



## **EFFECTS OF DEMOGRAPHIC DETERMINANTS OF SEMANTIC-MAPPINGS AND KNOW-WANT-LEARN STRATEGIES ON PUPILS ACADEMIC PERFORMANCE IN IREPODUN LOCAL GOVERNMENT AREA OF KWARA STATE**

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### **ABSTRACT**

One of the major problems confronting young Learners in primary schools in Nigeria is poor academic performance in Literacy because there is a large percentage of young children who cannot learn using literacy as tool for learning, in this 21st century in which there is an increased demand for learners who are proficient in writing language. This study examined Effects of demographic determinants of semantic-mappings and Know-Want-Learn strategies on pupil's academic performance in Irepodun Local Government area of Kwara State. Two research hypotheses was formulated to guide this research. A quasi-experimental design was used for the study. The population for the study comprised of all the public primary schools pupils in Irepodun Local Government Area of Kwara State. The sample of 132 pupils were randomly selected across Forty-Eight (48) public primary schools in Irepodun Local Government of Kwara State. Three instruments and instructional guide were used to elicit information from the respondents, reliability level of the instrument was 0.76 which was arrived at with the use of Cronbach alpha. The data collected was analyzed using descriptive statistics of frequency count, percentage, mean and standard deviation and inferential statistics of Analysis of Co-variance (ANCOVA) at 0.05 level of significance. The findings indicate that gender and school type has effects on academic performance of the pupils. It was concluded that semantic-mapping and Know-What-Learn strategies are effective in teaching Literacy. It was recommended that teachers should make sure that there will be no gender discriminations in schools in order to motivate all pupils during teaching and learning process and that the school authorities should provide age appropriate learning environment to enhance appropriate teaching strategy for literacy.

**Key words:** demographic, literacy, semantic-mapping, know-what-learn

### **Introduction**

One of the major problems confronting young Learners in primary schools in Nigeria is poor academic performance in Literacy because there is a large percentage of young children who cannot learn using literacy as tool for learning, in this 21st century in which there is an increased demand for learners who are proficient in writing language. In specific terms, only 33% of young children between ages 6 to 14 years are proficient in literacy (Alsoudi, 2017) this means that 33% of young children in Nigeria primary schools are literate. The word Literacy can be defined as the acquisition of skills such as listening, reading; writing and speaking that are to be learnt proficiently at the basic level of education. Literacy connotes acquisition of skills such as listening

skill, reading skill, writing and speaking and the ability to understand rudiments of letters which are to be learnt properly at the preschool and at the basic level of education. Carol (2020) described Literacy skills as skills meant for reading and writing and awareness of sounds of letters, awareness of prints and relationships that exists between letters and sound, the use of words, spelling and comprehension.

Kasim and Wahyuni (2016) defines semantic-mapping as a technique that help learners to learn and recall previously learnt words for current use. Semantic mapping is derived from the words semantic and mapping. There are various definitions of Semantic-mapping that have been proposed by different experts. Semantic mapping is a technique that allows learners to demonstrate their understanding of the relationships between ideas within a text by drawing a semantic (mental) map, They explained further that it is an overview of key vocabulary and concepts providing a link between what learners know and what they will learn when they read.

Semantic-mapping strategy (SMS) allows Learners to explore their knowledge of a new word by creating a map using other related words or phrases similar in meaning to the new word. It can be done before, during and after reading by using two group instruction or by using co-operative learning groups or by individual learners. Also, semantic-mapping contains diagrams that can be used to represent words, ideas, or other items linked around central key words or ideas from the text and that tells the relationship between the different parts of an idea to the main idea (Kasim & Wahyuni, 2016).

Know-want-learn is one of meta-cognitive Strategies that speak about (what do I know? What do I want to know and what have I learnt) it is a strategy that activates pupils' previous knowledge and makes it a starting point to acquire new knowledge in order to have meaningful learning, it increases pupils' self – confidence and ability to plan and monitor pupils work (Alsoudi, 2017). Know-Want-Learns strategy stimulates students thinking by reinforcing questioning, independent thinking and setting objectives which lead them to achieve their goal. (Alsoudi, 2017). Metacognitive is a concept that was first established by John Flavall in 1779 to refer to the effectiveness and meaningful learning. Different teaching strategies were emerged based upon metacognition and one of these is Know-.Want-.Learn which was established by Ogle Dona in



U.S.A. this strategy utilizes previous pupils' knowledge to acquire the new knowledge and learning (AbuJade & Nofal, 2010).

Know-Want-Learn strategy deepens learner's understanding about a topic they find in text books, and then after reading process knowledge increases and it also helps pupils organize and arrange generally the information they understood (Alsoudi, 2017). Know-Want-Learn strategy commonly concentrates on analytical thinking they also pointed out that Know-Want-Learn is a procedure conducted by the teacher involving creative discussion about a topic of the lesson, followed by the use of papers, charts, class board to record pupils information about what they know (K), want to learn (W) and finally what they have learned (L).

### **Gender and Pupils' Academic performance**

Ajayi (2017) conducted a study on gender differences in the academic performance of pupils' data was collected from 240 students who passed the district level standard exam of grade eight in 2016 and were studying in grade nine in public and private school in Lekinah Municipality, Kaski, Nepal. Data on the characteristics of the pupils, their parents, pupils' behavior, perceptions, family environment and school environment were collected from the students, and their parents using a structured questionnaire. The data on pupils result and divisions scored by pupils as measure of academic performance of the pupils were obtained from the district education office (DEO) of Kaski. The study found significant gender differences in the academic performance of students. The female pupils were found better than their male counterparts. The study also revealed that a large number of students scored first division or higher with relatively an outstanding performance are private school compared to public. In the findings of Ganiyu (2016) who postulated that there was no significant main effect of gender on pupils' academic performance in Literacy. Okoye (2008) also submitted that gender have no significant effect on pupils' academic performance but rather personality is the determination pupils' academic performance.

In the study of Olayemi (2018) on the effects of school type and gender on academic performance revealed that there was a significant difference in student academic performance on basis of gender which was in favour of female students in private schools. Joseph et al, (2015) conducted a study on effect of gender on students Academic performance in computer studies in secondary school in New Bussa, Borgu Local Government Area of Niger State. A set of

Questionnaire which consists of 30 multiple-choice items from senior school certificate Examination past Questions as set by West Africa Examination Council, the Questionnaire was administered to 275 students from both private and public schools in the study area. The research used independent t-test to analyze the study and finding revealed that many students had slightly better performance compared to female students, and at the same time better performance is pronounced in the private school which was shown to possess best male brain found in the study area.

Another variable of concern in this study is School characteristics such as school type which has been found to have lasting value on academic performance of learners (Frenette & Chan, 2015). Schools around a child are of various categories in that resources available for learners which may include facilities like Libraries and Learning materials have a way of predicting literacy performance of learners which may be as a result of the parent's back ground on learning. School type (private or public school) could also have a considerable learning effect on learners depending on many factors which the school may be responsible. More also the study was also interested in finding out the differences that exist in the academic performance of pupil's in literacy skills based on gender and school type, and the results showed there was no significant effect on pupils' academic performance based on gender.

Another variable of concern in this study is school-type that in turn has a great influence on Pupil's academic performance. Public schools are institution set up by federal, State and Local Government while private schools are set up by group of individuals or single individuals. Literature have it that school characteristics such as type, facilities and location have a considerable influence on Pupil's Academic performance in Literacy skills acquisition. In this regard,

Erai-Khuemen (2014) worked on school effectiveness as factor at improving students' academic performance and the finding revealed that school of high socioeconomic status, with none academically proficient students and with more complete school facilities are more effective in improving students' academic performance.

Although some researchers have investigated other factors affecting academic performance such as the effects of parents' socio-economic status, Teachers' qualifications, experience and teaching methodology. In spite of those efforts, the problem of poor academic performance in

Literacy still persisted. This creates a research gap in Knowledge which this research wants to fill by examining the effect of Semantic-mapping and Know-Want-Learn Strategies on Pupil's Academic performance in Literacy in Irepodun Local Government Area of Kwara State Nigeria.

### **Purpose of the Study**

The general purpose of this study was to find out the effect of semantic-mappings and Know-Want-Learn strategies on pupils academic performance in Irepodun Local Government area of Kwara State.

Specifically, the study:

- i. Investigated the main effect of gender on pupils academic performance in Literacy in Irepodun Local Government Area of Kwara State
- ii. Assessed the main effect of school type on pupils academic performance in Literacy in Irepodun Local Government Area of Kwara State

### **Hypotheses**

For the purpose of this study, the following hypotheses were generated to guide this study.

- i. Ho1: There is no significant main effect of gender on pupils' academic performance in Literacy in Irepodun Local Government Area of Kwara State.
- ii. Ho2: There is no significant main effect of school type on pupils' academic performance in literacy in Irepodun Local Government Area of Kwara State.

### **Research methods**

The population of the study comprised all the primary school teachers and pupils in Irepodun Local Government Area of Kwara State. The total Number of primary schools in Irepodun Local Government Area is 192 with 150 in public schools and 42 in private schools. The total number of pupils in Irepodun Local Government Area of Kwara State is 84,203 with 17,312 in private schools. At the time of this study. The target population of the study while primary two pupils, in the locale, public primary schools have total number of 2,973 pupils and private schools have a total of number of 8002 pupils in Irepodun Local Government Area of Kwara State. As recorded in Kwara State school census report in 2018/2019, season.

Purposive sampling technique was used to select six mixed public and private primary schools (boys and girls schools) to be able to get specific characteristics from the population of the study based on school type as well as mixed pupils of 132 in total were used as respondents. The sampling technique was considered to be appropriate for this study in order to ascertain some specific characteristics from the respondents and compared the result among variables.

The private schools as well as the public school pupils were purposely selected as the experimental group and control group. (one private and one public as experimental group 1) and another (private and one public school as experimental group 2) and control group (one private and one public school) which was selected based on the number of zone in the area and intact classes of primary two pupils of these schools were used as the treatment groups as well as control groups because the strategy kept them actively involved throughout the learning period as young learners that are part of Nursery school setting who hardly learn in abstract.

Three instruments and the instructional guide were used to elicit information from the respondents. These were: Pupils Literacy Academic Performance Test (PLAPT), Instructional Guide on Semantic-mapping Strategy (IGSM), Instructional Guide on Know-Want-Learn strategy (IG-K-W-L-S). Instructional Guide on conventional method (IGCM). Pupils' Literacy Academic Performance Test (PLAPT) was constructed by the researcher with the help of primary two scheme of work. It consisted of two sections, A & B. Section A captured the demographic data of the respondents like school, school type, class, gender and subject. Section B comprised 20 multiple choice items with four options based on the topics addressed such as, Verb, letter and sound, Noun, reading comprehension, the instrument was constructed to measure respondent's knowledge, and application.

In order to ascertain the reliability of the pupils' Literacy Academic Performance Test (PLAPT), 25 copies of the final drafted instrument was administered twice within an interval of two weeks outside the sampled schools. Then, test-re test method was used to establish reliability index at 0.76 for (PLAPT). The coefficient was having high making the instrument to be reliable.

The researcher obtained a letter of introduction from the head of Department Early Childhood and Primary education, Kwara State University, Malete, which was taken to selected sampled schools to enable the researcher to seek the permission of the school authority and class

teachers (Primary two). Research assistants who were class teachers of primary two pupils in the selected schools and some researcher's colleagues. They were trained in their various schools by the researcher prior to the treatment period to inform them of the instructional guide.

Research assistants were supervised by the head teacher of each school. The study was carried out in the first term of 2021/2022 academic season. The constructed consent form was given to the pupils for their parents/guardians. Participants can withdraw his / her consent at any time. One week was for the training of the research assistants and administration of the pupils literacy academic performance test (PLAPT) as the pre-test for both experimental and control groups. Treatment for the groups took place for the period of 4 weeks while the pupils' literacy academic performance test (PLAPT) was administered as post-test to all the groups both (experimental and control groups) in the 6th week. The class teachers taught control groups using conventional method. The data collected were analyzed using both descriptive and inferential statistics. The demographic data were analyzed using frequency count and percentage, while all the hypotheses were tested using Analysis of Co-variance (ANCOVA) at 0.05 level of significance.

## Results

**Table 1:** Effect of gender on pupils' academic performance in literacy

Source	SS	Df	MS	F	P
Between Groups	124.772	1	41.591	.284	0.05
Within Groups	19245.887	119	16.092		
Total	19370.659	110			

**p>0.05**

Table 1 also revealed the effect of gender on pupils' academic performance in Literacy in Irepodun Local Government Area of Kwara State. There was no significant main effect of gender on pupils' academic performance in Literacy in Irepodun Local Government Area of Kwara State ( $F_{(1; 119)} = .284$ ;  $P > 0.05$ ). The hypothesis is therefore not rejected in the light of the result since the significant value is greater than 0.05.

**Table 2:** Effect of school type on pupils' academic performance in Literacy

Source	SS	Df	MS	F	P
Between Groups	124.772	1	41.591		
Within Groups	19245.887	119	16.092		
Total	19370.659	110		.796	0.05

**p>0.05**

Table 2 also revealed the effect of school type on pupils' academic performance in Literacy in Irepodun Local Government Area of Kwara State. There was no significant effect of school type on pupils' academic performance in Literacy in Irepodun Local Government Area of Kwara State ( $F_{(1; 119)} = .796$ ;  $P > 0.05$ ). The hypothesis is therefore not rejected in the light of the result since the significant value is greater than 0.05.

### Discussion of Findings

Finding of this research study further showed that there was no significant main effect of gender on pupils' Literacy academic performance in Irepodun Local Government Area of Kwara State. This implies that gender as a variable in this study has no significant effect on pupils' academic performance in Literacy in Irepodun Local Government Area of Kwara state, this might that all the Learners learn at the same level that does not give room for differences in the mean scores, not only that, it may as be as a result of equal opportunities given to all Learners during the treatment period.

This was supported by Ganiyu (2016) who postulated that there was no significant main effect of gender on pupils' academic performance in Literacy. This finding was corroborated by Okoye (2008) who submitted that gender have no significant effect on pupils' academic performance but rather personality is the determination pupils' academic performance. However, this finding negated the findings of Ajayi (2017) that reported that female pupils performed significantly different than their male counterpart.



Another finding of this study showed that there was no significant main effect of school type on pupil's academic performance in literacy in Irepodun Local Government Area of Kwara State. This showed that school-type had no significant effect on pupils' academic performance in Literacy. This finding do agreed with the findings of Alimi, et al (2012) who revealed in a study conducted that there was no significant difference in the performance based on school type. It was corroborated with study of Alimi, et al (2012) who conducted a study on a School-type and facilities on academic performance of secondary school students in Ondo state and the results revealed that school-type has no significant effect on pupils' academic performance. This was disagreed with the study of Philias and Wanjobi (2011) who opined that school-type had significant effect on pupils' academic performance in school.

## Conclusion

Based on the findings of this study, it was concludes that Semantic-mapping and Know-What-Learn strategies are effective in teaching Literacy in Irepodun Local Government Area of Kwara State. This implies that these strategies could be adopted in teaching literacy to improve academic performance at primary school level.

## Recommendations

Based on the conclusions of this study, the following recommendations were made:

1. The teachers should make sure that there will be no gender discriminations in schools in order to motivate all pupils during teaching and learning process.
2. The school authorities should provide age appropriate learning environment to enhance appropriate teaching strategy for literacy.

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