



CENTRAL ASIAN JOURNAL OF THEORETICAL AND APPLIED SCIENCES

Volume: 03 Issue: 01 | Jan 2022 ISSN: 2660-5317

Funding of Science Programme in Public Secondary School in Federal Capital Territory, Abuja, Nigeria

Olamoyegun, Stephanie Olabisi

oduyemiolabisi09@gmail.com

Olatunde-Aiyedun, T. G.

aiyedunt@gmail.com

Ogunode, N. J.

ogunodecob@gmail.com

Received 29th Nov 2021, Accepted 29th Dec 2021, Online 29th Jan 2022

Abstract: *The study investigated the perception of teacher on the impact of adequate funding for the implementation of science programme in public secondary schools in FCT, Nigeria. The study used descriptive survey research design. The population of the study comprised of all science teachers in FCT, Nigeria. The sample size of the study was made up of 180 science teachers which was selected from 30 public secondary schools across the six area councils in the territory. Simple random technique was employed to select the schools for the study. A self-structured questionnaire titled: Adequate Funding of Science Programme Questionnaire (AFSPQ) was used. The instrument was subjected to content and face validity by experts in the Department of educational Foundations, University of Abuja. Lawshe Content Validity Index was used to calculate the scores and CRV of 0.86 was obtained, which indicated that the instrument was appropriate and suitable for the research. Mean and standard deviation were used to analysis the data collected to answer the research questions. The result of findings noted that adequate funding of science programme would lead to adequate employment of science teachers, infrastructural facilities, provision of adequate instructional materials, effective capacity development programme for science teacher and improved welfare packages for science teachers motivation. Based on this findings of the study, it was recommended that government should increase the funding of Science Programme in Federal Capital Territory, Abuja, which would help to facilitate the development of science programme in Federal Capital Territory, Abuja.*

KeyWords: *Funding, Science Programme, Secondary schools*

Introduction

Science subjects are among the subjects offered in the Nigerian public secondary schools. The science subjects include Mathematics, Physics, Chemistry, Biology, Further Mathematics, Technology, Technical Drawing, and Agriculture. Science programs in Nigerian schools are given maximum attention due to

their significant contribution to the technological development of the country. Ogunode and Jegede (2019), and Adolphus, (2019) stated that the purposes of science education in Nigeria are generally drawn from the national goals and philosophy of education as contained in the National Policy on Education (NPE). For instance, the goals of education in Nigeria include the Development of the individual into a morally sound, patriotic, and effective citizen; ...and social abilities and competencies as equipment for the individual to live in and contribute to the development of society (FRN 2013). According to the national policy text, the goals of science education shall be to: Cultivate inquiring, knowing and rational mind for the conduct of a good life and democracy; produce scientist for national development; service studies in technology and the cause of technological development; and provide knowledge and understanding of the complexity of the physical world, the forms, and the conduct of life (Adolphus, 2019). Also, Ogunode and Jegede (2019) identified the objectives of teaching science to include the knowledge of science academic discipline; acquisition of scientific skills for societal issues through increasing interest in science literacy and societal goals (**Ojelade, Aregbesola, Ekele & Aiyedun, 2020**). The realization of the objective of science programme in the secondary schools depends on the quality and quantities of professional science teachers available to teach the various programmes at the secondary schools levels (Ogunode, Olatunde-Aiyedun & Akin-Ibidiran, 2021).

The realization of the objectives of science programme in the Nigerian public secondary schools depends on the availability of adequate human and materials resources. The human resources consists of teaching and non-teaching staff while materials resources are made up of technological resources, facilities resources and financial resources. The financial resources which connotes funds or monies is one of the critical resources in educational administration and management because is the fuel that powers the entire sectors (Ogunode, Eyiolorunse-Aiyedun & Olatunde-Aiyedun, 2021).

The public secondary school education and every other programme under it gets their funds from the government. The federal colleges gets their funding from the Federal government while the secondary schools gets their funding from the various states government. The other programme like the sciences programme drives their funding from the allocation for the secondary school education. Inadequate funding have been identified by Ogunode (2021), and Ogunode and Atiga (2021) as a major problem facing the administration of public secondary schools in Nigeria.

Ogunode and Onyekachi (2021) outlined the ten years educational budget as follows: in 2010, 2011, 2012, 2013, 2014, 2015 budget had N293 bn (7.19%), N393 bn (9.31%), N453 (9.15%), N499 (10.15%), N494 (10.54%), N434 (10.71%) and 2016, 2017, 2018, 2019 and 2020 the budget was N4.31 (7.52%), N551 (7.41%), N605.8 bn (7.04%), N620.5 bn (7.02%) and N671.07bn (6.7%). The Nigerian educational budget for ten years in each years was below the UNESCO 26% recommendation for education in developing countries.

The poor budgetary allocation for education affects the other sub-programme in the educational sectors. Science programme is one of the programme mostly affected by the poor funding. The inability of the government both at the federal and state levels to adequately funding science programme is affecting the implementation of science programme in the phases of educational system (Ogunode, Somadina, Yahaya & Olatunde-Aiyedun, 2021).

At the Secondary schools Ajemba, Ahmed, Ogunode, Olatunde-Aiyedun (2021); Omorogbe and Ewansiha, (2013) posited that shortage of funds is hindering the development of science programme at the secondary school level. At the higher education, Ogunode, & Aiyedun, (2020) acknowledged that funding is a major problem facing science education at the higher education in Nigeria (Olamoyegun, Ahmed & Ogunode, 2021; Olayiwola, 2014).

Ahmed, Emeka & Ogunode (2021) opined that inadequate funding is a major problem responsible for poor development of science education. Science education is very expensive and cost effective. The annual budgetary allocation for the primary school education is inadequate. Science programme in the primary school drives their funds from the general budget of the primary school education while Ezechi and Ogbu (2017) stated that funding science programmes and science related research has been a major problem facing technological growth and self-reliance in Nigeria. Government do not adequately fund science and science related programme and research. In addition to this, the little fund provided relapse and are embezzled by top officials in charge of its implementation. Abubakar, Ogunseye, and Ogunode (2021) opined that inadequate funding is a major problem hindering the development of science programme in Nigerian Secondary schools. Ahmed, Ezechi and Ogbu, (2017) posits that funding science programmes and science related research has been a major problem facing technological growth and self-reliance in Nigeria. Government do not adequately fund science and science related programmes and research. In addition to this, the little fund provided relapse and are embezzled by top officials in charge of its implementation (Olatunde-Aiyedun, 2021a).

Statement of the Problem

Science programmes are very potential for the realization of technological development in Nigeria.. However, science programmes are inadequately funding in Nigeria. The poor funding of the science programme is affecting the implementation of the programme in the public secondary schools in Nigeria and in FCT in particular. It is against this background that the study aimed to find out the perception of teacher on impact of adequate funding for the implementation of science programme in pubic secondary schools in FCT, Nigeria.

Purpose of the Study

The main purpose of the study is to find out the perception of teacher on impact of adequate funding for the implementation of science programme in pubic secondary schools in FCT, Nigeria. Specifically, this study sought to find out:

1. Impact of adequately funding science programme in public secondary schools;
2. Strategies to improve the funding science programme in public secondary schools.

Research Questions

The following are the questions formulated for the study:

1. What are the impact of adequately funding science programme in public secondary schools in FCT, Nigeria?
2. What are the problems militating against adequate funding science programme in public secondary schools in FCT, Nigeria?

Methodology

The main purpose of the study is to find out the perception of teacher on impact of adequate funding for the implementation of science programme in pubic secondary schools in FCT, Nigeria. The study used descriptive survey research design. The population of the study comprised of all the science teachers in FCT. The sample of the study was made up of 180 science teachers. The sample was selected from thirty public secondary schools across the six area councils in the territory. Simple random technique was employed to select the sample of the study. A self-structured questionnaire titled: Adequate Funding of Science Programme Questionnaire (AFSPQ) was used. A modified likert type four (4) point rating scale of strongly agree = 4 (SA), Agree = 3 (A), Disagree = 2 (D) and Strongly Disagree = 1 (SD) was used to

designed the research instrument. The instrument was subjected to content and face validity by experts in the Department of Educational Foundations, University of Abuja. The instrument was given to two specialists in Educational Management for evaluation. Their inputs were taken into consideration for the designing of the final copy. To ensure content validity, a pilot test was carried out by administering the instrument to 40 science teachers in Kogi state secondary school who did not participate in the study. Lawshe Content Validity Index was used to calculate the scores and CRV of 0.86 was obtained. This indicates that the validity of the instrument was okay. Mean and standard deviation were used to analyse the data collected from the study.

Data Presentation

Answers to Research Questions

Research Question One: What are the impact of adequately funding science programme in public secondary schools?

Table 1: Impact of adequately funding science programme

S/N	Statement	Mean	SD	Decision
1.	Effective implementation science programme	2.96	0.954	Agreed
2.	Leads to adequate employment of science teachers	2.98	0.929	Agreed
3.	Leads to adequate infrastructural facilities	2.94	0.955	Agreed
4.	Leads to provision of adequate instructional Materials	2.79	1.010	Agreed
5.	Leads to effective capacity development programme for science teacher	2.88	0.995	Agreed
6.	Leads to improved welfare packages for teachers motivation	2.79	.0991	Agreed
Grand Mean				2.8

Table 1 answers questions on the impact of adequately funding science programme in public secondary schools. The result collected indicates that sciences teachers agreed on the following mean scores 2.96, 2.98, 2.94, 2.79, and 2.88 to 2.79. The indicates that science teachers all agreed that adequate funding of science programme would lead to adequate employment of science teachers, infrastructural facilities, provision of adequate instructional materials, effective capacity development programme for science teacher and improved welfare packages for science teachers motivation.

Research Question Two:

What are the problems militating against adequate funding science programme in public secondary schools?

Table 1.2: Problems militating against adequate funding science programme

S/N	Statement	Mean	SD	Decision
1.	Lack of political will to implement UNESCO Recommendation of 26%	2.91	0.964	Agreed
2.	Competition from other educational programme	2.88	0.934	Agreed
3.	Corruption in the administration	2.97	0.955	Agreed
4.	Insecurity problem	2.77	0.987	Agreed
5.	Poor Private financial support	2.92	0.997	Agreed
6.	Fall in national revenue	2.88	.0981	Agreed
Grand Mean				2.7

Table 2 was used to answers questions two on the problems militating against adequate funding science programme in public secondary schools. The result collected indicates that sciences teachers agreed on the following mean scores 2.91, 2.88, 2.97, 2.77, and 2.92 to 2.88. The result shows that that all science teachers sampled agreed that problems militating against adequate funding science programme in public secondary schools include; Lack of political will to implement UNESCO recommendation of 26%, Competition from other educational programme, Corruption in the administration, insecurity problem, poor private financial support, and fall in national revenue.

Discussion of Findings

From the result of findings in table 1, adequate funding of science programme would lead to adequate employment of science teachers, infrastructural facilities, provision of adequate instructional materials, effective capacity development programme for science teacher and improved welfare packages for science teachers motivation. This result confirmed with the findings by Ogunode (2021), and Njideka, Esther and Confidence (2015) that the government should be committed in the adequate funding of secondary education through appropriate budgetary allocation for the sustenance of secondary education in the country.

The result of findings in Table 2 showed that problems militating against adequate funding science programme in public secondary schools include: Lack of political will to implement UNESCO recommendation of 26%, competition from other educational programme, corruption in the administration, insecurity problem, poor private financial support, and fall in national revenue. This result is in line with the findings of Ogunode and Onyekachi (2021), and Orji, Ogar & Aiyedun (2018) noted that the factors responsible for shortage of inadequacy of funding in educational financing includes short fall in national revenue, compete from other sector, corruption, insecurity, natural disaster and lack of political will to implement UNESCO recommendation on education (Aiyedun, Olatunde-Aiyedun & Ogunode, 2021).

Conclusion

In conclusion, inadequate funding of science programme would eradicate unemployment, and shortage of science teachers, inadequate infrastructural facilities especially in virtual teaching and learning. Adequate funding should be directed to effective ICT innovative teaching and instructional materials, and promote capacity development programme, as well as improved welfare packages for science teachers. The problems militating against adequate funding of science programme in public secondary schools such as lack of political will to implement UNESCO recommendation of 26%, competition from other educational programme, corruption in the administration, insecurity problem, poor private financial support, and fall in national revenue, should be looked into in further studies.

Recommendations

Based on this findings; the following were recommended:

1. Government should increase the funding of Science Programme in Federal Capital Territory, Abuja. This will facilitate the development of science programme in Federal Capital Territory, Abuja.
2. The government should design programme that will fight corruption in the secondary school administration in FCT. This will help to improve the development of science programme.
3. Public Schools should adopt the use of ICT innovative teaching and instructional strategies for science subjects.
4. Science teachers should update their knowledge by attending scientific workshops, seminars and conferences.

References

1. Abubakar, Z., Ogunseye, A.A. & Ogunode N.J. (2021). Administration of Science Programme in Nigerian Public Secondary Schools: Problems and way forward. *Central Asian Journal of Literature, Philosophy and Culture*, 2(2), 58-65
2. Ajemba, H.E., Ahmed, F.M., Ogunode, N.J. & Olatunde-Aiyedun, T.G. (2021). Problems facing science teachers in public secondary schools in Nigeria and way forward. *International Journal of Discoveries and Innovations in Applied Sciences*, 1(5), 118-129.
3. <http://openaccessjournals.eu/index.php/ijdias/article/view/280>
4. Aiyedun, E.A., Olatunde-Aiyedun, T.G. & Ogunode, N.J. (2021). Factors Hindering the Progress of Nigerian Universities in the Global Ranking of Universities. *International Journal of Development and Public Policy*, 1(6), 183–187.
<http://openaccessjournals.eu/index.php/ijdpp/article/view/706>
5. Ezechi, N.G. (2016). Revisiting secondary school science teachers' motivation: A positive step towards transformation of Nigerian science education for global challenges. *Journal of Resourcefulness and Distinction. JORESDis*. 13(1), 86-94.
6. Ezechi, N.G. & Ogbu, C.C. (2017). Science Education in Nigeria: Challenges and the Way Forward. *International Journal of Progressive and Alternative Education*, 4(1) 2-11
7. Federal Republic of Nigeria (2014). *National Policy on Education*. Abuja: NERDC.
8. Ogunode N. J. (2021). Administration of Public Secondary Schools in Nigeria: Problems and Suggestions. *Central Asian Journal of social sciences and history volume: 2(2)*, 90-102.

9. Ogunode, N.J. (2020). Investigation into the Challenges Facing Administration of STEM Education in Gwagwalada Universal Basic Education Junior Secondary Schools in FCT, Nigeria *International Journal of Research in STEM Education (IJRSE)*. 2(1) 59-75
10. Ogunode, N.J, Eyiolorunse-Aiyedun, C.T. & Olatunde-Aiyedun, T.G. (2021). Educational planning in Nigeria during covid-19: problems and way forward. *Academica Globe: Inderscience Research*, 2(07), 137–147. <https://doi.org/10.17605/OSF.IO/RM4SY>
11. Ogunode, N.J & Jegede, D. (2019) Challenges Facing Implementation of Science Program in FCT Secondary Schools, Abuja, Nigeria. *Electronic Research Journal of Engineering, Computer and Applied Sciences*. (1), 1-13.
12. Ogunode, N.J., Olatunde-Aiyedun, T.G. & Akin-Ibidiran, T.Y. (2021). Challenges preventing effective supervision of universal basic education programme in Kuje Area Council of FCT, Abuja, Nigeria. *Middle European Scientific Bulletin*, 16.
<https://cejss.academicjournal.io/index.php/journal/article/view/712>
13. Ogunode N. J. & Onyekachi, M.C (2021) Education Financing in Nigeria: Problems and the way forward. *International Journal of Development and Public Policy* 1(5), 162-174
14. Ogunode, N.J., Okwelogu, I.S. & Olatunde-Aiyedun, T.G. (2021). Challenges and problems of deployment of ICT facilities by public higher institutions during Covid-19 in Nigeria. *International Journal of Discoveries and Innovations in Applied Sciences*, 1(4), 30–37. Retrieved from <http://openaccessjournals.eu/index.php/ijdias/article/view/213>
15. Ogunode, N.J., Somadina, O. I. ., Yahaya, D.M. & Olatunde-Aiyedun, T.G. (2021). Deployment of ICT facilities by Post-Basic Education and Career Development (PBECD) during Covid-19 in Nigeria: Challenges and way forward. *International Journal of Discoveries and Innovations in Applied Sciences*, 1(5), 19–25. Retrieved from <http://openaccessjournals.eu/index.php/ijdias/article/view/280>
16. Ojelade, I.A., Aregbesola, B.G., Ekele, A., & Aiyedun, T.G. (2020). Effects of Audio-Visual Instructional Materials on Teaching Science Concepts in Secondary Schools in Bwari Area Council Abuja, Nigeria. *The Environmental Studies Journal (TESJ)*, 3, (2) 52 – 61.
<https://researchersjournal.org/effects-of-audio-visual-instructional-materials-on-teaching-science-concepts-in-secondary-schools-in-bwari-area-council-abuja-nigeria/>
17. Olamoyegun, S.O., Ahmed, F. M & Ogunode, N.J. (2021). Stem Programme Administration in Public Primary Schools in Federal Capital Territory, Abuja, Nigeria: Problems and Way Forward, *Central Asian Journal of Theoretical and Applied Sciences*. 2(2), 153-161
18. Olatunde-Aiyedun, T.G. (2021a). Student teachers' attitude towards teaching practice. *International Journal of Culture and Modernity*, 8, 6-17.
<http://ijcm.academicjournal.io/index.php/ijcm/article/download/59/58>
19. Olatunde-Aiyedun, T.G. (2021b). *Fundamentals of Environmental Education*. LAP LAMBERT Academic Publishing, Mauritius.
https://www.researchgate.net/publication/349573767_Fundamentals_of_Environmental_Education
20. Olatunde-Aiyedun, T.G. & Ogunode, N.J. (2021). Covid-19 and Administration of Environmental Education Students in Nigerian Tertiary Institution. *International Journal of Innovative Analyses and*

Emerging Technology, 1(4), 87–93. Retrieved from <http://openaccessjournals.eu/index.php/ijiaet/article/view/218>

21. Omorogbe, E. & Ewansiha, J.C. (2013). Challenge of Effective Science Teaching in Nigerian Secondary Schools *Academic Journal of Interdisciplinary Studies MCSER Publishing, Rome-Italy* 2(7), 181-188.
22. Olayiwola, J.O. (2014). Problems of Teaching and Learning Science in Junior Secondary Schools in Nasarawa State, Nigeria. *Journal of Education and Practice* 5(34),
24. Orji, N.O., Ogar, S.I. & Aiyedun, T.G. (2018). Influence of jigsaw-based learning strategy on Academic achievement of upper basic students' in Basic Science in Etim-Ekpo of Akwa Ibom State. *Abuja Journal of Arts and Social Science Education (AJASSE)*, 1(1)1-12.