

Impact of Instructional Materials on Learning of Physical and Health Education in Junior Secondary Schools in Ekiti State, Nigeria

¹FAJEMBOLA, Nathaniel B. & ²ADIGUN, J.T. (Ph.D) & ³IBIKUNLE, Ayisat Arike

^{1,3}Department of Physical Health Education, College of Education, Ikere-Ekiti, Ekiti State, Nigeria

²School of Education, College of Education, Ikere-Ekiti, Ekiti State, Nigeria

Received: April 02, 2020

Accepted: June 03, 2020

ABSTRACT: The study investigated the importance of instructional material on learning of physical and health education students in Junior Secondary Schools Ikere Local Government Area of Ekiti State, Nigeria. Data were collected from three hundred (300) students. The instrument for the study was a 12 item self-structured questionnaire. The sample size of three hundred (300) respondents was used for the study. The respondents were from the junior classes of public Secondary schools in Ikere Local government area of Ekiti State. A test-re-test was employed to ascertain the reliability of the instrument, using Pearson's Product Moment Correlation (PPMC). A coefficient of 0.86 was obtained at 0.05 level of significant. The demographic data were analysed using descriptive statistics tools while Chi-square (X^2) was used to test all the hypotheses at 0.05 alpha level significance. The findings revealed that there is a significant impact of availability of instructional materials on the learning abilities of students in Physical and Health Education and also there is significant impact of the use of instructional materials by the teachers on the learning abilities of students in Physical and Health and Education. Conclusion and appropriate recommendations were made.

Key Words: Impact, instructional materials, Physical and Health Education, Junior secondary School

Introduction

Most physical and health education teachers are not well grounded in the use of selection of relevant instructional materials and as such the teaching and learning of physical and health education has not been optimal. The poor performance of students in physical and health education is evident in the overall results of students in Junior Secondary School Certificate Examinations (JSSCE). Despite the efforts being made by physical and health education teachers to revamp the performance of students, it appears much is still left to be done (Ankomah & Kwarteng, 2010).

Many teaching methods and approaches have been introduced but could not improve the achievement of students in physical and health education. Teachers teach the subject matter in abstraction thereby making it arduous task for learners and this has militated against the maximization of academic performance. In developed nations, physical and health education in colleges is taught using practical processes involving the use of computer and some audio-visual tools.

In an attempt to define the term instructional material, the two key words of instructional and media will be defined. However, it is pertinent to note that instructional material is otherwise known as instructional media. The term instruction according to Adekola (2008) is a deliberate arrangement of experience within the learning space, classroom, laboratory, workshop etc aimed at helping learners to achieve desirable changed in behaviour or performance.

Instructional materials are essential and significant tools needed for teaching and learning of school subjects to promote teachers' efficiency and improve students' performance. They make learning more interesting, practical, realistic and appealing. They also enable both the teachers and students to participate actively and effectively in lesson sessions. They give room for acquisition of skills and knowledge and development of self- confidence and self- actualization. Ibeneme (2000) defined teaching aids as those materials used for practical and demonstration in the class situation by students and teachers. Ikerionwu (2000) saw instructional materials as objects or devices that assist the teacher to present a lesson to the learners in a logical manner.

In his own perspective, Fadeiye (2005) saw instructional materials as visual and audio-visual aids, concrete or non-concrete, used by teachers to improve the quality of teaching and learning activities in Social Studies. Agina-Obu (2005) submitted that instructional materials of all kinds appeal to the sense organs during teaching and learning. Isola (2010) also described instructional materials as objects or devices that assist the teachers to present their lessons logically and sequentially to the learners. Abdu-Raheem and Oluwagbohunmi (2015) acknowledged that instructional materials are such used by teachers

to aid explanations and make learning of subject matter understandable to students during teaching learning process.

The use of instructional materials does not only encourage teachers and students to work collaboratively but also results in more cooperative learning activities among the students. Ikerionwu (2000) refers to instructional materials as objects or devices which help the teacher to make learning meaningful to the learners, The term instructional media as described by Adekola (2008) means all available human and material resources which appeal to the learners' sense of seeing, hearing, smelling, tasting, touching ,or feeling and which assist to facilitate teaching and learning. When the students are given the chance to learn through more senses than one, they can learn faster and easier.

The use of instructional material provides the teacher with interesting and compelling platforms for conveying information since they motivate learners to learn more. Instructional materials are channel of communication through which information passes for usage in educational situation in conjunction with the instructor. Going through the description of instruction material, it would be observed that the understanding behind the use of instructional material is to aid learners in their learning.

There have been several studies on instructional materials and academic achievement. For instance, Isola (2010), conducted a research on the effects of instructional resources on students' performance in West Africa School Certificate Examinations (WASSCE) in Kwara State, Nigeria. He correlated material resources with academic achievements of students in ten subjects. Data were collected from the subject teachers in relation to the resources employed in the teaching. The achievements of students in (WASSCE) for the past five years were related to the resources available for teaching each of the subjects. He concluded that material resources have a significant effect on student's achievement in each of the subjects.

Abdu-Raheem (2011) asserted that non availability and inadequacy of instructional materials are major causes of ineffectiveness of the school system and poor performance of students in schools. Ahmed (2003) confirmed that in most secondary schools in Nigeria, teaching and learning take place under a most un-conducive environment without access to essential materials. Eniayewu (2005) posited that it is very important to use instructional aids for instructional delivery to make students acquire more knowledge and to promote academic standard.

In addition, Ajayi and Ayodele (2001) stressed the importance of availability of instructional materials to achieving effectiveness in educational delivery and supervision in the school system. Ogbondah (2008) alerted on the gross inadequacy and underutilization of instructional materials necessary to compensate for the inadequacies of sense organs and to reinforce the capacity of dominant organs. He noted that school teachers should try their possible best in the provision of locally made materials in substitution for the standard ones to promote their lessons. Enaigbe (2009) noted that basic materials such as textbooks, chalkboard and essential equipment like computer, projector, television and video are not readily available in many schools.

In their study, Olumorin, Yusuf, Ajidagba & Jekayinfa (2010) observed that instructional materials help teachers to teach conveniently and the learners to learn easily without any problem. They asserted that instructional materials have direct contact with all sense organs. Kochhar (2012) supported that instructional materials are very significant learning and teaching tools. He suggested the needs for teachers to find necessary materials for instruction to supplement what textbooks provide in order to broaden concepts and arouse students' interests in the subject. According to Abolade (2009), the advantages of instructional materials are that they are cheaper to produce, useful in teaching large number of students at a time, encourage learners to pay proper attention and enhance their interest.

However, Akinleye (2010) attested that effective teaching and learning requires a teacher to teach the students with instructional materials and use practical activities to make learning more vivid, logical, realistic and pragmatic. Esu, Enukoha & Umoren (2004) agreed that instructional materials are indispensable to the effective teaching and learning activities. Ekpo (2004) also supported that teaching aids are always useful in supporting the sense organs. Despite the fact that instructional materials are essential tools that can make learning practical and knowledge acquisition easier, they are not readily available in Nigerian secondary schools leading to low level of performance of learners in government examinations (Abdu-Raheem, 2014).

According to Josua in Abiodun-Oyebanji & Adu (2007), instructional materials are all things that are used to support, facilitate, influence or encourage acquisition of knowledge, competency and skills. Abdu-Raheem (2014) encouraged teachers to improvise teaching aids because they are in great measure enhance learners' full participation in the lesson, gives room for inquiry, problem-solving, discussion and clarification of issues and ideas among students and the teacher. Afolabi & Adeleke (2010) identified non-availability, inadequacy and non-utilization of learning materials as a result of teacher's poor knowledge as

factors responsible for the use of lecture method. They recommended that students, teachers, parents, Parents/Teacher Association, government and philanthropists should be involved in improvising instructional materials for the teaching and learning in schools. Therefore, Ogbondah (2008) advocated for of teachers 'resourcefulness and also encouraged them to search for necessary instructional materials through local means to supplement or replace the standard ones.

Jekayinfa (2012) also identified the importance of improvisation of instructional materials as making learning concrete and real, substitutes one thing for another, allows the students to participate in the production of materials, economical 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 & Oluwagbohunmi (2015) also corroborated the idea that resourceful and skilful teachers should improvise necessary instructional materials to promote academic standard in Nigerian schools.

This study was designed to examine the impact of instructional material on learning of physical and health education in Junior Secondary Schools in Ikere local government area of Ekiti State, Nigeria.

Research Hypotheses

The following hypotheses were formulated and tested:

1. There is no significant impact of availability of instructional materials on the learning abilities of students in physical and health education.
2. There is no significant impact of the use of instructional materials by the teachers on the learning abilities of students in physical and health education.

Methodology

The research design employed in the study was survey type of descriptive research. It was designed to examine the impact of instructional materials on learning of physical and health education in Junior Secondary Schools (JSS II) in Ikere local government Area, Ikere-Ekiti, Ekiti State, Nigeria.

The target population for the study comprised of public junior secondary school students offering physical and health education in Ikere local government area of Ekiti State.

The sample size of three hundred (300) respondents was used for the study. The respondents were from the junior classes of public Secondary schools in Ikere Local government area of Ekiti State. Six (6) public junior secondary schools in Ikere local government area of Ekiti State were considered for the study out of the total ten (10) secondary schools in the local government area of the state. All public secondary schools in Ikere local government were purposely selected. Fifty (50) students were selected from each of the schools.

A structured questionnaire was used for data collection and this was divided into two sections. Section A sought demographic data of respondents. In section B, issues (12 items self-structured) relating to the availability and utilization of instructional materials for teaching of physical and health education students were raised. Respondents were required to respond by placing a tick at the appropriate column (YES or NO).

The instrument was validated by experts. Reliability of the instrument was ascertained by using the test, retest method of reliability. This was carried out on a selected junior secondary school which was not included in the main study. The instrument was administered on fifty (50) JS II physical and health education students outside the schools used for the study. The instrument was administered twice on the same set of respondents within a space of two weeks and the data collected was analyzed by using Pearson's Product Moment Correlation (PPMC). A correlation coefficient of 0.86 was realized which shows that the instrument is reliable.

The instrument was administered by the researcher and other research assistants. The researcher ensures that each item on the questionnaire was carefully read and understood by the respondents and where necessary, explanation was made so that the responses provided are adequate to the best of their knowledge. The completed questionnaires were retrieved immediately to ensure adequate submission.

Data was analysed using chi-square(χ^2) statistical analysis. It is a non-parametric econometric method often referred to as a goodness of fit test distribution.

Results and Discussion

Hypothesis 1

There is no significant impact of availability of instructional materials on the learning abilities of students in physical and health education.

Table 2: chi- square analysis of availability of instructional material on the learning abilities of students in physical and health education.

S/N	ITEMS	YES	NO	χ^2 -cal	χ^2 -tab	df
1.	Availability of track events kits enables my leaning abilities in physical and health education	215	85	56.333*	3.84	1
2.	Availability of gymnasium in our school boosts my cognitive abilities in physical and health education	202	98	36.053*		
3.	Availability of field events kits enables my leaning abilities in physical and health education	212	88	51.253*		
4.	Availability of Hockey events kits enables my leaning abilities in physical and health education	234	66	94.080*		
5.	Availability of Basketball court / kits facilitates my leaning abilities in physical and health education	255	45	147.000*		
6.	Availability of Volleyball court / kits boosts my cognitive abilities in physical and health education	267	33	182.520*		

$P < 0.05$; * = Significant

The table 1 above reveals that χ^2 -cal = 56.333, 36.053, 51.253, 94.080, 147.000 and 182.520 for items No 1, 2, 3, 4, 5 and 6 respectively is greater than χ^2 -tab = 3.84 showing that at $p < 0.05$ and $df=1$ (i.e. χ^2 -cal > χ^2 -tab) in all cases. Therefore, the result is significant; this implies that there is significant impact of the availability of instructional materials on the learning abilities of students in physical and health education.

Hypothesis 2

There is no significant impact of the use of instructional materials by the teachers on the learning abilities of students in physical and health education.

Table 2: chi- square analysis of use of instructional material and learning abilities of students in physical and health education.

S/N	ITEMS	YES	NO	χ^2 -cal	χ^2 -tab	df
1.	Teaching us in our school with track events kits enables my leaning abilities in physical and health education	262	38	167.253*	3.84	1
2.	Teaching us in our school at gymnasium in our school facilitates my leaning abilities in physical and health education	170	130	5.333*		
3.	Teaching us in our school with field events kits enables my leaning abilities in physical and health education	261	39	164.280*		
4.	Teaching us in our school with Hockey events kits facilitates my leaning abilities in physical and health education	226	74	77.013*		
5.	Teaching us in our school with Basketball court / kits enables my leaning abilities in physical and health education	264	36	173.280*		
6.	Teaching us in our school with Volleyball court / kits boosts my cognitive abilities in physical and health education	246	54	122.880*		

$P < 0.05$; * = Significant

Table 2 shows that χ^2 -cal = 167.253, 5.333, 164.280, 77.013, 173.280 and 122.880 for items No 1, 2, 3, 4, 5 and 6 respectively is greater than χ^2 -tab = 3.84 showing that at $p < 0.05$ and $df=1$ (i.e. χ^2 -cal > χ^2 -

tab) in all cases. Therefore, the result is significant; this implies that there is significant impact of the use of instructional materials by the teachers on the learning abilities of students in physical and health education.

Discussion

The finding of this study revealed there is a significant impact of the availability instructional materials on the learning abilities of students in physical and health education. The respondents agree that availability of instructional material affect the learning abilities of students in physical and health education. This finding is in line with the findings of Abdu-Raheem (2011) that non availability and inadequacy of instructional materials are major causes of ineffectiveness of the school system and poor performance of students in schools. The finding is also in line with findings of Onyeozu (2007) that instructional materials are resources materials which facilitate teaching and learning to improve students' performance. This finding is also in consonance with those of Ikerionwu (2000), Adeola (2008) and Isola, (2001) who concluded that material resources have a significant effect on student's achievement in each of the subjects conducted by the researchers.

The study further revealed that that the use of instructional material by the teachers will have significant impact on the learning abilities of students in physical and health education. This finding is in line with the findings of Olumorin, Yusuf, Ajidagba & Jekayinfa (2010) observed that instructional materials help teachers to teach conveniently and the learners to learn easily without any problem. Also, Kochhar (2012) supported that instructional materials are very significant learning and teaching tools.

Conclusion

Based on the findings of this study, it was concluded that availability and use of instructional materials are instrumental to effective teaching and learning of physical and health education students and teachers in secondary schools. Moreover, factors such as; inadequate instructional materials and high cost of instructional materials hinder the effective use of instructional materials.

Recommendations

Based on the findings of this study, it was recommended that:

1. Instructional materials should be made available at all times in the schools for teachers to make use of.
2. School authority should encourage the teachers to make use of the instructional materials.
3. The use of instructional materials should be made compulsory in the educational curriculum.
4. Competent and qualified personnel should train teachers on the latest use of instructional materials in teaching physical and health education.
5. Federal government should assist both private and public secondary schools with relevant instructional materials for teaching physical and health education subjects.

References

1. Abdu-Raheem, B. O. (2011). Availability, adequacy and utilization of social studies instructional materials in Ekiti State secondary schools. *Journal of Current Discourse and Research*. 3, 242-255.
2. Abdu-Raheem, B. O. (2014). Improvisation of instructional materials for teaching and learning in secondary schools as predictor of high academic standard. *Nigerian Journal of Social Studies*. XVII (1), 131-143.
3. Abdu-Raheem, B.O., & Oluwagbohunmi, M.F. (2015).Pre-service teachers' problems of improvisation of instructional materials in social studies in Ekiti State University. *Journal of Education and Practice*. 6 (3), 160-163.
4. Abiodun-Oyebanji, O., &Adu, E.T. (2007).Principals' performance in instructional supervision in the use of resources in senior secondary schools in Ekiti State. *Journal of Educational Focus*. 1 (1), 8-14.
5. Abolade, A.O. (2009). Basic criteria for selecting and using learning and instructional materials. In I.O. Abimbola & A.O. Abolade (Eds.), *Fundamental principles and practice of instruction*, Department of Science Education, Ilorin. pp 497-504.
6. Adekola, G. (2008). *Science Teaching in Nigeria*, Ilorin. Atoto Press.
7. Afolabi, S.S., & Adeleke, J.O. (2010). Assessment of resources and instructional materials status in the teaching of mathematics in south western Nigeria. *European Journal of Scientific Research*. 43 (1), 406-410.
8. Agina-Obu, T.N. (2005). The relevance of instructional materials in teaching and learning. In I.Robert-Okah& K.C.Uzoeshi (Eds.), *Theories and practice of teaching*, Port Harcourt: Harey publication.
9. Ahmed, T.M. (2003). Education and national development in Nigeria. *Journal of Studies in Education*. 10, 35-46.
10. Ajayi, I.A., & Ayodele, J.B. (2001). *An introduction to educational planning: Administration and supervision*. Ado-Ekiti: Yemi Prints Publishing Services.
11. Akinleye, G.A. (2010). Enhancing the quality of life in this complicated but dynamic world.25th Inaugural lecture, University of Ado-Ekiti, April 6.

12. Ankomah, Y.A & Kwarteng, J.T. (2010). Concerns of accounting teachers about the implementation of the 2007 Education Reform. *International Journal for Educational Leadership*. 2(2), 1-11
13. Ekpo, O. E. (2004). Instructional strategies and the challenges of implementing school curriculum in Nigeria, Lead paper presented at 17th Annual Conference of the Curriculum Organisation of Nigeria (CON) held at University of Uyo, Uyo, Akwa Ibom State, 14th – 17th September.
14. Enaigbe, A. P. (2009). Strategies for improving supervisory skills for effective primary education in Nigeria. *Edo Journal of Counselling*, 2 (2), 235-244.
15. Eniayewu, J. (2005). Effect of instructional materials on teaching of economics in secondary schools in Akoko North-East Local Government Area of Ondo State. *Ikere Journal of Education*, 7, 117-120
16. Esu, A.E.O., Erukoha, O.I.T., & Umorem, G. U. (2004). Curriculum development in Nigeria for colleges and universities. Owerri: Whyte and Whyte Publishers.
17. Fadeyiye, J.O. (2005). A social studies textbook for colleges and universities. Ibadan: Akin-Johnson Press and Publishers.
18. Ibeneme, O.T. (2000). Provision and utilization of instructional equipment for teaching and learning science and technology. *Issues in Educational Journal*, 1, 139-144.
19. Ikerionwu, J.C. (2000). Importance of aids and resources in classroom teaching. In A.M. Oyeneyin (Ed.), *Perspective of classroom teaching*. Abuja: Martmonic Investment Ltd.
20. Isola, O.M. (2010). Effect of standardized and improvised instructional materials on students academic Achievement in secondary school physics. Unpublished M. Ed. project, University of Ibadan, Ibadan.
21. Jekayinfa, A.A. (2012). *Fundamentals of instructional methods*. Ilorin, Kwara State, Olives Production Ltd.
22. Kochhar, S. K. (2012). *The teaching of social studies*. New Delhi, India. Sterling Publishers Private Limited.
23. Obanya, P. (2004). *The dynamics of secondary education: A synthesis of studies in four states of the federation* Washington D.C: The World Bank. Ofuani, F.N. (2014). Learning environment for literacy development. *Journal of the Reading Association of Nigeria (RAN)*, 15 (2), 301-307.
24. Ogbondah, L. (2008). An appraisal of instructional materials used to educate migrant fishermen's children in Rivers State, Nigeria. *International Journal of Scientific Research in Education*, 1(1), 13-25.
25. Olumorin, C. O., Yusuf, A., Ajidagba, U. A., & Jekayinfa, A. A. (2010). Development of Instructional materials from local resources for art-based courses. *Asian Journal of Information Technology*, 9 (2), 107-110.