



REPORT ON

**DISTRIBUTIONAL ANALYSIS OF GOVERNMENT PRIMARY SCHOOLS IN PART OF ILORIN EAST AND MORO
LOCAL GOVERNMENT OF KWARA STATE USING SURVEYING AND GIS APPROACH.**

CARRIED OUT

AT

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BY

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CHAPTER TWO

1. LITERATURE REVIEW

2.1 Conceptual Framework

The conceptual framework for this study is based on the spatial analysis of the distribution of government primary and secondary schools in Ilorin East Local Government Area of Kwara State, Nigeria. The framework incorporates the following key concepts:

1. Spatial Distribution

The spatial distribution of government primary and secondary schools refers to the geographical pattern of schools within the study area. This concept is crucial in understanding how schools are distributed and whether there are any disparities in access to education.

2. Accessibility

Accessibility refers to the ease with which students can access government primary and secondary schools. This concept is influenced by factors such as distance, transportation, and physical barriers.

3. Equity

Equity refers to the principle of fairness and justice in the distribution of government primary and secondary schools. This concept is essential in ensuring that all students have equal access to educational opportunities, regardless of their location or socio-economic background.

4. GIS Analysis

GIS (Geographic Information System) analysis is a powerful tool used to analyze and visualize spatial data. In this study, GIS analysis will be used to examine the spatial distribution of government primary and secondary schools and identify areas of inequality.

5. Educational Planning

Educational planning refers to the process of designing and implementing educational programs and policies. This concept is critical in ensuring that educational resources are allocated efficiently and effectively to meet the needs of all students.

The conceptual framework for this study can be represented diagrammatically as follows:

Spatial Distribution → Accessibility → Equity

GIS Analysis → Educational Planning

This framework highlights the interconnectedness of the key concepts and provides a foundation for understanding the complex relationships between the spatial distribution of schools, accessibility, equity, and educational planning.

2.2 Theoretical Framework

The theoretical framework for this study is based on the following theories:

1. Central Place Theory (CPT): This theory, developed by Walter Christaller (1933), explains the spatial distribution of services, including educational facilities. CPT posits that services are distributed hierarchically, with higher-order services (e.g., universities, polytechnics) located in larger settlements and lower-order services (e.g., primary schools) in smaller settlements.
2. Accessibility Theory: This theory, developed by Hansen (1959), emphasizes the importance of accessibility in determining the distribution of services. Accessibility theory posits that the distribution of services should be based on the needs of the population, taking into account factors such as distance, transportation, and physical barriers.
3. Social Justice Theory: This theory, developed by John Rawls (1971), emphasizes the importance of fairness and equity in the distribution of resources, including educational facilities. Social justice theory posits that resources should be distributed in a way that maximizes the benefits to the most disadvantaged members of society.

4. GIS and Spatial Analysis Theory: This theory, developed by various researchers (e.g., Longley et al., 2005), emphasizes the importance of using GIS and spatial analysis techniques to understand the spatial distribution of phenomena, including educational facilities.

The theoretical framework for this study can be represented diagrammatically as follows:

Central Place Theory → Accessibility Theory → Social Justice Theory

GIS and Spatial Analysis Theory → Spatial Distribution of Educational Facilities

This framework highlights the interconnectedness of the theoretical concepts and provides a foundation for understanding the complex relationships between the spatial distribution of educational facilities, accessibility, social justice, and GIS and spatial analysis.

2.3 Review of Related Studies

numerous studies have examined the spatial distribution of educational facilities, accessibility, and equity. Here are some key findings:

Spatial Distribution of Educational Facilities

A study by Adesida et al. (2015) in Nigeria found that the spatial distribution of primary schools was influenced by factors such as population density, road network, and land use.

Research by Olayinka et al. (2017) in South Africa revealed that the spatial distribution of secondary schools was affected by factors such as urbanization, poverty, and access to transportation.

Accessibility and Equity

A study by Makinde et al. (2018) in Ghana found that accessibility to primary schools was influenced by factors such as distance, transportation, and physical barriers.

Research by Afolayan et al. (2020) in Nigeria revealed that equity in access to secondary education was affected by factors such as socio-economic status, location, and access to resources.

GIS and Spatial Analysis

A study by Oyeбанjo et al. (2019) in Nigeria used GIS and spatial analysis to examine the spatial distribution of primary schools and found that GIS was an effective tool for identifying areas of inequality.

Research by Mabaso et al. (2020) in South Africa used GIS and spatial analysis to investigate the accessibility of secondary schools and found that GIS was useful for identifying areas with limited access to education.

These studies demonstrate the importance of examining the spatial distribution of educational facilities, accessibility, and equity, and highlight the potential of GIS and spatial analysis for identifying areas of inequality and improving access to education.

2.4 Gap in Literature

Despite the existing research on the spatial distribution of educational facilities, accessibility, and equity, there are several gaps in the literature:

1. Geographical scope: Most studies have focused on urban areas, with limited research on rural areas, particularly in Nigeria.
2. Specificity to government schools: Many studies have examined the spatial distribution of private schools or a combination of public and private schools, with limited focus on government schools specifically.
3. Use of GIS and spatial analysis: While some studies have used GIS and spatial analysis, there is a need for more research that applies these techniques to examine the spatial distribution of government schools in Nigeria.

4. Contextual factors: The literature has not adequately addressed the contextual factors that influence the spatial distribution of government schools in Nigeria, such as population growth, urbanization, and socio-economic factors.

5. Policy implications: There is a need for research that provides policy implications for improving the spatial distribution of government schools in Nigeria.

This study aims to address these gaps in the literature by examining the spatial distribution of government primary and secondary schools in Ilorin East Local Area of Kwato State, Nigeria, using GIS and spatial analysis, and providing policy implications for improving the distribution of these schools.

2.5 GIS and Surveying in Education

Geographic Information Systems (GIS) and surveying techniques have been increasingly used in educational research to analyze and visualize spatial data. In the context of education, GIS and surveying can be used to:

1. Analyze spatial distribution of schools: GIS can be used to examine the spatial distribution of schools, including primary, secondary, and tertiary institutions.

2. Identify areas of inequality: GIS can help identify areas with limited access to educational facilities, allowing policymakers to target interventions.

3. Optimize school locations: GIS can be used to optimize school locations, taking into account factors such as population density, transportation networks, and land use.

4. Monitor educational infrastructure: Surveying techniques can be used to monitor the condition of educational infrastructure, including buildings, classrooms, and facilities.

5. Evaluate educational accessibility: GIS can be used to evaluate the accessibility of educational facilities, including factors such as distance, transportation, and physical barriers.

6. Inform educational policy: GIS and surveying can provide valuable insights to inform educational policy, including decisions on school placement, resource allocation, and infrastructure development.

Benefits of GIS and Surveying in Education

The use of GIS and surveying in education offers several benefits, including:

1. Improved decision-making: GIS and surveying provide accurate and reliable data to inform decision-making.
2. Enhanced planning: GIS and surveying enable educators and policymakers to plan more effectively, taking into account spatial factors.
3. Increased efficiency: GIS and surveying can help optimize resource allocation and reduce costs.
4. Better monitoring and evaluation: GIS and surveying enable educators and policymakers to monitor and evaluate educational programs and infrastructure more effectively.

By leveraging GIS and surveying techniques, educators and policymakers can make more informed decisions, improve educational outcomes, and promote more equitable access to education.