Effectiveness of Advance Organizers Learning Strategy on the Comprehension Ability of Lower Primary School Pupils in IFE Central Local Government Area, Osun State

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Abstract: The study examined the effects of advance organizers learning strategy on reading comprehension, spelling and vocabulary development of lower primary schools in Ile-Ife. The design used was pretest-posttest quasi experimental. A sample of thirty-nine pupils of two intact classes, drawn from two randomly selected lower primary school pupils in Ile Central Local Government Area. Pupils reading Comprehension Test was administered to the population selected and the data collected were analyses using t-test. The experimental group (Group A) had a mean of 5.59 while the control group (Group B) had a mean of 4.61, the results of the experiment led us to accept that Advance Organizers has a significant effect on reading comprehension of Lower private primary school pupils. The results of the analyses after using appropriate inferential and descriptive statistics showed us that Advance Organizers aids comprehension and facilitate good retention and also help learners connect prior knowledge with what they are about to learn, this is in line with Ausubel (1963). Hence, the study established a significant positive effect in teaching lower private pupils using advance organizers learning strategy in reading comprehension. Advance Organizers has been proved to facilitate reading comprehension, however, it is recommended that teachers should motivate and guide pupils when Advance Organizers learning strategy is to be used and also government and schools should organize workshops and seminars for teachers in other to foster positive result in the performance of pupils in reading comprehension.

Keywords: Advance Organizers learning strategy, concept mapping. Reading comprehension

1. INTRODUCTION

Good reading skills starts from the lower elementary school, it goes a long way in determining how effective and fluent one’s reading ability will be. However most of the individuals in our society do not attach much importance to it, thereby putting the student at risk of developing poorly in reading. There are several factors militating against the effective reading comprehension in schools. Oyetunde and Unoh (1986) list impediments to positive reading habits and attitude, these factors include lack of materials, poor preparation of teachers, lack of interest, poor libraries or none at all, home background and lack of adult readers as models. Since good and fluent reading of comprehension in elementary school goes a long way in determining the reading fluency in other levels in life, it has since become the duty of the teacher and the learner him or herself to try various strategies in enhancing the teaching and learning effective reading of comprehension. Several learning strategies which are planned method or techniques for facilitating and enhancing learning have been discovered, examples of these strategies used in reading include; word identification strategy, self-questioning strategy, inference strategy, background Knowledge Probe, and also advance organizers’ learning strategy and host of others.

However, studies carried out at the post primary and tertiary levels using advance organizers learning strategy have proven to be a very useful tool for teachers to help students understand, retain and remember new learning materials. The advance organizer learning strategy is used to link new information to old information, it directs students’ attention to what is important in the upcoming lesson, it also highlights relationships among ideas that will be presented and also remind students of relevant information that they already have.

Reading is a complex cognitive process of decoding symbols in order to construct or derive meaning (reading comprehension). It is a means of language acquisition, of communication, and of sharing information and ideas. Like all language, it is a complex interaction between the text and the reader.
which is shaped by the reader’s prior knowledge, experiences, attitude, and language community which is culturally and socially situated. The reading process requires continuous practice, development, and refinement. Because reading is such a complex process, it cannot be controlled or restricted to one or two interpretations. There are no concrete laws in reading, but rather allows readers an escape to produce their own products introspectively. This promotes deep exploration of texts during interpretation. Readers use a variety of reading strategies to assist with decoding (to translate symbols into sounds or visual representations of speech) and comprehension. Readers may use context clues to identify the meaning of unknown words. Readers integrate the words they have read into their existing framework of knowledge or schema.

Reading comprehension is the ability to read text, process it and understand its meaning. An individual’s ability to comprehend text is influenced by their traits and skills, one of which is the ability to make inferences. Reading comprehension is defined as the level of understanding of a text. This understanding comes from the interaction between the words that are written and how they trigger knowledge outside the text/message. Comprehension is a “creative, multifaceted process” dependent upon four language skills: phonology, syntax, semantics, and pragmatics. Proficient reading depends on the ability to recognize words quickly and effortlessly. It is also determined by an individual’s cognitive development, which is “the construction of thought processes”. Some people learn through education or instruction and others through direct experiences. There are specific traits that determine how successfully an individual will comprehend text, including prior knowledge about the subject, well developed language, and the ability to make inferences. It also includes ability to be self-correcting to solve comprehension problems as they arise. If word recognition is difficult, students use too much of their processing capacity to read individual words, which interferes with their ability to comprehend what is read.

Many strategies have been put in place to make reading comprehension passages easy some of which include collaborative learning, labeling, word identification strategy, self-questioning strategy, inference strategy etc. One of those strategies which we want to check its effectiveness is the advance organizers’ learning strategy.

In the 1960s, cognitive psychology initiated work on the development of an invaluable tool that enabled educators to provide students with meaningful learning, instead of relying only on rote learning for memorization tasks (Ausubel, 1960; Ausubel, 1978; Ivie, 1998). Cognitive psychologists believed that all of a person’s prior knowledge was stored in the cognitive structures of the brain. Therefore, in order for acquisition of new knowledge to take place and to be meaningful, prior knowledge or schema needed to be activated within these structures by means of an introductory instructional strategy (Ausubel, 1978; Ivie, 1998; Joyce & Weil 1986; Kalmes, 2005; Postrech, 2002). Thus, Ausubel (1963) developed the new strategy that he termed advance organizers. Advance organizers have evolved since that time to incorporate many forms. An advance organizer is information that is presented prior to learning and that can be used by the learner to organize and interpret new incoming information (Mayer, 2003). These organizers are introduced in advance of learning itself, and are also presented at a higher level of abstraction, generality, and inclusiveness; and since the substantive content of a given organizer or series of organizers is selected on the basis of its suitability for explaining, integrating, and interrelating the material they precede, this strategy simultaneously satisfies the substantive as well as the programming criteria for enhancing the organization strength of cognitive structure.” (Ausubel, 1963:81) By stimulating schema to enable students to link prior knowledge with new concepts, advance organizers provide a kind of “mental scaffolding to learn new information” (Hassard, 2005, p. 1). Thus, the new information is easier to understand, learn, retain, and recall (Ausubel, 1960). They may be designed to facilitate orientation to new information, sequential organization through a task, elaboration of a concept, thematic or dramatic organization of narrative discourse, or other forms of cognitive organization.

Reading as an activity is described to be a complex one. Its complexity is greatly taking its toll on Nigerian pupils as reported by Okewole, (2009) and Adegbite, (2010). Most of the public examination results revealed poor performance in English Language and other subjects which are attributed to poor reading comprehension of what are demanded by the examiners. Also, this problem is also traced to poor foundational knowledge of reading skills. It therefore behooves on the teachers to find a way of simplifying the complexity of reading through the use of appropriate reading strategies. Going by the complexity of reading, it becomes very imperative to adopt and utilize reading strategies such as
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advance organizers, to simplify and enhance reading comprehension of pupils right from early childhood stage, hence this study.

2. OBJECTIVES OF THE STUDY

The objectives of the study are to:

(i) Examine the effectiveness of the use of advance organizers learning strategy on reading comprehension ability of lower elementary school pupils.

(ii) Investigate the difference in the reading comprehension ability of both male and female students taught using advance organizers learning strategy.

(iii) Ascertain the performance of pupils in reading comprehension based on age difference.

3. RESEARCH HYPOTHESES

The following are the research hypothesis for the study:

(i) There is no significant difference in the reading comprehension ability of lower primary school pupils taught using advance organizers learning strategy and those taught with conventional teaching method.

(ii) There is no significant difference in the reading comprehension ability of both male and female students in lower primary schools taught using advance organizers learning strategy.

(iii) There is no significant difference in the reading comprehension ability of the pupils on the basis of age.

4. CONCEPT OF READING

Reading according to is a complex cognitive process of decoding symbols in order to construct or derive meaning (reading comprehension). According to Okewole (2009) it is a means of language acquisition, of communication, and of sharing information and ideas. It is the process of extracting meaning from written or printed text. Like all languages, it is a complex interaction between the text and the reader which is shaped by the reader’s prior knowledge, experiences, attitude, and language community which is culturally and socially situated. The reading process requires continuous practice, development, and refinement. In addition, reading requires creativity and critical analysis. Consumers of literature make ventures with each piece, innately deviating from literal words to create images that make sense to them in the unfamiliar places the texts describe. Because reading is such a complex process, it cannot be controlled or restricted to one or two interpretations. There are no concrete laws in reading, but rather allows readers an escape to produce their own products introspectively. This promotes deep exploration of texts during interpretation. Readers use a variety of reading strategies to assist with decoding (to translate symbols into sounds or visual representations of speech) and comprehension. Readers may use context clues to identify the meaning of unknown words. Readers integrate the words they have read into their existing framework of knowledge.

5. IMPORTANCE OF READING COMPREHENSION

Reading comprehension according to Wikipedia is the ability to read text, process it and understand its meaning. An individual's ability to comprehend text is influenced by their traits and skills, one of which is the ability to make inferences. If word recognition is difficult, students use too much of their processing capacity to read individual words, which interferes with their ability to comprehend what is read. Reading comprehension is defined as the level of understanding of a text/message. This understanding comes from the interaction between the words that are written and how they trigger knowledge outside the text/message. Comprehension is a "creative, multifaceted process" dependent upon four language skills: phonology, syntax, semantics, and pragmatics. Proficient reading depends on the ability to recognize words quickly and effortlessly. It is also determined by an individual's cognitive development, which is "the construction of thought processes". To Lindsay (2011):

(1) Reading exercises our brains. Reading is a much more complex task for the human brain than, say, watching TV is. Reading strengthens brain connections and actually builds new connections.

(2) Reading improves concentration. Again, this is a bit of a no-brainer. When reading, we have to sit still and quietly so we can focus on what we’re reading. If we read regularly as we grow up, we develop the ability to do this for longer and longer periods.

(3) Reading teaches us about the world around us. Through reading, we learn about people, places and events outside their own experience. We are exposed to ways of life, ideas and beliefs about
the world which may be different from those which surround them. This learning is important for its own sake however it also builds a store of background knowledge which helps younger us learn to read confidently and well. People who read often and widely get better at it. Since, practice makes perfect in almost everything we humans do and reading is no different.

(4) Reading improves our vocabulary, leads to more highly-developed language skills and improves the child’s ability to write well. This is because we learn new words as they read but also because we unconsciously absorb information as we read about things like how to structure sentences and how to use words and language effectively. Learning to read is about listening and understanding as well as working out print. Through hearing stories, children are exposed to a rich and wide vocabulary. This helps them build their own vocabulary and improve their understanding when they listen, which is vital as they start to read. It’s important for them to understand how stories work as well. Even if your child doesn’t understand every word, they’ll hear new sounds, words and phrases which they can then try out, copying what they have heard.

(5) Reading develops our imagination. This is because when we read our brains translate the descriptions we read of people, places and things into pictures. When we’re engaged in a story, we’re also imagining how the characters are feeling. We use our own experiences to imagine how we would feel in the same situation.

(6) Reading is a great form of entertainment! Reading relaxes the body and calms the mind. This is an important point because these days we seem to have forgotten how to relax and especially how to be silent. The constant movement, flashing lights and noise which bombard our senses when we’re watching TV, looking at a computer or playing an electronic game are actually quite stressful for our brains. When we read, we read in silence and the black print on a white page is much less stressful for our eyes and brains.

6. CONCEPT OF LEARNING STRATEGIES

Learning strategies are used by students to help them understand information and solve problems. A learning strategy is a person’s approach to learning and using information. Students who do not know or use good learning strategies often learn passively and ultimately fail in school. Learning strategy instruction focuses on making the students more active learners by teaching them how to learn and how to use what they have learned to solve problems and be successful.

The Learning Strategies Curriculum has the necessary breadth and depth to provide a well-designed scope and sequence of strategy instruction. The curriculum is divided into strands, or categories of skills. One strand addresses how students acquire information. It includes strategies for learning how to paraphrase critical information, picture information to promote understanding and remembering, ask questions and make predictions about text information, and identify unknown words in text. A second strand helps students study information once they acquire it. It includes strategies for developing mnemonics and other devices to aid memorization of facts as well as strategies for learning new vocabulary. These strategies help prepare students for tests. A third strand helps students express themselves. It includes strategies to help students write sentences and paragraphs, monitor their work for errors, and confidently approach and take tests.

No single strategy is a panacea. For example, we have reading strategies that help students figure out what a word is, comprehend what they’re reading, acquire vocabulary, and understand the structure of text. All of these strategies are essential for a well-integrated, balanced reading program. Likewise, an array of strategies in other areas is necessary for student success. Strategies for reading includes: Word Identification Strategy, Self-Questioning Strategy, Visual Imagery Strategy, Inference Strategy, Fundamentals of Paraphrasing and Summarizing, Paraphrasing Strategy, Word Mapping Strategy. Strategies for studying & remembering information; FIRST-Letter Mnemonic Strategy, Paired Associates Strategy, LINCS Vocabulary Strategy, Listening and Note-Taking.

7. ADVANCE ORGANIZERS LEARNING STRATEGY

Advance organizers learning strategy was popularized by David Ausubel, first in 1968. An advance organizer is a tool used to introduce the lesson topic and illustrate the relationship between what the students are about to learn and the information they have already learned. An advance organizer is a cognitive instructional strategy used to promote the learning and
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retention of new information. Advance Organizers are statements, which are introduced in advance of the learning material itself and are designed to help students learn and retain new material. The Advance Organizer links the new material to more abstract ideas, which already exist in the learners' mind. An advance organizer is defined as an instructional unit that is introduced in advance of direct instruction. It is generally presented at a higher level of abstraction and is intended to connect learners' prior knowledge to what they will learn (Ausubel, 1963).

Analogies and metaphors are frequently used as advance organizers because they help students recognize that the topic they are beginning to learn is not totally new, but rather can be related to something they are already comfortable with. This not only helps the students better understand the new concept, but it also helps to encourage and motivate students, as it makes them more confident about the material to come. They also help teachers fit the new information into a larger framework or existing schema. They help students understand the governing questions, issues and propositions that are reflected in that hierarchy.

8. THEORETICAL FRAMEWORK

The Subsumption Theory (Ausubel, 1963) is the springboard for this study. The central idea in Ausubel's theory is what he described as meaningful learning. It is a process in which new information is related to an existing relevant aspect of an individual's knowledge structure. New learning results in further changes in brain cells, but some cells, affected during meaningful learning are the same cells that already store information similar to the new information relevant to information already stored; the nature and extent of neural associations also increase. It is believed that during meaningful learning, new information is assimilated into existing relevant subsumers in cognitive structure. New meaningful learning results in further growth and modification of an existing subsumer. Depending on the experience history of the individual, subsumer can be comparatively large and well developed, or they may be limited in the amount and variety of elements they contain. Ausubel (1962) defines Subsumption as the process of linking new information to pre-existing segments in the cognitive structure. When the new ideas are related to the already existing ones in the learner's repertoire, the learner is able to discriminate and compare the ideas in a manner that remembering of the new ideas is enhanced.

9. CONCEPT MAPPING

Concept maps are used to stimulate the generation of ideas, and are believed to aid creativity. Concept mapping is also sometimes used for brain-storming. Although they are often personalized and idiosyncratic, concept maps can be used to communicate complex ideas. Formalized concept maps are used in software design, where a common usage is Unified Modeling Language diagramming amongst similar conventions and development methodologies. Concept mapping can also be seen as a first step in ontology-building, and can also be used flexibly to represent formal argument. Concept maps are widely used in education and business.

10. METHODOLOGY

The population for this study included all lower private primary school pupils in Ife Central Local Government. Two primary schools were randomly selected from the population. The research design used was pretest-posttest quasi-experimental to investigate the effectiveness of advance organizers learning strategy on reading comprehension of lower primary pupils in Ile-Ife. The research instrument used for the study was drawn from the pupils textbook; a reading comprehension passage from Premier English for Nigerian Primary Schools Book 2 was employed. The passage has some items under it which was administered as pretest Pupil Reading Comprehension Test (PRCT) which was administered before the treatment. Afterwards, the experimental group was exposed to the treatment (Advance organizer learning strategy) through the use of a visual/graphics type of advance organizer (concept mapping) in the selected reading comprehension passage while the control group was taught using the conventional teaching method. At the end of the treatment, post-test was conducted on the two groups using the same instrument (PRCT) used during the pre-tests. Appropriate descriptive and inferential statistics were used to analyze the data generated for the study.
11. RESULTS AND DISCUSSION

The results of the analyses of the data generated in this study are presented below;

**Ho1:** There is no significant difference in the reading comprehension of lower primary school pupils taught using advance organizers learning strategy and those taught with convectional teaching method.

**Table1. T-test comparison of comprehension scores of pupils taught using advance organizers learning strategy and those taught with conventional teaching method.**

<table>
<thead>
<tr>
<th>Group</th>
<th>Number (NO)</th>
<th>Mean</th>
<th>Standard Deviation (SD)</th>
<th>Degree of Freedom (DF)</th>
<th>T</th>
<th>Sig. D</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental (Advance organizers)</td>
<td>16</td>
<td>5.59</td>
<td>2.71</td>
<td>15</td>
<td>8.73</td>
<td>0.000</td>
<td>Sign</td>
</tr>
<tr>
<td>Control (Conventional)</td>
<td>23</td>
<td>4.61</td>
<td>3.20</td>
<td>22</td>
<td>6.90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

α ≤ 0.000

**Significant tPRCTdf = 37**

Table 1 reveals a significant difference between the mean comprehension scores of the experimental and control group in favour of the experimental group (t = 8.73). The mean of the experimental group (Advance organizers) is 5.59 while the control group (conventional method) has 4.61. Therefore the null hypothesis is not accepted which therefore means that there is a significant difference in the reading comprehension of students taught using advance organizers learning strategy.

**Ho2:** There is no significant difference in the reading comprehension of both male and female students in lower primary schools taught using advance organizers learning strategy

**Table2. T-test comparison of both male and female students in lower primary schools taught using advance organizers learning strategy.**

<table>
<thead>
<tr>
<th>Group</th>
<th>Number (NO)</th>
<th>Mean</th>
<th>Standard Deviation (SD)</th>
<th>Degree of Freedom (DF)</th>
<th>T</th>
<th>Sig. D</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male =7</td>
<td>3.43</td>
<td>2.99</td>
<td>6</td>
<td>1.06</td>
<td>0.005</td>
<td>sign</td>
<td></td>
</tr>
<tr>
<td>Female =9</td>
<td>5.22</td>
<td>2.54</td>
<td>8</td>
<td>1.10</td>
<td>0.005</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

α ≤ 0.005

* Significant tPRCTdf=14

Table 2 reveals a highly significant difference between the mean comprehension scores of the male and female students taught using Advance organizers learning strategy. The mean for the male students is 3.43 while the mean for the female student is 5.22, therefore the null hypothesis is rejected which means that there is a highly significant difference in the reading comprehension of male and female students taught using Advance organizers.

**Ho3:** There is no significant difference in the reading comprehension of the pupils based on age difference.

**Table3. T-test comparison of comprehension scores of the age difference.**

<table>
<thead>
<tr>
<th>Group</th>
<th>Number (NO)</th>
<th>Mean</th>
<th>Standard Deviation (SD)</th>
<th>Degree of Freedom (DF)</th>
<th>T</th>
<th>Sig. D</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-7 &amp; 8-9</td>
<td>13</td>
<td>4.38</td>
<td>3.20</td>
<td>12</td>
<td>0.190</td>
<td>0.01</td>
<td>Sign</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>4.90</td>
<td>3.34</td>
<td>9</td>
<td>0.605</td>
<td>0.005</td>
<td></td>
</tr>
</tbody>
</table>

α ≤ 0.005

tPRCTdf = 21

Significant & **Significant
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Table 3 reveals a highly significant difference between the mean comprehensions score of the pupils based on age difference. The mean score of pupils below the age of 7 is 4.38 while those above 7 is 4.90. Therefore the null hypothesis is not accepted which means that there is a highly significant difference in the reading comprehension of pupils based on age

**Ho4:** There is no significant difference in the pre-test and post-test score of lower primary school pupils taught using advance organizers learning strategy.

Table 4. T-test comparison of the pre-test and post-test (PRCT) score of lower primary school pupils taught using advance organizers learning strategy.

<table>
<thead>
<tr>
<th>Group</th>
<th>Number (NO)</th>
<th>Mean</th>
<th>Standard Deviation (SD)</th>
<th>Degree of Freedom (DF)</th>
<th>t</th>
<th>Sig.D</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>16</td>
<td>4.44</td>
<td>2.80</td>
<td>15</td>
<td>6.63</td>
<td>0.000</td>
<td>Sign</td>
</tr>
<tr>
<td>Post-test</td>
<td>5.59</td>
<td>2.71</td>
<td>15</td>
<td>8.73</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

α≤0.000

**Significant**

tPRCT df=15

Table 4 reveals a significant difference in the pre-test and post-test score of the pupils reading comprehension. The pre-test has a higher mean of 4.44 while the pre-test has a mean of 5.59. Therefore the null hypothesis is not accepted which means that there is a significant difference in the pre-test and post-test (PRCT) scores of lower primary school pupils taught using advance organizers learning strategy.

12. DISCUSSION AND FINDINGS

The study investigated the effect of the use of Advance organizers learning strategy on reading comprehension of lower primary pupils’ in two selected primary schools.

Analysis of hypothesis one reveals a significant difference in the pre-test and post-test score of the pupils in the experimental group. The post-test had a higher mean of 5.59 while the pre-test had a mean of 4.44. Analysis of the hypothesis two reveals that there is a significant difference in the reading comprehension of pupils taught using Advance organizers and those taught using the conventional learning method. The pupils taught with Advance organizers learning strategy had a higher mean score of 5.59 than their counterpart in the control group who had the mean score of 4.61. This finding agrees with the earlier findings of Brookbank, Grover, Kullberg, & Strawser, (1999); Moore & Readence (1984). In the analysis of hypothesis three, there is a highly significant difference between the mean comprehension scores of the male and female students taught using Advance organizers learning strategy. The mean for the male students is 3.43 while the mean for the female student is 5.22.

Analysis of the hypothesis four reveals that there is a highly significant difference between the mean comprehension score of the male and female students taught using the conventional teaching method. The mean of the male is 4.38 while the mean of 4.90.

This study therefore seems to make it vivid that advance organizers learning strategy should be employed by teachers for reading comprehension of lower private primary pupils in order to facilitate better achievement in their reading comprehension.

13. CONCLUSION AND RECOMMENDATIONS

The result of the analyses carried out on the research hypotheses using appropriate description and inferential statistics showed that Advance organizers learning strategy, hence it can be said that advance organizers help to facilitate both learning and retention. This is in line with Ausubel (1963). Advance organizers through the use of concept maps help student become aware of the main ideas and allow for them to better their understanding of the relationship between them.

Based on the finding of this study, the following recommendations are hereby recommended to improve the use of advance organizers learning strategy in enhancing reading comprehension in lower private schools:
(i) More exciting learning strategies should be used by teachers instead of the conventional learning strategy as this would prompt readiness to learn by the pupils.

(ii) There should be more relevant and adequate teaching and learning materials in lower primary schools. It is through this, that the use of advance organizers learning strategy can be improved.

(iii) Teachers should motivate and guide pupils when using advance organizers learning so as to foster positive results in their reading comprehension.

REFERENCES


