Improvisation Of Instructional Materials: A Veritable Option In The Teaching And Learning Of Social Studies In Secondary Schools, Kogi State, Nigeria

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Abstract
The researchers examined improvisation of instructional materials: a veritable option in the teaching and learning of social studies in secondary schools in Kogi State, Nigeria. The study adopted survey design. Two research questions and two hypotheses guided the study. The population of this study consists of 678 Social Studies teachers and principals from the 139 public secondary schools in Kogi state. 216 (180 social studies teachers and 36 Principals) from 36 public secondary schools from the population, the researcher employed multi-stage and disproportionate sampling technique to sample 180 Social Studies Teachers. A researcher made instrument titled “Improvisation of Instructional Materials Principals and Teachers Scale (IIMPTS) was used in gathering data for the study. The instrument was a 12 item questionnaire divided into two sections. Three copies of the rating scale were distributed to two specialist in Education Measurement and Evaluation, and one specialist in Social Studies Unit all in Prince Abubakar Audu University, Ayingba. The content of the instrument was validated by specialists in education measurement and evaluation and social studies with a reliability co-efficient index of 0.81 obtained using Cronbach alpha statistics. This was considered adequate for the study. Mean statistics was used to answer the research questions while z-test was used to test the hypotheses @ 5% level of error. The findings of the study revealed that teachers needs training to be able to use local materials to explain concepts to students and only trained teachers can use improvised materials to make learning very clear are perceived to be extent do teachers requires training to be able to employ improvisation of materials in the teaching of social studies in secondary schools. The hypothesis was therefore not rejected but accepted. The researchers recommended that since teachers needs training to be able to use local materials to explain concepts to students, and only trained teachers can use improvised materials to make learning very clear, Government should organize trainings, workshops, and seminar for teachers to enable them build skills in the use for improvisation of local materials.

Key words: Social Studies, Improvisation, Instructional materials, Resources for improvisation.

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I. Introduction
Education in several nations of the world is essentially introduced to meet specific needs and aspirations of their existing environment. In Nigeria, this particular consciousness has led the Federal Government to design a National Policy on Education which sets out national objectives for all levels of education (Pre-Primary, Primary, Secondary and the Tertiary). These objectives in turn are designed to serve as the overall objectives of social studies at the primary and junior secondary level of education as to develop the ability to adapt to his or her changing environment, become responsible and disciplined individuals capable and willing to contribute to the development of their societies, inculcate the right types of values, develop a sense of comprehension towards other...
people, their diverse cultures, history, and those fundamental things that make them human and to develop the capacity to recognize the many dimensions of being human in different cultural and social contexts. Shaibu and Utulu, (2014); Shaibu (2020) observed that social studies in Nigeria has a special task to perform in transforming Nigeria into a modern state through nurturing to create awareness of and sensitivity to man’s environment, and influence man’s attitudes positively to social, cultural political values and total environment.

In the study of Shaibu (2020) he reported that the objective of Social Studies is yet to be achieved. This is due to poor teaching and inadequacy of instructional tools needed to promote teachers’ efficiency and improve students’ academic performance. Elsewhere, in the opinion of Utulu and Shaibu (2013) despite the fact that instructional materials are essential tools that can make learning practical and knowledge acquisition easier, they are not readily available in many schools leading to low level of performance of learners in examinations. Therefore the need to adopt appropriate strategies with the use of improvisation of instructional materials in development of learners’ intellectual abilities and attainment of teaching and learning cannot be over-emphasized.

Improvisation has been defined as the provision of a substitute made from locally or readily available raw materials for producing real or original equipment or materials. The substitute or alternative materials are expected to take the place of the real or original materials with high precision as time, money and other facilities. Elsewhere Shaibu (2020) defines improvisation as the act of using materials or equipment obtainable from local personnel to enhance instruction. Naobi (2005) pointed out that there are two forms of improvisation in teaching, which they identified as (1) Role substitute and (2) Role stimulation. According to them, in role substitution, the original materials are modified in order to perform novel functions in an experimental setting, whereas in the role stimulation the actual construction of instructional materials are undertake because the apparatus are too expensive or not available originally. The designing and production of such instructional materials may be successfully accomplished through the ingenuity and resourcefulness of the teachers or in cooperation with his students (Utulu, 2007). Jekayinfa (2012) reported the importance of improvisation of instructional materials to include making learning concrete and real and more teacher-student resource oriented. Abdu-Raheem (2014) submitted that improvisation of locally made teaching aids could assist to improve quality of graduates turn out from schools and standard of education generally. Abdu-Raheem and Oluwagbohunu (2015) reported that resourceful and skillful teachers should improvise necessary instructional materials to promote academic standard in Nigerian schools.

The importance of improvisation of instructional materials cannot be overemphasized. Improvised materials help to arouse and sustain learners' optimism and enthusiasm; access expert assistance and technical support; stay informed of innovative development, confidence to share ideas with other teachers; interpret research and statistical data, diplomatically handle students' resistance; align improvised materials with curriculum guidelines and timelines; and develop materials to cater for individual learner's needs in overcrowded classrooms. The use of improvisation in teaching makes the concept more practical and subsequently reduces abstractions. Locally produced instructional materials encourage creative expression and foster experimentation, sensitive to tactile and visual experience (Balogun., Barth & Tanko, 2000).

Again, they are cost effective, because they could be obtained from the local environment. They are generally very safe to use during demonstrations and experiments; it might not be inciting injuries, which means it could be hazard free. Improvised capable of in instructional materials give teacher/students the pride of using their talents, allows a teacher to reproduce his potentials, in concrete form and increase teacher’s knowledge of the subject matter (Shodeind, 2015). In addition, improvisation of instructional materials serves as a motivation to learners in as much as they participate in the activities during the production of the materials and also arouse learners' interest. Motivation for improvisation is very important in the teaching and learning process as the use of these materials minimizes concerns about breakage, repair and loss since they are readily available in the environment. It informs both students and teachers that alternatives for some of the conventional science teaching materials are possible. It also experiments with the materials around them. It also shows that people can do scientific experiment could lead to the discovery of new knowledge, and students' talents may be discovered. Using improvised instructional materials assist teachers economically and may make students more interactive. Beyond these, it makes students make use of their intellectual ability in the process of teaching and learning (Onasanya, & Omeseowo, 2011).

The instructional materials locally made using resources in the environment as alternative is called improvised instructional materials. These will include pictures, beads, lock and lockets, tred in making costume, toys, flashcards, worksheets, maps, atlases, globes, graphs, charts, posters and others. Improvised instructional materials may not be identical with the traditional one; therefore teachers should be skillful in their handling and using them (Mberekpe, 2013). The teacher initiates the production of the alternative resources, which can be constructed by either the teacher or the local artisans e.g. carpenters, blacksmiths and others. The teacher may use the students for improvising some of the needed materials or equipment. This may help to develop creativity and the spirit of resourcefulness among the teacher and the students. Most importantly, the teacher should make sure
that these materials produced or substituted will be able to serve the same purpose as the traditional instructional materials (Mberekpe, 2013).

Resources for improvisation of instructional materials have been a challenge in schools. The problems attached to improvisation can be attributed to a number of factors such as financial implication, lack of skills and strategies for improvisation and large class size arising from free and compulsory secondary education. Other factors include time constraint, school location where most secondary schools are located in rural areas, unavailability of experts and sometime inability to identify local materials (Aina, 2013). Sometimes the cost involved in designing these materials may be more expensive than buying the original ones. Again, the available material may not be suitable or appropriate for the lesson and can subsequently yield unexpected results; this can make learning more difficult and frustrating. Stephen (2015) problems associated to improvisation include: lack of financial support from the school principals, lack of skills and strategies for improvisation and large class size arising from free and compulsory Secondary education, school location where most Secondary Schools are located in rural areas, time constraint, unavailability of producer goods or tools, inability to identify local materials and lack of exposure on improvisation on the part of teachers. Inadequate training, poor funding, lack of functional workshops, lack of regular supervision of teachers, poor motivation are among the factors hindering effective production and utilization of teacher-made instructional materials (Achimugu & Onojah, 2017).

Empirically, the result of Odu (2013) revealed that most of the teachers does not improvise or utilized improvised materials. Most of them were ignorant of the existence of the resource materials for introductory technology equipment. Some of the problems militating against improvisation were identified as lack of fund, motivation, creativity and time. Also, Mensah (2015) discovered that the improvised instructional materials produced the same performance as standard instructional materials. From the results of the study, it can be deduced that improvised instructional materials were very useful in teaching the concept.

Studies have shown that Secondary School students are exhibiting poor performance in Social Studies (Shodeinde, 2015). This poor performance has resulted to poor achievement in examinations (Shodeinde, 2015). In our match towards technological advancement, we need nothing short of good achievement in Social Studies at all level of schooling. Unfortunately, achievement of students in Social Studies has not improved in the last decade (Shodinde, 2015). The researcher linked the poor achievement trend in Social Studies particularly to the lack of improvised instructional materials in schools due to some factors such as knowledge of the teachers in creating improvised teaching materials, accessibility to resources for improvised instructional materials and poor funding of schools. The poor funding of schools has hindered the principals from providing the teachers with adequate instructional resources. In this study, the researchers probe to know the extent teachers require training to be able to employ improvised instructional materials in teaching and learning. This is the thrust of this study.

The main purpose of this study is to investigate improvisation of instructional materials: a veritable option in the teaching and learning of social studies in secondary schools in Kogi State. Specifically, the study sought to:

1. ascertain if teachers requires training to be able to employ improvisation of materials in the teaching of social studies in secondary schools, and
2. determine teachers accessibility to resources for improvisation of materials for the teaching and learning of social studies in secondary schools.

The following research questions were posed by the researchers in line with the purpose to guide the study:

1. To what extent do teachers requires training to be able to employ improvisation of materials in the teaching of social studies in secondary schools?
2. What is the extent accessibility to resources for improvisation of materials for the teaching and learning of social studies in secondary schools?

The following null hypothesis is formulated to guide the study

\[ H_0: \text{ The mean response of principals and teachers on the extent they require training to be able to employ improvisation of materials in the teaching of social studies in secondary schools is not significantly different.} \]

\[ H_1: \text{ The mean response of principals and teachers on the extent accessibility to resources for improvisation of materials for the teaching and learning of social studies in secondary schools is not significant.} \]

II. Methodology

The study adopted survey design. Two research questions and Two hypotheses guided the study. The population of this study consists of 678 Social Studies teachers and principals from the 278 public secondary schools in Kogi State. 216 (180 social studies teachers and 36 Principals) from 36 public secondary schools from the population, the researcher employed multi-stage and disproportionate sampling technique to sample 180 Social Studies Teachers students. A researcher made instrument titled “Improvisation of Instructional Materials Principals and Teachers Scale (IIMPTS) was used in gathering data for the study. The instrument was a 20 item questionnaire divided into two sections. Section A required the demographic information from the respondents, while section B to elicit information on the facilities, and instructional materials available and accessible to the
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students. The instrument contains 30 items in a tabular form. The respondents were advised to tick (✓) appropriately as they wish using the four point rating scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE). They are rated as 4 points, 3 points, 2 points and 1 point respectively. Three copies of the rating scale were distributed to two specialist in Education Measurement and Evaluation, and one specialist in Social Studies Unit all in Prince Abubakar Audu University, Ayingba. The content of the instrument was validated by specialists in education measurement and evaluation and social studies with a reliability co-efficient index of 0.81 obtained using Cronbach alpha statistics. This was considered adequate for the study. Mean statistics was used to answer the research questions while z-test was used to test the hypotheses @ 5% level of error. The research question was answered using mean score and standard deviation. The data were coded and the mean for each cluster of the items calculated, z-test statistics was used to test the hypotheses at 0.05 significant level. Mean score of 2.50 is the criterion mean for acceptance or rejection of items

III. Result

Research Question One
To what extent do teachers requires training to be able to employ improvisation of materials in the teaching of social studies in secondary schools?

<table>
<thead>
<tr>
<th>S / N</th>
<th>Items: ascertain if teachers requires training to be able to employ improvisation of materials in the teaching of social studies in secondary schools</th>
<th>Principals N=36 X̄1 SD</th>
<th>Decisio n</th>
<th>Teachers N=180 X̄2 SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Teachers needs training to be able to use local materials to explain concepts to students</td>
<td>2.53 .52 Agreed</td>
<td>2.54 .53 Agreed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Only trained teachers can use improvised materials to make learning very clear</td>
<td>2.59 .47 Agreed</td>
<td>2.50 .51 Agreed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Flip chart can be used by a trained teacher for improvisation</td>
<td>2.67 .55 Agreed</td>
<td>2.68 .56 Agreed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Trained teachers have positive feeling towards improvisation</td>
<td>2.62 .63 Agreed</td>
<td>2.61 .61 Agreed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Teachers who are trained can use hand tools for improvisification</td>
<td>2.64 .61 Agreed</td>
<td>2.62 .63 Agreed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Teachers needs adequate training to be to use materials around them for improvisation</td>
<td>3.00 .75 Agreed</td>
<td>3.05 .78 Agreed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Teachers training helps them to be effective in employing materials for improvisation</td>
<td>3.17 .82 Agreed</td>
<td>3.30 .99 Agreed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.75 .62</td>
<td>2.76 .66</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result in table 1 shows the mean scores of principals and teachers on the extent do teachers requires training to be able to employ improvisation of materials in the teaching of social studies in secondary school. The analysis shows that items 1, 2, 3, 4, 5, 6, and 7 were all agreed by principals and teachers since the mean scores and standard deviation recorded by the principals 2.75 and 0.62 and the teachers recorded 2.76 and 0.66 respectively, which were above the criterion mean of 2.50. This is an indication that teachers needs training to be able to use local materials to explain concepts to students, only trained teachers can use improvised materials to make learning very clear, flip chart can be used by a trained teacher for improvisation, trained teachers have positive feeling towards improvisation, teachers who are trained can use hand tools for improvisation, teachers needs adequate training to be to use materials around them for improvisation, and teachers training helps them to be effective in employing materials for improvisation are perceived to be extent do teachers requires training to be able to employ improvisation of materials in the teaching of social studies in secondary schools.
Access to resources for improvisation is open for teachers and students, no access for teachers and students, social studies students don’t access improvised materials for a group practical project, school have do not have a resources unit for improvised materials and school don’t support teachers with funds to get materials for improvisation.

Table 2 shows Z-test analysis of difference between the mean of principals and teachers on the extent they require training to be able to employ improvisation of materials in the teaching of social studies in secondary schools is not significantly different. The mean score and standard deviation of the 36 principals 2.75 and 0.62 respectively while the mean score and standard deviation of the 180 teaches at 2.76 and 0.66 respectively. With a degree of freedom of 215 and the Z-test statistics application, it revealed that the Z-calculated is 0.60 while Z-tabulated is 1.96. Since the Z-calculated is less than the Z-tabulated, it shows the null hypothesis is not rejected. The conclusion is that the mean ratings of principals and teachers do not significantly differ in their mean ratings on the extent they require training to be able to employ improvisation of materials in the teaching of social studies in secondary schools

Research Question Two
What is the extent accessibility to resources for improvisation of materials for the teaching and learning of social studies in secondary schools??

<table>
<thead>
<tr>
<th>SN</th>
<th>Items: determine teacher’s accessibility to resources for improvisation of materials for the teaching and learning of social studies in secondary schools</th>
<th>Principals N=36 $\bar{X}_1$ SD Decision</th>
<th>Teachers N=180 $\bar{X}_2$ SD Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Do you often access improvised materials in the school for teaching</td>
<td>1.63 .87 Not Accessible</td>
<td>1.61 .80 Not Accessible</td>
</tr>
<tr>
<td>9</td>
<td>Do you have a well-equipped resources unit that can be accessed for the improvisation of teaching materials</td>
<td>1.57 .73 Not Accessible</td>
<td>1.69 .82 Not Accessible</td>
</tr>
<tr>
<td>10</td>
<td>Access to resources for improvisation is open for teachers and students</td>
<td>1.30 .75 Not Accessible</td>
<td>1.44 .88 Not Accessible</td>
</tr>
<tr>
<td>11</td>
<td>Do your social studies students access improvised materials for a group practical project?</td>
<td>1.43 .72 Not Accessible</td>
<td>1.47 .85 Not Accessible</td>
</tr>
<tr>
<td>12</td>
<td>Does the school have a resources unit for improvised materials</td>
<td>1.65 .87 Not Accessible</td>
<td>1.61 .80 Not Accessible</td>
</tr>
<tr>
<td>13</td>
<td>Do the school support teachers with funds to get materials for improvisation</td>
<td>1.30 .75 Not Accessible</td>
<td>1.44 .88 Not Accessible</td>
</tr>
</tbody>
</table>

The result in table 3 shows the mean scores of principals and teachers on the extent accessibility to resources for improvisation of materials for the teaching and learning of social studies in secondary school. The analysis shows that items 8, 9, 10, 11, 12, and 13 were not accessible by principals and teachers since the mean scores and standard deviation recorded by the principals 1.48 and 0.78 and the teachers recorded 1.54 and 0.84 respectively, which were below the criterion mean of 2.50. This is an indication that do not you often access improvised materials in the school for teaching, do not have a well-equipped resources unit that can be accessed for the improvisation of teaching materials, no access to resources for improvisation is open for teachers and students, social studies students don’t access improvised materials for a group practical project, school have do not have a resources unit for improvised materials and school don’t support teachers with funds to get materials for improvisation.
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**Ho:: The mean response of principals and teachers on the extent of accessibility to resources for improvisation of materials for the teaching and learning of social studies in secondary schools is not significant.**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>n</th>
<th>X</th>
<th>SD</th>
<th>df</th>
<th>P</th>
<th>z-cal</th>
<th>z-tab</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principals</td>
<td>180</td>
<td>1.48</td>
<td>0.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers</td>
<td>36</td>
<td>1.54</td>
<td>0.84</td>
<td>215</td>
<td>P&gt;0.05</td>
<td>0.73</td>
<td>1.96</td>
<td>Not Rejected</td>
</tr>
</tbody>
</table>

Table 2 shows Z-test analysis of difference between the mean of principals and teachers on the extent of accessibility to resources for improvisation of materials for the teaching and learning of social studies in secondary schools is not significant. The mean score and standard deviation of the 36 principals 1.48 and 0.78 respectively while the mean score and standard deviation of the 180 teachers at 1.54 and 0.84 respectively. With a degree of freedom of 215 and the Z-test statistics application, it revealed that the Z-calculated is 0.73 while Z-tabulated is 1.96. Since the Z-calculated is less than the Z-tabulated, it shows the null hypothesis is not rejected. The conclusion is that the mean ratings of principals and teachers do not significantly differ in their mean ratings on the extent of accessibility to resources for improvisation of materials for the teaching and learning of social studies in secondary schools.

**IV. DISCUSSION OF FINDINGS**

The result of research question one indicated that teachers needs training to be able to use local materials to explain concepts to students, only trained teachers can use improvised materials to make learning very clear, flip chart can be used by a trained teacher for improvisation, trained teachers have positive feeling towards improvisation, teachers who are trained can use hand tools for improvisation, teachers needs adequate training to be to use materials around them for improvisation, and teachers training helps them to be effective in employing materials for improvisation are perceived to be extent do teachers requires training to be able to employ improvisation of materials in the teaching of social studies in secondary schools. The hypothesis was therefore not rejected but accepted, principals and teachers do not significantly differ in their mean ratings on the extent they require training to be able to employ improvisation of materials in the teaching of social studies in secondary schools. The findings of Odu (2013) revealed that 76.48% of the teachers lacked training about materials that could be improvised; the high ignorance level of 76.48% is disgusting and may be responsible for the teachers not being able to direct students to take part in improvising materials for the workshop. He further revealed that most of the teachers do not improvise or utilized improvised materials. Mberekpe (2013) in Biology, who in their separate studies found that students taught with improvised instructional materials performed significantly better than those taught with traditional method. Teachers who are trained to improvise do better in the classroom.

The study further revealed that principals and teachers don’t often access improvised materials in the school for teaching, do not have a well-equipped resources unit that can be accessed for the improvisation of teaching materials, no access to resources for improvisation is open for teachers and students, social studies students don’t access improvised materials for a group practical project, school have do not have a resources unit for improvised materials and school don’t support teachers with funds to get materials for improvisation. The conclusion is that the mean ratings of principals and teachers do not significantly differ in their mean ratings on the extent of accessibility to resources for improvisation of materials for the teaching and learning of social studies in secondary schools. In consonance to this finding, Ibe (1992) has emphasized that lack of fund; motivation, creativity, time, skills, basic materials and poor salary have hindered the teachers from preparing instructional materials or access improvised materials. Aina (2013).Other factors include time constraint, school location where most secondary schools are located in rural areas, unavailability of experts and sometime inability to access local materials for improvisation of materials. Finally, Shodeinde (2015) pointed out that it is very important for schools to have resource centers where teachers can access locally made instrument to improvise in class.

**V. Conclusion**

This study demonstrates the need for teachers to be trained in the use of improvisation of instructional materials. The study also revealed the need for teacher’s access to resources for improvisation of instructional materials. Finally, the study reveal that principals and teachers response do not significantly differ.

**VI. Recommendation**

1. Since teachers needs training to be able to use local materials to explain concepts to students, and only trained teachers can use improvised materials to make learning very clear, Government should organize trainings, workshops, and seminar for teachers to enable them build skills in the use for improvisation of local materials.
2. Principals and teachers don’t often access improvised materials in the school for teaching and do not have a well-equipped resources unit that can be accessed for the improvisation of teaching materials, Government
through the Ministry of Education should ensure public schools have resource unit where teacher could access materials for improvisation.

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