

Community Based Resources as Educational Inputs in the Teaching and Learning of Agricultural Science in Public Secondary Schools in Osun State

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ABSTRACT

Educational inputs such as community-based resources are important in the teaching and learning processes because they facilitate the learning of abstract concepts and ideas, keep the learners active and busy thus increasing their participation in the lesson. However, students offering Agricultural Science tends to perform poorly in their academic pursuit in terminal examination not because they do not have the mental ability to do well but because their teachers fail to use effective community-based learning resources to help them build a sense of connection that challenges them to develop intellectual and academic skills. To this end the study examined community-based resources that are available and used as well as determined whether the use of community-based resources for teaching Agricultural Science will improve the academic performance of students in selected public secondary schools in Osun State. The study adopted a descriptive survey research design. The population of the study consisted of 37,740 teachers and students in the 79 public secondary schools in Osun Central Senatorial Districts. The sample consisted of 320 respondents which included 20 high school teachers and 300 high school students selected through multi-stage sampling procedure. One self-designed instrument titled "Community-Based Resources Questionnaire (CBR-Q)" was used for the study. Descriptive statistics of simple percentage and frequency count were used to analyse the data pertaining to the research questions. The study concluded that, community-based resources are available (market places, resources persons, banks and farms) but were not in used for teaching Agricultural Science in selected secondary schools in Osun State.

Keywords: Educational inputs, Integration, Utilization, Community, Community-based resources, Agricultural science, Public secondary schools.

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Highlights of this paper

- The study examined community-based resources that are available and used as well as determined whether the use of community-based resources for teaching Agricultural Science will improve the academic performance of students in selected public secondary schools in Osun State.
- The study adopted a descriptive survey research design. The population of the study consisted of teachers and students in public secondary schools in Osun Central Senatorial Districts. The sample consisted of 320 respondents which included 20 high school teachers and 300 high school students selected through multi-stage sampling procedure. One self-designed instrument titled “Community-Based Resources Questionnaire(CBR-Q)” was used for the study.
- The study concluded that, community-based resources are available (market places, resources persons, banks and farms) but were not in used for teaching Agricultural Science in selected secondary schools in Osun State.

1. INTRODUCTION

As often said, the level of the teacher’s education determines the height of the nation’s development. Therefore, there is a great demand for highly creative and innovative teachers in Nigeria to help lead the students onto the path of meaningful learning where they are equipped with the right norms, values, morals, attitudes, as well as acquiring worthwhile knowledge for the betterment of their future. Schools experience problems in achieving these education goals because of the static nature of the curriculum; changing policy statements, the nature and demand of the different teaching subjects as learners are taught using the methods of instruction that is convenient for them (Ajadi, 2020).

Therefore, in order to ensure effectiveness and efficiency in learning, educational inputs in form of community-based resources are important in the teaching and learning processes because they facilitate the learning of abstract concepts and ideas, keep the learners busy and active thus increasing their participation in the lesson. These resources also save teachers energy from engaging in too much talking due to efforts in making illustration of concepts to be clearer and better to students. It also helps to broaden students’ knowledge by increasing their level of understanding which invariably stimulate and motivate learners.

The community-based resources can be regarded as all living and non-living things considered being of educational values found in the community of the school which could be the immediate environment of the school, the host town, the state or the entire country. In fact, it could be regarded as any part of the community where the school could derive useful things for use in the teaching and learning process (Ekpo, 2010). In general, educational resources in the community from which the school could derive maximum benefits could include people, places, activities and resources available for public enlightenment and enjoyment.

In order to use community-based educational resources the teacher and students need some information about the surrounding people, places of interest, area of service or study and activities to enjoy. Hence, teachers and learners need to know about some examples of community-based resources that could be used in education. For instance, government service units’ (hospitals, fire stations, post office and utilities such as water corporations, electrical distribution company office), industrial and business organisations (textiles, banks, factories and companies), transportation facilities (air-ports, railway station, motor parks and seaports), special places (mountains, waterfalls, lakes and rivers), individuals in the community (veterinary doctors, successful businessmen, lawyers among others).

Educational inputs such as community-based resources according to Ishola (2010) are objects or devices which the teacher uses to make lesson clearer to the learner. They are also described as concrete or physical objects which provide sound, visual or both to the sense organs during teaching. It is worrisome that some schools in Osun state are yet to imbibe the culture of the application of community-based resources principles to the teaching of science

and social science related subjects in the secondary schools. Secondary school education in Nigeria is geared toward promoting the full development of the individual morally, socially and intellectually. Its contribution to the well being of the society is another important objective of secondary school education. The curriculum of secondary school as stated in the national development plan (NPE, 2004) is designed to meet the desired objectives of secondary education. Some of the aims are broadly stated as follows; preparations of students for useful living in the society and preparations of students for higher education (Akinola & Akingbade, 2020; Daramola, 2016; Oyewale, Ajadi, & Fasanmi, 2016). To achieve the above, the knowledge of Agricultural Science as pre-vocational subject at the primary and junior secondary school level and as a vocational subject in the senior secondary level are seen to prepare students to contribute positively to the rapid economic development of the nation and empower students to spend wisely so that resources at their disposal can be used to meet their satisfaction. As Agricultural Science acquired the status of a pre-vocational elective and vocational elective respectively it enables both the leaders and citizens to understand the basic subjects concepts, and principles as well as to understand, appreciate and seek to improve the socio-economic situation for their personal gains (Emmanuel, 2018; Federal Republic of Nigeria, 2013; Izuchukwu, 2011). In spite of these opportunities, there are some practical problems facing the teaching and learning of Agricultural Science in public secondary schools in Osun State. One of such problems is that teaching and learning of Agricultural Science most of the time takes place in the classroom; there is need for teachers to connect teaching with outside the school community (Ajibola, 2018). A related problem is the teachers' use of the talk and chalk method which over the years has been found to be less effective for teaching some topics in Agriculture Science, hence, the issue of field trip is essential.

There is the need to take students outside of the classroom in such a way that students could go on field trips to important places to bridge the gap between theory and practical. Teachers in Osun state do not seem to make use of this method and this is also affecting the effective teaching and learning of Agricultural Science in public secondary schools. It is felt that the services of resource persons like successful farmers, achieved business men and women dealing in agricultural goods and services, manufacturers of agricultural products, bankers in the agricpreneur-section of the banking industries among others could be employed to talk to students directly on their area of specialization thereby strengthening teaching and learning of Agricultural Science but seems teachers hardly use this medium in Osun State secondary schools.

A report of the EACME (2014) in Osun State pointed out that students offering Agricultural Science and other subjects perform poorly in their academic not because they do not have the mental ability to do well but because their teachers fail to use effective method of teaching aside the common lecture method. Just as poor performance in Agricultural Science is not attractive to education stakeholders; this could be attributed to poorly used method in the teaching of Agricultural Science aside the general believe of poor study habit which resulted to inadequate preparation for internal and external examination on the part of the students.

The researcher recent visit to some schools have shown that student's attitude to learning Agricultural Science also determines the degree to which they pass Agricultural Science in examinations. Lack of commitment and interest in the subject by students is another serious issue affecting effective teaching and learning. Teachers occupy a paramount position in the teaching-learning situation, they need to be committed and dedicated to the teaching of Agricultural Science. Students' poor attitude and interest has effect on school work and learning in general because a positive attitude about the teacher and the subject may lead to success.

Arising from the above identified challenges of teaching Agricultural Science, it is felt that community-based learning resources can help students build a sense of connection to their communities. At the same time, challenges them to develop a range of intellectual and academic skills in order to understand and take action on the issues they

encounter in everyday life, by intentionally linking academic standards to the real world of their communities. There exists a number of community resources that can enhance the teaching and learning of Agricultural Science some of these include, materials in the community that can be borrowed or purchased, visit to nearby commercial farms, agricultural industries and related factories, banks (such as BOA-Bank of Agriculture and BOI-Bank of Industry), seaports or rail stations where export and import of agricultural produce take place, veterinary hospitals, market places where agricultural products are been sold, visit to or invitation of relevant people in the community as resource persons, field trip and excursion to functional farm establishment (Soetan et al., 2020; Soetan, Olanrewaju, Onoja, Abdulrahman, & Onoja, 2021). The research therefore intends to assess the availability and utilization of community-based resources and its effectiveness in the teaching and learning of Agricultural Science in selected public secondary schools in Osun State.

1.1. Statement of the Problem

The researcher's recent visits to some schools have shown that the teachers still seek ways to utilize the limited resources in the local environment to solve problems of teaching and learning that could provide quality education. The use of educational inputs such as community-based resources is supposed to help student develop positive attitude towards their studies and influence their academic performance in Agricultural Science and other subjects. Unfortunately the use of community-based resources is hardly utilized. The extent to which teachers make use of the available resources that are community based and level of its integration remains unknown, hence the study.

1.2. Research Questions

The following research questions were generated to guide the study:

1. Are community-based resources available and used for teaching Agricultural Science in selected public secondary schools in Osun State?
2. Will the use of community-based resources improve the academic performance of students in Agricultural Science in selected public secondary schools in Osun State?

2. LITERATURE REVIEW

Many educators and researchers have reported the importance of community-based resources in teaching. Research reports have shown that availability of community-based resources is a vital determinant of educational outcomes. For example, Nwabuike (2017) and Momoh (2010) revealed that the level of teachers' accessibility to community-based resources was high and that community-based resources have a significant effect on student's academic achievement.

Also, Oyeniyi (2010) maintained that community-based resources have been positively linked with educational efficiency, students' academic performance and their capabilities when they leave school. He observed that students learn best if they are given the opportunity to see and to make observations of what they are taught. He is of the opinion that good instructional resources might be a substitute for real life objects in the classroom as against the use of exploratory methods. According to Umunadi (2011) when community-based resources and resources are lacking or are inadequate education is compromised and this inevitably is reflected in low academic achievement, high dropout rates, problem behaviours, poor teacher motivation and unmet educational goals.

Kabugi (2013) found that inadequacy of community-based resources such as school farms, agricultural tools and agriculture classrooms posed challenges to teaching and learning of agriculture. Some topics such as

agriculture economic, farm power and machineries seemed very difficult to the learners. This was further supported by Muchena (2013) who also found that inadequacy of teaching and learning resources in secondary schools in poses a challenge to teaching and learning of agriculture.

Seraphine, Jacob, Ochieng, and Joash (2018) and Soetan et al. (2021) found that that when students are involved in the field trip experience they tend to benefit at a higher skills level. This approach provides a way for students to feel more connected to their communities through tours of local business enterprises and national facilities. Corroborating this, Cheplogoi (2011) informed that teachers need to be aware that collaboration between students and others outside the school community is essential for effective learning and for this reason guest speakers can be effective pedagogical tools in the classroom.

This submission was supported by Konyango and Asienyo (2015) and Amadi (2011) who found that guest-speaker events enrich the education of students by providing a platform by means of which they are able to obtain first-hand knowledge about the working environment of practicing personnel and are able to gain authentic career through specific learning situations that provide a powerful basis for deeper learning about current concepts, perspectives and practices.

Owino, Yungungu, Ahmed, and Ogolla (2015) found that the availability of teaching and learning resources enhances the effectiveness of schools as these are the basic things that can bring about good academic performance in students. Also, according to Cheplogoi (2011), the level of availability of agricultural science resources in the school has significant influence on students' attitudes towards the subject. Sulaiman (2013) found that students are more likely to retain and transfer knowledge when given opportunities to apply what they are learning to real world issues and to assess their performance in ways that suit their personal learning styles. Sulaiman (2013) reported that the serious problem facing teaching is lack of modern relevant instructional materials. The importance of modern technologies in teaching subject cannot be under estimated. The application of relevant and modern technologies may help to solve some of the identified problems faced in the effective teaching and learning of the Agricultural Science subject.

However, Bello, Adeyanju, and Fakorede (2018) concluded that the amount to which instructors use instructional materials for teaching is determined by their level of teaching experience. Kidane and Worth (2013) found that the teaching and learning of Agricultural Science was greatly impeded by lack of fields for practical experience, laboratories, and libraries to facilitate learning. According to the above scholar, this can be corrected if relevant instructional resources are used. The implication of all this is that Agricultural Science as a subject cannot be effectively taught if teacher are not skilled in the art and craft of designing, development and production of educational resources.

Nevertheless, Murphy, Sharma, and Moon (2012) and Ajibola (2018) reported that the use of community resources provides a shared memory for the class. For example, going on a field trip is only part of the total experience. As students and teachers talk about the trip and think about it after it is over, they are building shared understanding. The event becomes part of the common knowledge of the class and can be referred to in subsequent lessons. What was learned is, thus, reinforced and extended in later discussions as the teacher refers to field observations.

3. METHODOLOGY

The research design adopted a descriptive survey type. The population of the study consisted of 37,740 teachers and students in the 79 public secondary schools in Osun Central Senatorial Districts. That is, it comprised 1,194 teachers and 36,546 students of the public secondary schools in Osun Central Senatorial District (Osun State

Ministry of Education, 2021). The sample consisted of 320 respondents which included 20 public secondary school teachers and 300 students selected through multi-stage sampling procedure. Purposive sampling technique was used to select four Local Government Areas (LGAs) out of the ten LGAs in the District. Simple random sampling technique was equally used to select five public secondary schools from each of the selected LGAs, making a total of 20 secondary schools from the existing 79 public secondary schools in the District. From each of the selected public secondary schools, one Agricultural Science teacher was purposively selected, while 15 students were also selected using simple random sampling technique making a total of 16 respondents from each school. One self-designed instrument was used for the study. The instrument was a questionnaire, titled "Community-Based Resources Questionnaire (CBR-Q)" which was used to elicit information from teachers and students. The CBR-Q has two sections: section A elicited information on the demographic variables of the respondent while section B elicited information on the availability, usage and influence of community resources on learning of Agricultural Science subject. The instrument developed by the researcher was validated using both face and content validity procedures. The questionnaire was given to senior colleagues and other experts in Department of Educational Management for their inputs, comments and suggestions. The researcher used written and oral comments of these senior colleagues and changed some questions of the items on the instrument. Some poorly worded and senseless questions were discarded and some were modified. In the questions developed to assess availability and usability of community resources on learning of Agricultural Science subject, the items were modified and limited to six. On the questions developed to assess the influence of community resources on learning of Agricultural Science subject, 2nd and 4th items were discarded and replaced by another question. Therefore, appropriate and relevant suggestions were provided to improve the quality of the instrument as modifications were made used to ensure the suitability of the instrument for the study. The reliability of the research instrument was done through test-retest measure of reliability method at two weeks interval. The instrument was administered on 20 respondents to include 14 students who were randomly selected and 6 teachers who were purposively selected within the population but outside the intended sample area on two different occasions within the interval of two weeks. In addition, the data collected from test-re-test was subjected to reliability test using Pearson product moment correlation (Ppmc) to provide the internal consistency reliability estimate of the instrument. The reliability coefficient obtained for the instrument CBR-Q was 0.80. The value obtained was greater than 0.05, indicating that the instrument was reliable, consistent and good enough to obtain information for the study. The researcher administered the instrument personally on the respondents with the help of two research assistants. Necessary explanations were given to the respondents on how to fill out the questionnaires. This assisted the respondents in filling the questionnaires even in the absence of the researcher. Not all the questionnaires were returned but the return rate was 90%. That is, out of the total 300 copies of questionnaires that were administered on the respondents, only 270 were returned and found useful. Data analysis focused on two research questions. Descriptive statistics were used to analyse the data pertaining to Research Questions 1 and 2. The responses were coded numerically and data were analysed using simple percentage and frequency count.

4. RESULTS AND DISCUSSION

Research Question 1: Are community resources available and used for teaching Agricultural Science in selected public secondary schools in Osun State?

The results in [Table 1](#) shows the community resources that are available for teaching Agricultural Science in selected secondary schools in Osun State. The respondents informed that market places 88 (32.6%) was available in students locality, this closely followed by resource person(s) with 63 (23.3%) respondents. Also, 44 (16.3%) of the

respondents informed that banks were the third most common and available community-based resources that can be found in the locality of students, while 37 (13.7%) of the respondents informed that farm was also on the list of most common and available community-based resources that can be found in the locality of students. Likewise, 23 (8.5%) of the respondents informed that industries/factories were also available while only 15 (5.6%) of the respondents that saw hospitals as the least available community-based resources in student locality.

Table 1. Available community-based resources in Osun State Secondary Schools.

S/N	CBR	Frequency (F)	Percentage (%)
1	Market places	88	32.6
2	Banks (BOI and BOA)	44	16.3
3	Industries/Factories	23	8.5
4	Farms	37	13.7
5	Resources person (s)	63	23.3
6	Hospitals	15	5.6
	Total	270	100

Table 2. Usage of community-based resources in Osun State Secondary Schools.

S/N	Usage of Community-based Resources	Agreed F (%)	Disagreed F (%)	Total F (%)
1	Schools takes students outside the classroom to places like Markets, Banks, Factories etc when teaching Agricultural Science subject.	32 (12.0)	238 (88.0)	270 (100)
2	Schools organize field-trip to farms for students on regular basis to assist the teaching of Agricultural Science subject.	95 (35.2)	175 (64.8)	270 (100)
3	Schools bring in experts from different Agricultural Science fields to give motivational talk to students in school.	218 (80.7)	52 (19.3)	270 (100)
	Total	115 (42.6)	155 (57.4)	270 (100)

The results in Table 2 shows the community resources that are used in teaching Agricultural Science in selected secondary schools in Osun State. From the above table, it can be observed that 238 (88.0%) of the total respondents disagreed that schools takes students outside the classroom to places like Markets, Banks Factories etc when teaching Agricultural Science. Also, 175 (64/8%) of the total respondents disagreed that school organize field-trip to farms for students on regular basis to assist their teaching of Agricultural Science subject. However, 218 (80.7%) of the respondents agreed that the school bring in experts from different Agricultural Science field of studies to give motivational talk to students in school.

Conclusively, community resources are available (market places, resources persons, banks and farms) but were not in used for teaching Agricultural Science in selected secondary schools in Osun State.

Research Question 2: Will the use of community-based resources improve the performance of Agricultural Science students in selected public secondary schools in Osun State?

From the Table 3, it can be observed that 212 (78.5%) of the respondents agreed that the use of community-based resources ease students learning and comprehension in Agricultural Science. Also, majority of the respondents agreed that 232 (85.9%) the use of Agricultural Science experts as guest speaker motivates students' learning of Agricultural Science. Likewise, 181 (67.0%) of the respondents agreed that the use of community-based resources is to enrich the students knowledge in Agricultural Science subject. Table 3 further revealed that, 210 (77.8%) of the respondents agreed that students are taken outside the school on field trip to improve students' creativity and innovations in Agricultural Science and lastly, 210 (77.8%) of the respondents agreed that the use of resource person for teaching aid students' learning of Agricultural Science.

Table 3. Community-based resources and academic performance of students in agricultural science in Osun State Secondary Schools.

S/N	Usage of Community-based Resources	Agreed F (%)	Disagreed F (%)	Total F (%)
1	The use of community-based resources ease students learning and comprehension in Agricultural Science.	212 (78.5%)	58 (21.5%)	270 (100)
2	The use of Agricultural Science experts as guest speaker motivates students learning of Agricultural Science.	232 (85.9%)	38 (14.1%)	270 (100)
3	The use of community-based resources enriches the students knowledge of Agricultural Science.	181 (67.0%)	89 (33.0%)	270 (100)
4	Taking students outside the school on field trip improve students' creativity and innovations in Agricultural Science.	210 (77.8%)	60 (22.2%)	270 (100)
5	The use of resource person for teaching aid students' learning of Agricultural Science.	210 (77.8%)	60 (22.2%)	270 (100)
	Total	209 (77.4)	61 (22.6)	270 (100)

Conclusively, on the average 209 (77.4%) the use of community-based resources will improve the performance of Agricultural Science students in selected secondary schools in Osun State.

5. DISCUSSION OF FINDINGS

Findings to research question one showed that the schools are blessed with numerous community-based resources that can positively affect teaching and learning of Agricultural Science. This findings corroborate the findings of Seraphine et al. (2018); and Soetan et al. (2021) who found that community is a rich reservoir of instructional materials for the teacher. This also aligned with the findings of Owino et al. (2015) who found that teaching and learning could be enhanced to a great extent by using instructional resources based on local contexts, because such resources would be more authentic and more relevant to students' needs. The results showed the usage of community-based resources in the teaching of Agricultural Science in selected public secondary schools in Osun State. The finding is in line with Amadi (2011); Konyango and Asienyo (2015) who found that guest-speaker events enrich the education of students by providing a platform by which they are able to obtain first-hand knowledge about the working environment of practicing business personnel, and students are able to gain authentic career specific learning situations that provide a powerful basis for deeper learning about current concepts, perspectives and practices. The result of the findings of research question two showed the influence of community-based resources on academic performance of students in Agricultural Science in selected public secondary schools in Osun State. The finding is in agreement with Cheplogoi (2011); Murphy et al. (2012) and Ajibola (2018) who found that the use of relevant community-based instructional resources is invaluable since it engages students, aids their retention of knowledge, motivates interest in the subject matter and helps to illustrate the relevance of many concepts taught.

6. CONCLUSION

This study concluded that, community resources are available (market places, resources persons, banks and farms) but were not in used for teaching Agricultural Science. However, the study also concluded that the use of community-based resources will improve the performance of Agricultural Science students in selected public secondary schools in Osun State.

7. RECOMMENDATIONS

It was observed that teachers are not optimally using resources that are locally available to enhance teaching and student learning. It is common knowledge that most commercially-produced instructional materials for

teaching are usually scarce to obtain and if available, they are usually expensive to purchase. It is for these reasons that teachers are urged to explore the environments around their schools (urban, suburban or rural) for community-based instructional materials instead of relying on schools to provide instructional materials.

Also, teachers training institutions like Colleges, National teachers institute and Nigerian Universities should give training teachers appropriate technical-know-how in the use of community-based resources for teaching so as to cater for inadequacies observed in the area of poor method of teaching and attitude of teachers towards the use of community-based resources.

REFERENCES

- Ajadi, O. T. (2020). Teachers' characteristics and instructional quality in public secondary schools in Nigeria. *African Journal of Inter/Multidisciplinary Studies*, 2(1), 13-24. Available at: <https://doi.org/10.51415/ajims.v2i1.822>.
- Ajibola, A. A. (2018). Availability, adequacy and utilisation of resources for teaching Agricultural Science at secondary schools in Osogbo, Nigeria. Retrieved from: <https://www.ijasseonline.com/wp-content/uploads/2019/05/Availability-Adequacy-and-Utilisation-of-Resources-for-Teaching-Agricultural.pdf>.
- Akinola, O. B., & Akingbade, M. O. (2020). Comparative study of effectiveness factors in secondary schools in Osun state. *International Research Review*, 6(1), 80-93.
- Amadi, U. P. N. (2011). *Availability and utilization of instructional resources in teaching and learning of agriculture in primary schools in Anambra State of Nigeria*. Paper presented at the Lead at Inaugural Workshop/Orientation for Primary School Teachers Held at Awka 12-16 July.
- Bello, O. F., Adeyanju, L. O., & Fakorede, S. O. (2018). Colleges of education lecturers attitude towards the use of information and communication technology in Nigeria. *MOJES: Malaysian Online Journal of Educational Sciences*, 5(4), 1-12.
- Cheplogoi, S. (2011). *Attitudes towards Agriculture in secondary schools: The case of teachers and students of Baringo North District, Kenya*. Unpublished M.Sc. Thesis, Moi University Kenya.
- Daramola, F. O. (2016). Basic concept in educational technology. In M. O. Yusuf, & S. A. Onasanya, (Eds) Critical Issue in educational technology (pp. 1-8). Ilorin: Department of Educational Technology, University of Ilorin.
- EACME. (2014). *Annual assessment report on state of education in Osun State*. Oshogbo, Osun State: Document of Ministry of Education.
- Ekpo, C. M. (2010). Strategies for managing school curriculum and resources for National Building. *Nigerian Journal of Curriculum and Instruction*, 10(1), 51-56.
- Emmanuel, A. (2018). *Educational practice*. Lagos: Longman Challenge Press.
- Federal Republic of Nigeria. (2013). *National curriculum for agricultural science*: Lagos, Nigeria: Federal Republic of Nigeria.
- Ishola, O. M. (2010). *Effects of standardized and improvised instructional materials students' academic achievements in secondary school physics*. Unpublished M. Ed. Thesis, University of Ibadan, Ibadan.
- Izuchukwu, O.-O. (2011). Analysis of the contribution of agricultural sector on the Nigerian economic development. *World Review of Business Research*, 1(1), 191-200.
- Kabugi, S. W. (2013). *Challenges to teaching and learning of agriculture in secondary schools in Kakuyuni Division, Kangundo District, Machakos County, Kenya*. Unpublished M.Ed. Thesis, Kenyatta University, Kenya.
- Kidane, T. T., & Worth, S. H. (2013). Attitude of students in the formal educational sector towards Agricultural education and training in South Africa. *Journal of Human Ecology*, 44(1), 53-63.
- Konyango, J. J. J. O., & Asienyo, B. O. (2015). Secondary school agriculture: participatory approaches to the implementation of secondary school agriculture curriculum in Kenya between 1959 and 2012. *International Journal of Science and Research Innovative Technology*, 2(1), 1-11.

- Momoh, S. O. (2010). Instructional strategies and students performance in secondary school science. *Journal of Instructional Psychology*, 35(2), 204-211.
- Muchena, P. K. (2013). *Factors influencing students enrolment in agriculture subject in public secondary schools in Kiambu East District, Kiambu County, Kenya*. Unpublished M.Ed Thesis, University of Nairobi, Kenya.
- Murphy, R., Sharma, N., & Moon, J. (2012). Empowering students to engage with responsible business thinking and practices. *Business and Professional Ethics Journal*, 31(2), 313-330. Available at: <https://doi.org/10.5840/bpej201231215>.
- NPE. (2004). *Federal republic of Nigeria*. Lagos: NERDC Press.
- Nwabuike, R. N. (2017). *A study of the appraisal of available community resources for teaching and learning agricultural science in secondary schools in old anambra local government area of Anambra State*. Unpublished M. Ed. Thesis, Department of Vocational Teacher Education, University of Nigeria, Nsukka.
- Osun State Ministry of Education. (2021). *Department of statistics, teacher establishment and pension office (TEPO)*. Osogbo: Osun Central Education District Office, Ministry of Education.
- Owino, O. A., Yungungu, A. M., Ahmed, O., & Ogolla, B. O. (2015). The relationship between availability of teaching/learning resource and performance in KCSE Biology in selected secondary schools in Nyakoch Subcounty, Kisumu County, Kenya. *International Journal of Contemporary Applied Science*, 2(7), 153-168.
- Oyeniyi, O. (2010). Analysis of the educational facilities in southern universities in Nigeria. *Academic Leadership: The Online Journal*, 8(2), 123-135.
- Oyewale, B. Y., Ajadi, O. K., & Fasanmi, S. A. (2016). Perceived effectiveness of community participation in Osun State public secondary schools. *Ife Journal of Behavioural Research*, 8(1), 45-53.
- Seraphine, S. A., Jacob, J. J., Ochieng, K., & Joash, K. K. (2018). Influence of instructional resources in learning Agriculture in secondary school on employment creation in Vihiga County, Kenya. *International Journal of Educational Administration and Policy Studies*, 10(1), 1-9. Available at: <https://doi.org/10.5897/ijeaps2017.0535>.
- Soetan, A. K., Onojah, A. O., Alli, S. O., Ayodeji, A. G., Aderogba, A. J., & Olabo, O. O. (2020). Secondary school teachers' utilization of indigenous instructional resources in teaching basic technology in Kwara State. *Epiphany*, 1(1), 63-74.
- Soetan, A. K., Olanrewaju, O. O., Onoja, A. O., Abdulrahman, M. R., & Onoja, A. A. (2021). Assessment of instructional resources for teaching agricultural science in secondary schools in Oyo State. *The Online Journal of Distance Education and e-Learning*, 9(3), 362-372.
- Sulaiman, K. O. (2013). The use of instructional resources for effective learning of islamic studies. *Ekiti State University Religious Studies Journal*, 1(1), 30-39.
- Umunadi, E. K. (2011). *Provision of equipment and facilities in Vocational and technical education for improving carrying capacity of Nigeria's tertiary institution*. Paper presented at the In 1st International Technology, Education and Environment Conference.

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