretical and conceptual frameworks, including Bronfenbrenner's Ecological Systems theory, to contextualize the interplay between individual, familial, and societal influences on education. These perspectives provide a holistic foundation for understanding the complex barriers to educational access in Turkana Central Sub-County.

Interpretivism paradigm was widely used in socio-cultural studies to understand nuanced barriers to education, particularly in contexts shaped by deeply entrenched cultural norms and inequalities. For example, studies in rural African communities often employed interpretivism paradigms to capture subjective experiences and cultural narratives that influenced educational access. Hoominfar (2019) explored how traditional gender norms in pastoralist communities shaped school attendance, emphasizing the interpretivism approach's ability to highlight participants' lived experiences and the socio-cultural constructs of education. Similarly, Cislaghi and Heise (2018) used interpretivism to examine the role of cultural beliefs in perpetuating gender disparities in education, offering insights into how societal expectations shaped priorities and opportunities for boys and girls.

In studies related to Turkana, interpretivism was instrumental in identifying how patriarchal norms, caregiver attitudes, and economic pressures influenced educational access. For instance, Munene and Thuo (2020) employed this paradigm to investigate peer influences and societal norms, uncovering how these factors perpetuated inequalities in schooling. These interpretivism approaches informed the current research by providing a methodological foundation for exploring complex, culturally specific barriers, particularly in marginalized regions. This paradigm supported a holistic understanding of education as a socio-cultural phenomenon, emphasizing the importance of qualitative insights and contextualized findings to develop targeted, culturally sensitive interventions.

2.2 Gender Roles and Access to Basic Education

The National Policy on Gender and Development (2019) defines gender roles as socially assigned tasks and responsibilities that differ from biological functions. This conceptual framework was essential to this study, which sought to examine how these gender roles, as part of larger socio-cultural influences, impact access to basic education in Turkana Central Sub-County. Gender roles are socially reinforced through family, educational systems, media, and community expectations, shaping children's responsibilities and educational priorities from an early age. Access to basic education refers to the availability of essential learning opportunities for personal and societal development, which generally encompasses pre-primary and primary education. Gender norms in Turkana place boys and girls into culturally distinct roles. Boys are often prepared for leadership and livelihood roles within pastoralists.

Communities, whereas girls are geared toward domestic responsibilities (Cislaghi & Heise, 2018). From early childhood, family, educational systems, media, and societal norms (Hoominfar, 2019) shape these roles. This implies a time gap of more than four years since Hoominfar 2019, conducted research in a

similar discourse. Therefore, the study sought to fill the time gap by investigating the present socio-cultural factors influencing access to basic education in Turkana Central Sub-County.

2.2.1 Peer Influences and Access to Basic Education

Peer influences play a critical role in shaping gender roles and their impact on access to education, particularly in contexts like Turkana where traditional values are deeply entrenched. Outreach International (2024) highlights that cultural beliefs, reinforced through peer interactions, position boys as future leaders and girls in domestic roles. In Turkana, peers often reinforce traditional gender expectations, with boys encouraged to pursue schooling while girls are guided toward caregiving and household chores. According to (Omonge and Nasongo, 2019), these peer-driven gender norms significantly impact academic performance, limiting girls' educational achievements. However, research focusing specifically on peer influences in Turkana is limited, with existing studies largely generalized across Kenyan contexts, creating a gap in understanding the region-specific socio-cultural dynamics affecting education.

Peer influence often perpetuates gendered expectations in education, especially in patriarchal societies like Turkana. Studies by (Korir and Kipkemboi, 2014) reveal that peers play a pivotal role in either motivating or discouraging educational pursuits based on gender roles. Boys, through peer interactions, are encouraged to view education as a path to leadership, while girls are socialized into domesticity, reinforcing stereotypes that limit their academic engagement. These peer-driven norms discourage girls from aspiring to higher education or professional careers, further entrenching gender disparities. In addition, (Munene and Thuo, 2020) found that peer dynamics in Kenyan schools frequently exclude girls from academic leadership roles, diminishing their confidence and participation in education. However, these studies often lack recent data and focus primarily on urban or peri-urban areas, overlooking the unique socio-economic and cultural challenges faced in rural and pastoralist settings like Turkana.

Moreover, gendered peer influences affect the allocation of academic resources and opportunities, further disadvantaging girls. Research by (Mugambi, Mutisya and Thiongo 2019) in rural Kenyan communities shows that boys often receive more encouragement and social reinforcement to participate in academic-related activities, such as science and technology clubs, than girls. This systemic favouritism limits girls' exposure to critical skills and knowledge, affecting their academic performance and future opportunities. However, few studies address how these dynamics evolve or examine the long-term impacts of peer-driven biases on educational attainment. Addressing these research gaps requires targeted, longitudinal studies in rural and marginalized areas like Turkana, alongside interventions such as peer mentorship programs to promote gender equity and empower girls to challenge societal expectations.

2.2.2 Teacher Expectations and Access to Basic Education

Teachers' expectations of students often reflect ingrained socio-cultural gender roles, influencing their treatment of boys and girls in the classroom. As observed by (Abakiri and Obae, 2014), girls are frequently burdened by domestic responsibilities, which negatively affect their academic performance. Teachers may inadvertently lower expectations for girls, assuming their primary role lies in the home. Such biases reinforce the idea that boys are better suited for education, perpetuating gender disparities in educational attainment. However, there is limited research focusing on how these teacher biases manifest in Turkana, a region with unique socio-cultural dynamics, creating a critical gap in understanding the local impact of teacher expectations on educational access.

Teachers' gendered expectations can significantly impact student performance and educational aspirations. Okoth and Wamuyu (2018) observed that teachers in rural Kenyan schools often unconsciously reinforce societal gender norms by assigning gender-specific tasks, such as having boys lead group activities and

asking girls to perform classroom chores. This unequal treatment reinforces the perception that boys are academically superior, leading to higher expectations for their performance and diminished encouragement for girls. As a result, girls are less likely to take leadership roles or pursue subjects perceived as male-dominated, such as mathematics and sciences. Despite these findings, there is a need for more recent studies exploring how these gendered expectations have evolved, particularly in marginalized regions like Turkana, where educational interventions may have had varying impacts.

Additionally, teacher-student interactions can influence classroom engagement and performance. A study by (Njuguna, Mwangi and Kariuki 2022) demonstrated that girls often feel marginalized in classroom discussions because of subtle teacher biases that prioritize boys' participation. These biases, coupled with societal expectations, discourage girls from actively engaging in learning, negatively affecting their academic outcomes. While initiatives like those by the Forum for African Women Educationalists (FAWE) (2023) have shown promise in fostering inclusive teaching practices, there remains a lack of location-specific research in pastoralist communities like Turkana. Addressing these gaps would provide a clearer understanding of how teacher training programs could be tailored to address the unique challenges faced in these regions.

2.2.3 Cultural Norms and Access to Basic Education

Cultural norms remain a significant barrier to educational access in Turkana, particularly for girls. Traditional beliefs often position men as breadwinners and women as caregivers, heavily influencing family decisions about education (UNESCO Global Monitoring Report, 2023). Practices such as early marriage and dowry systems exacerbate these disparities, with girls frequently leaving school to marry at a young age (Akiru, Kanyiri, & Kosgei, 2023; UNICEF, 2015). However, there remains limited research on how these practices vary across different sub-regions of Turkana or how they have evolved in response to education-focused interventions. This study investigated the persistence of these norms and how they continue to prioritize boys' education over girls' during periods of economic hardship.

Cultural norms in Turkana are deeply tied to pastoralist traditions, where boys are often viewed as future economic providers, and girls are prepared for marriage and domestic responsibilities. Wamalwa and Burns (2018) reported that in many Kenyan pastoralist communities, including Turkana, families prioritize boys' education as an investment in long-term economic security, leaving girls' education as secondary. This trend becomes more pronounced during economic hardship, forcing families to make difficult decisions about which children to send to school. Similarly, (Gebremedhin, Bekele and Tsegaye, 2021) found that girls in pastoralist communities are often tasked with domestic duties, such as fetching water and caring for siblings, limiting their school attendance and academic performance. Despite the growing body of literature on these issues, there remains a significant gap in studies conducted after 2020 that assess the impact of recent educational reforms on mitigating these cultural barriers.

Early marriage continues to be a critical challenge to girls' education in Turkana. According to (Plan International, 2022), many girls are married off as young as 13 in exchange for dowry, reinforcing the perception that their primary value lies in marriage and motherhood. These marriages interrupt educational trajectories and contribute to cycles of poverty and gender inequality. However, limited data exists on the long-term impact of anti-child marriage policies implemented in Turkana over the last decade. Addressing these barriers requires multi-faceted strategies, including legal frameworks to prevent early marriages, community sensitization programs, and initiatives promoting girls' education, such as scholarships and conditional cash transfers for families (UNICEF, 2023). Further research is needed to evaluate the

effectiveness of these strategies in Turkana and to identify localized solutions that address deeply entrenched cultural norms.

2.5 Theoretical Framework
This study was based on Urie Bronfenbrenner's Ecological Systems Theory (1979). The theory was selected to elucidate concerns and provide guiding principles and direction for explaining and interpreting social phenomena (Johnson and Martinez, 2017) Bronfenbrenner's theory emphasizes the importance of various environmental layers from the immediate family to broader societal norms on individual development, making it a valuable tool for analysing socio-cultural impacts on education (Green and Carter, 2019). This ecological perspective aligns with the study's focus on gender roles, caregiver attitudes, and family structures as determinants of access to education, particularly in regions where cultural expectations are pivotal in shaping educational opportunities for children (Hong, 2023).

The microsystem, which includes the immediate settings of family and school, plays a central role in determining the educational outcomes of pupils in Turkana Central. Research suggests that caregivers' perceptions and attitudes, often shaped by their educational levels and socio-cultural status, are crucial in supporting or hindering children's access to schooling. Neal and Neal, (2021) found that caregivers who value education tend to create supportive environments that encourage school attendance, while those facing cultural barriers often deprioritize schooling. This aligns with the study's finding that low caregiver education and cultural barriers limit children's educational access, illustrating the microsystem's impact on learning opportunities.

The mesosystem, which encompasses interactions between microsystems, is reflected in the relationship between family dynamics and school engagement in Turkana Central Sub-county. When caregivers and teachers share expectations around children's education, these interactions positively influence attendance and retention rates (Hong, 2023). However, in contexts where teachers hold gendered biases and caregivers prioritize domestic roles for girls, these mesosystemic influences reinforce gender disparities. (Neal and Neal, 2021) emphasizes that collaborative relationships between caregivers and schools can mitigate such biases, though they are often underutilized in resource-limited settings.

The exosystem consists of indirect influences, such as caregiver work conditions or cultural policies, which can affect children's education by shaping family priorities and resources. For instance, when caregivers in Turkana face livelihood challenges, they may allocate limited resources toward immediate survival needs, reducing their capacity to invest in education (Bradbury-Jones & Isham, 2020). Such exosystemic pressures are particularly relevant in Turkana, where harsh livelihood conditions and reliance on pastoralism lead many families to view education as secondary to traditional livelihoods. Thus, the exosystem's indirect effects on educational access highlight the need for broader socio-cultural support to improve schooling outcomes.

At the macro system level, cultural beliefs, particularly around gender roles, profoundly shape educational access in Turkana. In many cultures, societal norms place a greater emphasis on boys' education, often at the expense of girls' schooling. This study's findings align with literature indicating that patriarchal structures often relegate girls to domestic roles, limiting their time for formal education (Hornby & Blackwell, 2018). These cultural expectations in Turkana highlight the macro system's power in sustaining educational inequities, pointing to a need for culturally sensitive interventions that address these deep-rooted gender norms.

The chronosystem, or the dimension of time, addressed how changes over time such as shifts in societal attitudes toward education or policy changes affected educational access. For example, the adoption of Sustainable Development Goal 4 (SDG 4), which advocates for inclusive and equitable quality education, represents a significant shift within the chronosystem. Swartz, McLaughlin and Mortimer (2018) argue that policy initiatives aligned with SDG 4 can promote gender equity and access to education over time, though they require sustained community engagement to counteract entrenched cultural beliefs. In Turkana, incorporating SDG 4 goals into local educational policies could slowly transform attitudes toward girls' education, highlighting the chronosystem's role in facilitating change.

Bronfenbrenner's theory is also valuable for interpreting how these various systems interact to influence educational outcomes. The study's findings demonstrate that no single factor such as gender roles or caregiver perceptions acts in isolation; rather, they are interconnected, collectively shaping children's schooling experiences. For example, a caregiver's perception of education (microsystem) interacts with socio-cultural challenges (exosystem), amplifying barriers to schooling. Studies (Ceci, Williams and Barnett, 2021) highlight the compounded effects of intersecting socio-cultural factors, which are particularly relevant in Turkana's multi-layered context.

Finally, Bronfenbrenner's theory provides a foundation for developing multi-level interventions that address educational barriers at different ecological levels. This study suggests that policies in Turkana should not only target immediate schooling needs but also engage with broader societal influences, such as caregiver support programs, teacher training to reduce gender bias, and livelihood initiatives that empower families to prioritize education. By addressing the ecological layers outlined by Bronfenbrenner, interventions can more effectively promote equitable access to education, fulfilling the aspirations of SDG 4 and creating sustainable change in educational outcomes for children in Turkana (Tudge, Mokrova, Hatfield and Karnik, 2016).

Bronfenbrenner's framework offers significant strengths. However, it is not without its challenges. Its expansive scope, which encompasses the microsystem, mesosystem, exosystem, macrosystem, and chronosystem, makes it a powerful tool for analyzing the complex socio-cultural dynamics at play. However, this breadth can also complicate its application in empirical studies. Critics argue that the theory's inclusiveness may dilute the focus on specific factors, making it difficult to translate findings into precise recommendations (Hornby & Blackwell, 2018). Furthermore, the emphasis on external influences often overlooks the role of individual agency and psychological factors that mediate responses to environmental challenges (Neal & Neal, 2021). Additionally, some scholars critique Bronfenbrenner's framework for its tendency to overgeneralize, suggesting that it risks treating cultural and systemic interactions uniformly. This can obscure the dynamic and reciprocal nature of human-environment interactions (Swartz, 2018). These critiques, while valid, also underscore the importance of adapting the framework to specific contexts.

In the context of this study, Bronfenbrenner's theory demonstrates remarkable flexibility, making it well-suited to Turkana's unique socio-cultural and livelihood conditions. For instance, the interplay between traditional gender roles within the macro system and caregiver attitudes within the microsystem illustrates the theory's ability to integrate diverse influences on educational access. To address its critiques, the study has strategically narrowed its focus to specific system interactions, such as the relationship between cultural norms and family dynamics, which are particularly relevant in Turkana Central Sub-county. Qualitative methods, including interviews and open ended questions, were employed to capture individual perspectives and agency within these systemic influences. By contextualizing findings within Turkana's

realities and complementing the ecological approach with theories that emphasize individual resilience, the study achieves a more balanced analysis.

Despite its weaknesses, Bronfenbrenner's theory remained indispensable for this study due to its ability to address multi-level influences on education. Its holistic approach not only identified interconnected barriers but also guided the development of multi-faceted interventions. By engaging with critiques and adapting the theory to Turkana's Central Sub-County context, the study underscores its relevance in promoting equitable educational access for marginalized groups. Ultimately, this approach contributes to the broader objectives of Sustainable Development Goal 4 (SDG 4), offering a pathway to inclusive and sustainable educational outcomes.

Figure 2.12 Conceptual Framework
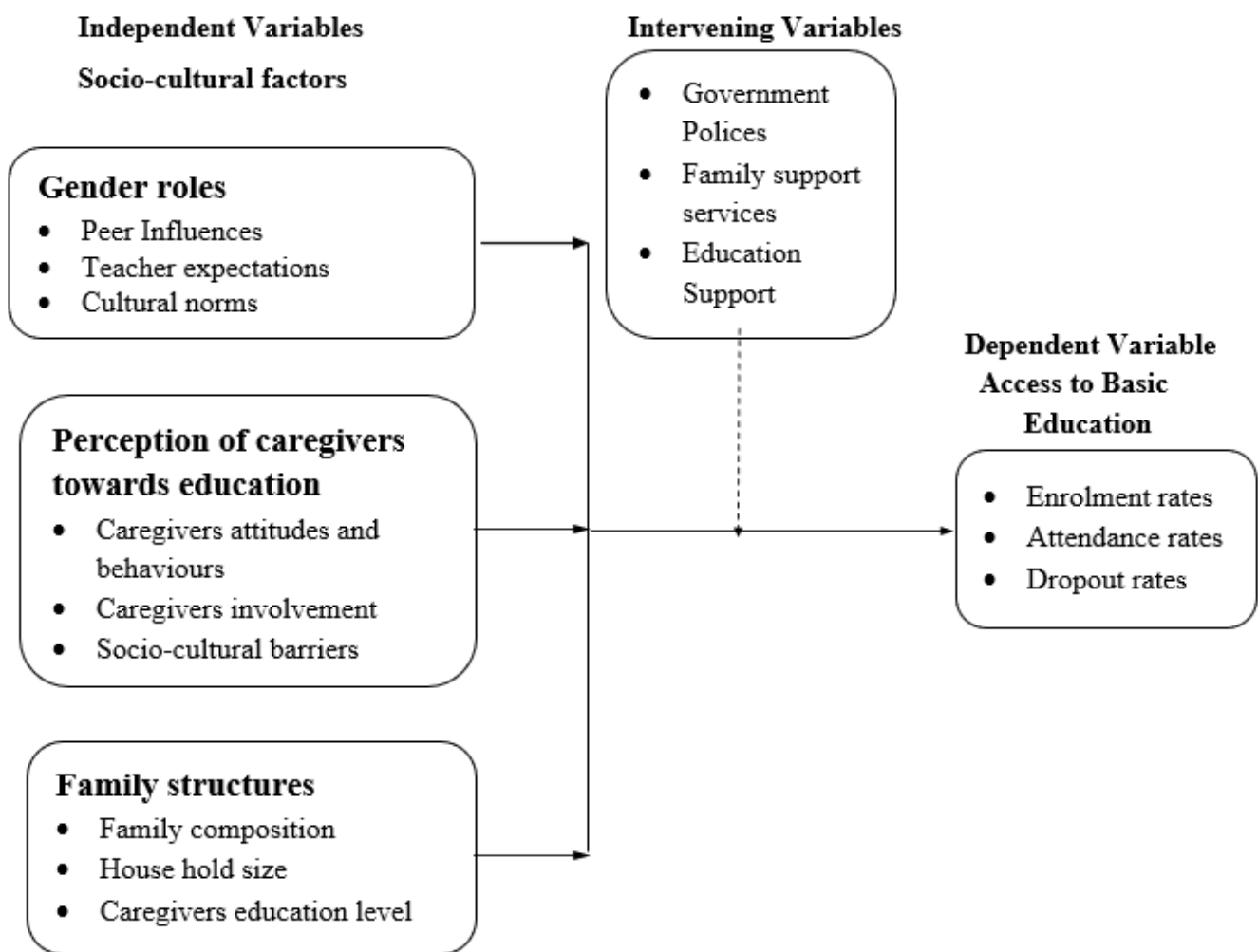
Source: Researcher, 2024.

RESEARCH METHODOLOGY

3.1. Introduction

This chapter presents the research methodology. It covers the research design, location of the study, and target population. The sampling techniques and sample size are followed, and lastly, the section details the collection of data procedures, analysis, and presentation of data.

The interpretivism research paradigm was grounded in relativist ontology and constructivist epistemology,

which examined socio-cultural factors affecting access to education in Turkana Central Sub-County. This approach recognised reality as socially constructed and context-specific, highlighting the influence of cultural elements like gender roles and caregiver attitudes on education. Constructivist epistemology emphasised co-creating knowledge through engagement with participants, such as caregivers and community leaders, to gain deeper insights into their lived experiences. By combining quantitative data to identify patterns with qualitative narratives for contextual depth, and employing tools like thematic analysis and triangulation, the study addressed the complex and multifaceted barriers faced by marginalized communities in the region.

3.2. Research Design

This study employed an explanatory sequential mixed-methods research design, as outlined by Creswell (2019) This approach integrated both quantitative and qualitative methodologies, offering a robust framework for addressing complex socio-cultural factors that influenced access to basic education in Turkana Central Sub-County. The design involved two distinct phases. In the first phase, quantitative data was collected and analyzed to identify patterns, trends, and relationships between variables such as gender roles, perceptions of caregivers, and family structures. In the second phase, qualitative data was gathered to provide deeper insights and explanations for the quantitative findings, capturing the lived experiences and perspectives of the participants. This design enhanced the study's validity and depth by triangulating statistical findings with contextual explanations, offering a nuanced understanding of how these socio-cultural factors affect education access (Creswell & Plano, 2018). This design was particularly suitable for the study as it allowed the initial breadth provided by quantitative analysis to be complemented by the depth of qualitative exploration.

Similarly, Alavi, (2018) employed an explanatory sequential approach to examine healthcare access disparities, using quantitative data to reveal statistical relationships and qualitative interviews to contextualize the findings through participants' lived experiences. These studies demonstrate the versatility of this design in providing both breadth and depth in addressing multifaceted research questions, validating its appropriateness for exploring socio-cultural factors affecting access to basic education in Turkana Central Sub-County.

The interpretivism paradigm shaped the study design by emphasizing the exploration of participants' subjective experiences and the contextual understanding of socio-cultural factors influencing access to education. This design, as noted in Creswell and Plano Clark (2018) and mirrored in studies like Alavi (2018), demonstrated the utility of explanatory sequential mixed methods for examining complex social phenomena. It allowed the study to systematically address the breadth of statistical trends while delving into the depth of individual lived experiences, making it highly effective for exploring the socio-cultural dimensions of education in Turkana Central Sub-County.

3.3 Location of the Study

The study was conducted in Turkana Central Sub-County in Turkana County. Turkana County covers an area of about 77,000 km2. The county is positioned in the extreme Northwestern part of Kenya. Geographically, Turkana County ranges from Latitude 3.3122° E and Longitude 35.5658°N at an altitude of about 477mm above sea level. (Olago, 2018.) Turkana County has six Sub-Counties: Loima Sub-County, Turkana Central Sub-County, Turkana East Sub-County, Turkana North Sub-County, Turkana South Sub-County, and Turkana West Sub-County.

Turkana Central Sub-County has an area of about 6415 km2 with a population of about 185,305 (Kenya National Bureau of Statistics, 2019)). It's an electoral constituency in Kenya. According to County Integrated Development Plan (CIPD) 2023, Turkana Central Sub-County has five wards; Kanamkemer, Lodwar Township, Kang'atotha, Kerio Delta and Kalokol: Ten locations (10); Kanakemer, Lodwar, Nakwamekwi, Kalol, Kangatotha, Kapua, Namukuse, Kerio 1, Kerio 2 and Lorengipi. The Sub-County has 86 Primary Public Primary schools (Ministry of Education, 2022).

Turkana Central Sub-County was chosen because it has the most significant demographic representation of school-age-going children, making it easier to generalize findings and ensure that the results represent the entire county.

3.4 Target Population

According to (Casteel and Bridier, 2021) target population is the complete set of individuals or things to which a researcher aims to generalize the findings and conclusions of their study. The target population for this study consisted of caregivers who are the adults responsible for learners' access to basic education and they supplied data pertinent to caregivers' opinions of gender roles and family structures. The Class teachers of government primary schools in Turkana Central Sub-County who are managers of learning in their classrooms constituted the target group since they had pertinent information on education access supplying data pertinent to the gender roles. Class teachers participated in the study as they served as the primary managers of their courses and had a comprehensive understanding of their students' attendance and engagement.

3.5 Sampling Procedure and Techniques

Sampling involves selecting some elements from a population, allowing for inferences about the entire population (Tuovila, 2024). This definition aligns with an earlier perspective (Manza, 2023) that posits "analyzing the sample and comprehending its characteristics enables the generalization of properties or traits to the population elements." Sampling was determined to obtain a representative cohort, facilitating the study's data acquisition regarding the population.

This research used purposive sampling to sample class teachers and caregivers. This technique was used because of its convenience in accessing the target population, especially in cases where a population of interest is quite accessible to access or reach. The technique is also flexible to implement (Nikolopoulou, 2023). The technique would be convenient because the sample population of schools was spread throughout Turkana Central Sub-County.

This study used purposive sampling to identify the key informants within the study area. Purposive sampling was used as it targeted individuals or groups that fulfilled specific criteria, such as expertise in a particular domain. This method is advantageous for researchers aiming to gain an in-depth and comprehensive understanding of a specific phenomenon, making it suitable for selecting officials by identifying individuals with the requisite information (Dovetail, 2023). This encompassed clearly articulated inclusion and exclusion criteria to ascertain which individuals from the target group were eligible or ineligible to partake in a research project.

3.6. Sample Population

A sample is a group within a research study from which data is gathered (Bhandari, 2023). The sample size of the study was drawn from the total public primary schools of Turkana Central Sub County which

are Eighty-six (86). 86 class teachers of grades six (6) and 86 caregivers of grade 6 were randomly selected from different schools across the sub-county. In cases of more than two streams, the stream with most pupils was preferred for the study. The sample size for the study was determined using the Yamane (2021) formula, with a confidence level of 95%.

$n = N/1 + N(e)^2$ …………………… equation 1

Where,

N = desired sample size

N = Population size

1 = Constant value

E = Margin of error (e = 0.05 at a confidence level of 95%)

Thus,

$n = 174/1 + (0.05)^2$

= 120 + 12 (Census of the Key Informants)

n = 132 (Sample Size)

The total population (174) of class teachers (87) and Caregivers (87) were calculated using the Yamane formula to obtain a figure of 120; 60 for teachers and 60 for caregivers. The figure obtained was then summed up with that of the key informants' census figure (12) to obtain the actual sample of the study (132).

Therefore, the study had a sample of 60 (50%) class teachers and 60 (50%) Caregivers. In addition, the study interviewed 12 Key informants: a Sub-County Education officer, a Sub-County social service officer, and 10 local area chiefs who represented the 10 locations of Turkana Central Sub-County. The 60 Primary schools were distributed in 10 locations, each with 6 Primary schools. This study, therefore, had a sample of 6 schools from each location represented by one local area chief.

Table 3.1 Summary of Sample Size of Study.

Target population	Method of sampling	Sampling frame	Sample size
Class Teachers	**Purposive Sampling**	**86**	**60**
Caregivers	**Purposive Sampling**	**86**	**60**
Key informants	**Census**	**12**	**12**
Total		184	132

3.7 Research Instruments

The research employed two data-collection instruments: a questionnaire and an interview schedule. The researcher designed the questionnaire and interview schedule for this investigation. A questionnaire consists of a written collection of inquiries to be individually answered by participants. It often includes broad information regarding respondent expectations and guidance on answering the questions. (Orodho, 2018). A questionnaire was employed to efficiently gather extensive data on caregivers' perspectives regarding education and family structures within a concise timeframe. Moreover, questionnaires were a favoured data collection tool in deduction due to their relative simplicity and cost-effectiveness in construction and administration.

An Interview Schedule is a structured framework that delineates the questions and subjects to be addressed during an interview. It is fundamentally a script that the interviewer adheres to guarantee uniformity and thoroughness in the data assortment process. It directs the researcher in formulating questions and response

possibilities for participants. It comprises the compilation of questions and response possibilities the researcher will provide participants. (Valerie, 2020). The interview schedule was employed to facilitate the researcher in obtaining comprehensive insights into gender roles and culture.

3.9 Data Collection Methods and Procedures

The data collection methods outline the systematic process for gathering information from respondents. Prior to data collection, the researcher obtained an introductory letter from Turkana University College and secured a research license from the National Council for Science, Technology, and Innovation (NACOSTI). Approval was also obtained from the County Commissioner, County Director of Education, and County Director in Turkana.

The interpretivism paradigm significantly influenced the data collection by prioritizing tools and methods that capture participants' subjective meanings and socio-cultural nuances. Open-ended questions in both interviews and questionnaires were central to this approach, enabling participants to express their unique perspectives and lived experiences in their own words. For quantitative data, structured questionnaires were distributed to participants, including class teachers and caregivers. Research assistants were engaged to ensure the efficient distribution and collection of these questionnaires, visiting selected public primary schools and respondents' locations within two weeks. Previous studies have demonstrated that employing research assistants improves the response rate and accuracy of data collection, (Orodho, 2018)

For qualitative data, the researcher conducted interviews with key informants, such as the county education officer, the county gender officer, and area chiefs. This allowed for in-depth insights that complemented the quantitative data. The interview process, designed to capture detailed perspectives on gender roles and educational access, was also completed over two weeks. This mixed-method approach facilitated comprehensive data collection, combining numerical trends with contextual understanding, as supported by (Creswell and Plano, 2018). This alignment with the interpretivism focus ensured the tools were sensitive to the complexities of cultural norms and subjective realities, fostering a rich understanding of the socio-cultural factors influencing education in Turkana Central Sub-County.

RESEARCH FINDINGS, ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter delineates the data analysis and discusses the findings about the study topics. The initial sections address the questionnaire return rate and the respondents' demographic information. The data was subsequently analyzed according to the study objectives. Objectives were accompanied by a summary and analysis of the quantitative data, which were then examined using the qualitative data. This chapter aimed at providing and interpreting analyzed data in relation to the study's objectives. The interpretivism paradigm shaped the interpretation of findings by emphasizing socio-cultural and contextual nuances, revealing how cultural norms and personal narratives influenced access to education in Turkana Central Sub-County.

4.2 Questionnaire Return Rate

The study administered 120 questionnaires; 60 directed to class teachers and 60 to caregivers, which were completed and returned. This indicated a 100% return rate, attributed to the data collection methods, wherein the researcher pre-informed potential participants about the forthcoming activity and the

questionnaires were administered in person, allowing respondents to complete them and collect them shortly thereafter. The data was gathered from all designated samples.

Table 4.1 Response Rate

No.	Questionnaires	Percentage administered	filled & returned
Respondents	120	100	120

Source Field data, 2024

4.3 Socio-Demographic Characteristics of the Respondents

The demographic profile offers insights into the population structure and facilitates the visualisation of the subgroups within the total population. Researchers gather demographic data from study participants to comprehend sample characteristics and assess the representativeness of the samples for the populations of interest (Oribhabor & Anyanwu, 2019). While demographic factors are immutable, researchers can elucidate the links between these characteristics and dependent variables. This study examined the respondents' characteristics by determining their gender, age, academic levels, family structure, and involvement in their children's schooling. The demographic attributes of both teachers and caregivers are delineated in the subsequent sub-section.

4.4 Gender Roles and Access to Basic Education

The first objective examined the influence of gender roles on access to basic education in Turkana Central Sub-County. The parameters used to examine this were peer influences, teacher expectations and cultural norms. Question items in the questionnaire were constructed to elicit teachers' perceptions of the impact of gender roles on access to basic education. A Likert-type scale was used with five points of Strongly Agree (SA) attracting a score of 5 points, agree (A) attracting a score of 4 points, Undecided (U) attracting a score of 3 points, disagree (D) attracting a score of 2 points and Strongly Disagree (SD) attracting a score of 1 point. The reverse scoring order was applied for questions that were inversely worded. The researcher then calculated an overall score per respondent, indicating their perception of the influence of gender roles on access to basic education. The results obtained are presented in Table 4.4.

Table 4.4 Frequencies on Gender Roles

Score Range	Frequency	Percentage
56-60	**22**	**37**
47-55	**6**	**10**
36-46	**10**	**17**
25-35	**6**	**10**
16-24	**9**	**15**
12-15	**7**	**11**
Total		100

Source: Field data, 2024

Findings in Table 4.4 display that there were 12 questions per questionnaire therefore in applying the scoring criteria detailed above, the maximum score per question was 60 and the lowest was 12. High scores indicated concurrence that gender roles influenced learners' access to basic education and vice

versa. From the table, 63 %, agreed while 37 % indicated disagreement that gender roles did not affect access to basic education. Out of the respondents, the majority (37%), strongly agreed that gender roles had a significant inspiration on access to basic education. Out of the total respondents, only 11 % strongly disagreed that gender roles had a negligible influence on access to basic education.

The qualitative analysis of interview responses by the key informants corroborated the statistics. The responses from the interview questions were categorized as indicating concurrence or non-concurrence with the proposition that gender roles influence access to basic education. The questions required respondents to indicate whether gender roles such as household tasks that keep learners away from school are shared equally by gender. A summary of the responses indicates that the majority (90 %) of the respondents indicated that boys and girls do not share such household tasks equally in the Turkana community. Furthermore, the analysis indicated that learners sometimes miss school for activities like home chores, caring for their young siblings, and harvesting Doum Palm leaves for making huts, mats and brooms which are tasks usually assigned to girls. These occurred more frequently compared to absence from school on account of taking care of goats and sheep, a role usually assigned to boys. They admitted that these activities consumed a lot of time; hence, pupils found it hard to attend school. Amongst the respondents, only 1% disagreed that girls in this community leave school to attend to domestic chores. Suffice it to say that the descriptive statistics indicate that gender roles influence access to basic education as respondents indicated that some caregivers prioritize these chores over sending their learners to school. This implies that gender roles affect access to basic education in the sense that boys are more advantaged as compared to girls. This was further affirmed by one of the key informants during an interview who stated:

School-going-age children are denied their right to formal education. Instead, they are taught informal education on home chores, taking care of animals, and taking care of their spouses in preparation for bringing them to marriage. Source: (Field Data, 2024)

Research findings from UNICEF (2020) align with the assertion that household chores significantly impact children's access to education, especially in low-resource regions like Turkana County. UNICEF reports that child labour, which often includes domestic tasks such as caring for animals, hut construction, and household chores, prevents many children from attending school. In Sub-Saharan Africa, about 160 million children are involved in child labour, with a significant portion unable to balance these tasks with educational pursuits.

To concretize this finding, a chi-square statistic was obtained to make inferences on the relationship between the two variables, gender roles and access to basic education. From the overall score per respondent, those above the median score indicated a strong influence between gender roles and limited access to school. Those below the median score indicate a declining connection between gender roles and access, limiting access to basic education. This enabled the researcher to develop a 2 by 3 contingency table for chi-square calculation. The study intended to falsify hypothesis Ho_1: There is no influence between gender roles and access to basic education in Turkana Central Sub-County. The results of the chi-square are presented in Table 4.5.

Table 4.5 Chi-Square Test on Gender Roles against Access to Basic Education

Gender roles → /Access to Basic Education ↓	Strong	Moderate	Minor	Total

Discourages Access	**22 (17.73) [1.03]**	**6 (9.50) [1.29]**	**10 (10.77) [0.05]**	38
Not discouraging Access	**6 (10.27) [1.77]**	**9 (5.50) [2.23]**	**7 (6.23) [0.09]**	22
Total	28	15	17	60

The chi-square statistic is 6.4654. The p-value is .039452. The result is significant at p < .05.

Key

xx---frequency

(xx) expected value of the cell

[xx] chi-square of the cell

The Chi-Square test yielded X^2 (2, N = 60) = 6.465, p = .039452.

With a predetermined α level of 0.5, the results indicated a relationship between gender roles and access to basic education in Turkana Central Sub-County. A p level of 0.03945 indicated that this was significant hence, the null hypothesis was rejected. The study therefore accepts the alternative hypothesis, Ho_1 which states that there is a connection between gender roles and access to basic education in Turkana Central Sub-County.

A study by (Abdullah, Huynh, Emery and Jordan, 2022) provides supporting evidence for the relationship between social norms, gender roles, and children's participation in education, particularly in contexts similar to Turkana Central Sub-County. The study found that cultural norms surrounding child labour, including gendered expectations for domestic and agricultural work, significantly hinder children's ability to attend school. These norms, deeply embedded in family structures, often prioritize child labour over education, especially in subsistence farming communities, leading to low school attendance rates, especially for girls. This parallels the findings from this study, which found that engagement in domestic chores limits educational accessibility.

These findings are also in agreement with a recent study titled "Gender Equity in Education: Addressing Challenges and Promoting Opportunities for Social Empowerment" (Kuteesa, Akpuokwe, Chidiogo, & Udeh, 2024), which also explored the influence of traditional gender roles on access to education. It confirmed that countries with persistent traditional gender norms often experience higher rates of child labour, particularly in households where livelihood pressures force children, especially girls, to prioritize domestic or care work over school attendance.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS
5.1 Introduction

This chapter synthesizes the entire study and presents a summary, an exposition of the findings commensurate with the objectives and conclusions, and recommendations for further research following the research objectives.

The interpretivism paradigm was pivotal in achieving the study's objectives by emphasizing the importance of socio-cultural contexts and participants' lived experiences. This study analyzed data to examine socio-cultural factors affecting access to basic education in Turkana Central Sub-County. The study analyzed data concerning socio-demographic characteristics and response rates from a 100% return of 120 questionnaires (60 from teachers and 60 from caregivers). Demographic insights revealed that 64% of teachers were male, reflecting gender imbalance among educators, a finding consistent with UNESCO's

reports on staffing disparities in Sub-Saharan Africa. Most teachers held diploma qualifications (60%), and the predominant age range was 31–40 years. Among caregivers, 57% were female, with 48% aged 31–40. Educational attainment varied, with most having secondary or diploma-level education. Family structures showed diversity, with 50% from two-parent households. Caregiver roles in education ranged from academic support to attending conferences. These findings highlight significant socio-cultural influences on education, including gender imbalance and varied parental involvement.

The study investigated the influence of gender roles on access to basic education in Turkana Central Sub-County, focusing on peer influences, teacher expectations, and cultural norms. The Interpretivism paradigm allowed for an in-depth exploration gender roles facilitating the integration of narrative insights with quantitative trends, enabling a nuanced understanding of cultural norms and their impact on educational disparities. Using a Likert-scale questionnaire, the findings revealed that 63% of respondents agreed that gender roles significantly impact access to education, with tasks such as household chores disproportionately affecting girls. Qualitative interviews confirmed that these chores, including caregiving and domestic tasks, often prioritized over schooling, hinder girls' academic participation. The Chi-Square test, X^2 (2, N = 60) = 6.465, p = 0.039, established a significant relationship between gender roles and limited educational access, rejecting the null hypothesis. Supporting studies, including those by Abdullah et al. (2022) and Kuteesa et al. (2024), similarly highlight how cultural norms and child labor disproportionately affect girls' education, underscoring the need for interventions to mitigate these barriers. The study emphasizes that gender roles create educational disparities, favoring boys and limiting girls' access to school.

The study assessed how caregivers' perceptions influence access to basic education in Turkana Central Sub-County, focusing on caregivers' attitudes, involvement in education, and socio-cultural barriers. The Interpretivism paradigm allowed for an in-depth exploration on perception of caregivers facilitating the integration of narrative insights with quantitative trends. This enabled a nuanced understanding of cultural norms and their impact on educational disparities. Quantitative data showed that 61% of respondents agreed that caregivers' perceptions significantly impact access, with 35% strongly agreeing. Interviews revealed that caregivers often prioritize cultural practices, domestic chores, or informal education over formal schooling, disproportionately affecting girls. Low income and financial constraints further limited caregivers' engagement in their children's education, as many could not afford school fees or dedicate time to academic support. A Chi-Square test, X^2 (2, N = 60) = 8.543, p = 0.014, confirmed a significant relationship between caregivers' perceptions and educational access, rejecting the null hypothesis. These findings align with studies by Okoth and Omondi (2020) & Lynch and Mbiti (2018), emphasizing how caregivers' traditional roles, financial priorities, and attitudes in similar contexts hinder educational access, particularly for girls.

The study examined how family structures influence access to basic education in Turkana Central Sub-County, focusing on family composition, household size, and caregivers' education level. The Interpretivism paradigm allowed for an in-depth exploration of family structures facilitating the integration of narrative insights with quantitative trends. This enabled a nuanced understanding of cultural norms and their impact on educational disparities. Quantitative findings revealed that 64% of respondents agreed family structures significantly impacted educational access, with 37% strongly concurring. Large family sizes and caregivers' low education levels emerged as key barriers, limiting resources and engagement in children's education. Qualitative data corroborated these findings, highlighting that uneducated caregivers often struggled to support educational needs or prioritize school attendance over

chores, especially for girls. A chi-square test, X^2 (2, N = 60) = 9.219, p = 0.01, demonstrated a significant relationship between family structures and educational access, leading to the rejection of the null hypothesis. These findings align with prior research, such as Kipruto and Nduku (2011), emphasizing how patriarchal norms, caregiver education levels, and household dynamics hinder school access in pastoralist communities.

5.3 Conclusions

The objective examined the influence of gender roles on access to basic education in Turkana Central Sub-County. The findings indicated that gender roles significantly impacted access to basic education. The null hypothesis, Ho_1, that there is no influence between gender roles and access to basic education in Turkana Central Sub-County, was rejected based on a Chi-square value of (6.465). Therefore, the study concludes that gender roles significantly influence access to basic education.

5.4 Recommendations for Policy and Practice

Grounded in the interpretivism approach, the study made the following recommendations based on the findings.

The study established that gender roles influence access to basic education and that, more often than not, it contributes to girls not having as much access to education as boys in Turkana County. The study, therefore, recommends community sensitization initiatives and affirmative action to relevant policymakers or to enable gender equity in access to basic education.

5.4 Suggestions for Further Research

The study suggests the following areas for possible further studies. –

Whereas this study covered gender roles and their influence on access to basic education, it would be prudent to find out if the same influences persist at higher levels of learning. The study recommends a similar study but at the secondary school level.