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EDITORIAL

Dear Readers,

We are excited to announce the launch of International Journal of Contemporary Issues in Integrated Science Education (IJCIISE). This Association Integrated Science Educators' Association of Nigeria (ISEAN) play a vital role in promoting scientific advancement, supporting science education, informing science policy, recognizing science excellence and fostering community engagement. The desire to float this journal was borne out of the passion to organize a yearly conference of Integrated Science by the Integrated Science Educators' Association of Nigeria, of which selected scholarly articles will be published after a thorough review. The journal dedicated to advancing knowledge and fostering dialogue within. Our mission is to publish high-quality research, innovative ideas, and critical analyses that contribute to the understanding and development of Integrated Science. At IJCIISE, we believe in the power of interdisciplinary collaboration and inclusivity. We welcome contributions from scholars, practitioners, and thought leaders worldwide, providing a space for diverse perspectives and groundbreaking work. As we embark on this journey, we invite you to submit your research, engage with our content, and join us in creating a vibrant academic community. Together, we can push the boundaries of knowledge and inspire future generations. Thank you for your support as we launch this exciting new endeavour.

This edition moves around issues that border on **"Enhancing Quality Assurance in Integrated Science in Nigeria."** It is believed that diverse contributions from scholars and researchers expressed in this edition will provoke the understanding of issues that could foster education for societal transformations on a global scale
We look forward to your contributions!

For further information on future conference activities, visit **http://ijciise.org/index.php/ijciise**

Warm regards,
Professor O. S. Agboola
President, Integrated Science Educators' Association of Nigeria (ISEAN)

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CONCEPTION OF TEACHERS' STRATEGIES ON QUALITY ASSURANCE IN THE DELIVERY OF ACADEMIC CONTENT AMONG BASIC SCIENCE TEACHERS IN IBADAN METROPOLIS, OYO STATE

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Abstract
This study investigated the conception of teachers' strategies on quality assurance in the delivery of academic content among Basic science teachers in Ibadan Metropolis, Oyo State. The descriptive survey design was adopted. The population of the study comprised all Basic Science Teachers in Ibadan Metropolis, Oyo State. Stratified random sampling technique was used to select 90 teachers in the sampled schools. A self – designed and validated questionnaire was used to collect data from the participants. Data collected were analysed using descriptive statistics; percentages and frequency counts. Frequency counts were used to analyse the demographic data of participants, the research questions were analysed using Pearson Product Moment Correlation (PPMC), while the hypotheses were tested at 0.05 level of significance using t-test statistic. The result showed that there is no significant relationship between Basic Science Teachers' quality assurance and teaching strategies; no significant difference in teachers' quality assurance of male and female; no relationship between Basic Science Teachers' experience and conception of quality assurance; there is no significant difference in the quality assurance of teachers who have below 10 years experience and those with above 10 years experience. Based on these findings, it was recommended that teachers should be exposed to the tenets of quality assurance which could enhance teachers' strategies and quality of teaching Basic Science.
Keywords: Quality assurance, Basic science, Teachers, Conception, Strategies

Introduction

Quality assurance in the field of education has evolved into a broad notion that encompasses all procedures, policies, and practices that support, develop, and uphold the quality of education delivered. (Whitely, as referenced by Nwagwu, 2021). According to Nwagwu (2021), the enforcement of quality assurance stems from the belief that a high-quality education is essential for the socio-economic, political, and cultural transformation for the advancement of any country. Teachers are thought to play a crucial role in delivering high-quality education, even though the government and other members of society are not excluded in this regard. They are viewed as the curriculum's direct interpreters and executors (Abdul, 2021). Thus, it is important to provide teachers with sufficient training, seminars, and quality assurance's progressive supervision in order to maximize their output. Training trainees should be the top priority when it comes to preparing them for such significant roles as teachers. Regretfully, in the post-independence era, professional teacher education has been utterly disregarded; educators, legislators, and parents in Nigeria also subscribe to the belief that excellent teachers result in excellent students (Ugwokeet, et al, 2021).It is required of teachers to serve as the means of realizing the objectives of education in every country. Therefore, in order to generate the necessary efficiency in the education sector, instructors are expected to perform at their highest level. To guarantee that students have an excellent educational experience, quality assurance in the classroom is essential (Mandinach & Gummer, 2020). In particular, junior secondary schools are essential for setting the groundwork for children' future academic achievement (Santoro, 2020).However, a number of issues, such as inadequate teacher preparation, a lack of resources, and subpar instructional techniques, may jeopardize the standard of instruction at these institutions (Gay, 2019).

Teachers are the foundation of any educational institution, and therefore, their methods for guaranteeing quality control have a big influence on the learning results of their students (Boud & Associates, 2020). Despite the significance of quality assurance in education, studies have revealed that junior secondary school teachers frequently lack the assistance and quality assurance training needed to create efficient quality assurance plans (Desimone, 2019). As a result, there is now more emphasis on the establishment of quality assurance procedures in schools and the professional development of teachers (Friend & Cook, 2020). Therefore, in order to guarantee the provision of high-quality education, junior secondary schools must implement quality assurance. It is the cornerstone of efficacy and efficiency in the field of education. In the education sector, quality assurance and productivity are symbiotically and essentially related.

Quality assurance is an underlining success that can guarantee that students have an excellent educational experience. This is the reason why quality assurance in the classroom is essential (Mandinach and Gummer, 2020). Instructors are essential to maintaining quality control, and their methods have a big influence on the learning results of students (Boud and Associates, 2020). Formative assessments, student-

centered teaching strategies, and reflective practices have all been linked to improved students' learning outcomes, according to William (2019). Furthermore, educators who participate in professional development activities and cooperate with peers tend to create quality assurance systems that are more successful (Desimone, 2019).

The quality assurance techniques used by junior secondary school teachers play a crucial role in setting the groundwork for pupils' future academic achievement (Santoro, 2020). However, studies have revealed that instructors at these schools frequently encounter difficulties putting quality assurance techniques into practice, such as a lack of support and training (Gay, 2019). According to recent research, teacher autonomy and agency are crucial for guaranteeing quality control (Rudduck & Fielding, 2020). According to Friend and Cook (2020), educators who are given the freedom to own their teaching methods tend to create quality assurance plans that are more successful.

Additionally, it has been determined that technology plays a significant role in improving educational quality assurance (Gibbs and Simpson, 2020). Students' learning outcomes are typically improved by teachers who successfully incorporate technology into their lesson plans (Mandinach & Gummer, 2020). According to study, junior secondary school instructors in Nigeria confront particular difficulties in guaranteeing quality assurance, such as a lack of facilities and resources (Santoro, 2020). Studies have also shown that professional development and teacher collaboration have the potential to improve quality assurance in these schools (Desimone, 2019).

Also, the research indicates that in order to guarantee that pupils have a top-notch educational experience, teachers' quality assurance techniques are essential. Therefore, in order to fully understand the potential and unique obstacles that Nigerian junior secondary school teachers confront, more research is required.

Many junior secondary schools in Nigeria struggle to give their students a top-notch educational experience, raising serious concerns about the quality of education in that country (Rudduck & Fielding, 2020). The consequences of this kind of education include: production of half-baked future leaders who would not be able to stand right in the committee of nations, production of academic devils prone to destruction of all established institutions, mass production of the unemployable graduates, aggravation of criminal activities in the country, and poor technological and infrastructural developments. This has prompted requests for additional study on the methods teachers employ to guarantee quality control in these educational institutions. By examining the conceptualization of teachers' quality assurance procedures in junior secondary schools in Ibadan Metropolis, Oyo State, this study seeks to close the knowledge gap.

This study is significant because it will shed light on the methods teachers employ to guarantee quality control, which is essential for raising students' achievement levels. In addition, the study will add to the body of knowledge already available on quality assurance in education by offering suggestions to legislators,

administrators, and educators. This study is to enhance the body of knowledge on teacher practices for quality assurance and to offer guidance to educators, school administrators, and policy makers on how to raise the standard of instruction in junior secondary schools.

Purpose of the study

This study aims to investigate junior secondary school teachers' conceptions and teaching strategies about quality assurance procedures.

The specific objectives are to:

i) Determine the connection between teaching styles and basic science teachers' qualifications for quality assurance.
ii) Ascertain how gender affects the subject matter knowledge of basic science teachers on quality assurance
iii) Investigate how basic science teachers see the importance of their teaching methods with regard to quality control.
iv) Determine the notable variations in the quality assurance of educators with experience ranging from less than ten years to more than ten years.

Research Hypotheses

The following research hypotheses were generated to guide the study:

i. There is no significant relationship between teaching methods and the certification of Basic Science Teachers in terms of quality assurance
ii. There is no significant gender difference on the subject matter knowledge of basic science teachers in Ibadan Metropolis for quality assurance
iii. There is no significant relationship between basic science teachers conception of their experiences and their teaching for quality assurance
iv. There is no significant difference in the conception of quality assurance between teachers with less than 10 years of experience and their counterparts with more than 10 years of experience.

Methodology

The idea of teachers' approaches to quality assurance in junior secondary schools was investigated using a descriptive statistics study design. Basic science teachers in junior secondary schools in Ibadan Metropolis , Oyo State, made up the study's population. The respondents were chosen at random from secondary schools in Ibadan Metropolis , Oyo State, by the researchers using a stratified random sampling technique. For this study, 16 junior secondary schools-both public and private-were chosen. Ninety teachers were chosen at random. A self-structured questionnaire was the research tool employed in this study. The researchers administered the questionnaire on 90respondents. The instruments were distributed to the intended respondents at the junior secondary schools in Ibadan Metropolis, Oyo State by the researchers working with the science head teachers. As soon as the

questionnaires were administered, the researchers waited to collect the completed questionnaires back to make sure nothing was missed. Descriptive statistics on demographic features were used to analyze the data gathered for the study; research questions were tested using Pearson Product Moment Correlation (PPMC) and T-test for independent variables to summarize questionnaire data and facilitate comprehension of the study's conclusions.

Results

Based on the research questions posed in the study and the demographics of the respondents, this outcome displays the data analysis and interpretation. While the study hypotheses were assessed using the T-test for independent samples and the Pearson Product Moment Correlation (PPMC), the demographic parameters were analyzed using descriptive statistics. Justification for inclusion of the demographic parameters is just to present the entire systematic field work on the respondents as was found during the study.

Demographic Characteristics of the Respondents

Table 1: Percentage Distribution of Respondents' School.

School	Frequency	Percent (%)
A	9	10%
B	4	4.4%
C	5	5.6%
D	12	13.3%
E	11	12.2%
F	25	27.8%
G	2	2.2%
H	1	1.1%
I	2	2.2%
J	1	1.1%
K	1	1.1%
L	1	1.1%
M	1	1.1%
N	1	1.1%
O	12	13.3%
P	2	2.2%
Total	90	100%

Source: field survey

Table 1 shows the distribution of respondents from the various schools in Ibadan Metropolis where Basic Science Teachers are available.

Table 2:

Gender	Frequency	Percent (%)
Male	29	32.2%
Gender	61	67.8
Total	90	100%

Source: field survey

Table 2 indicates that, of the 90 respondents, 32.2% are men and 67.8% are women. This indicates that women make up the majority of the respondents.

Table 3

Age Category	Frequency	Percent (%)
25 - 34	31	34.4%
35 - 44	35	38.9%
45 - 54	21	23.3%
55 and above	3	3.3%
Total	90	100%

Source: field survey

Out of 90 respondents, Table 3 shows that 34.4% are between the ages of 25 and 34, 38.9% are between the ages of 35 and 44, 23.3% are between the ages of 45 and 54, and the remaining 3.3% are 55 and older. This suggests that the bulk of responders are in the age range of 35 to 44.

Table 4

Qualification	Frequency	Percent (%)
NCE	10	11.1%
HND	18	20%
B.Sc	53	58.9%
M.Ed	9	10%
Total	90	100%

Source: field survey

According to Table 4, of the 90 respondents, 11.1% possess an NCE, 20% have an HND, 58.9% have a bachelor's degree, and the remaining 10% have a master's degree. This suggests that a bachelor's degree is held by the majority of responders.

Table 5

Institution	Frequency	Percent (%)
JSS 1	19	21.1%
JSS 2	29	32.2%
JSS 3	42	46.7%
Total	90	100%

Source: field survey

Based on Table 5, it can be observed that of the 90 respondents, 21.1% teach JSS 1, 32.2% teach JSS 2, and 46.7% teach JSS 3. This suggests that the majority of responders instruct JSS 3 classes at their different educational institutions.

Table 6

Years of Experience	Frequency	Percent (%)
Less than 10 years	31	34.4%
10 years and above	59	65.6%
Total	90	100%

Source: field survey

Table 6 shows that, of the 90 respondents, 34.4% are instructors with less than ten years of experience, and the remaining 65.6% are teachers with ten years or more of experience. This suggests that the majority of responders had worked as teachers for more than ten years.

Research Hypotheses

Hypothesis 1:

There is no significant relationship between teaching methods and the certification of Basic Science Teachers in terms of quality assurance

Table 7: PPMC summary showing relationship between qualification of Teachers and quality assurance.

Table 7

Variables	N	Mean	Std. dev.	df	r	Sig.	P
Quality Assurance	90	62.58	12.39	88	-131	.218	70.05
Teachers' Qualification		2.68	.91				

Source: field survey

Table 7 showed that there is no statistically significant correlation (r (88) = -.131, p>0.05) between the credentials of teachers and quality assurance. As a result, there is no connection between instructional methodologies and quality assurance for basic science teachers.

Hypothesis 2:

There is no significant gender difference on the subject matter knowledge of basic science teachers in Ibadan Metropolis for quality assurance

Table 8: Result of t-test showing the significant difference between the quality assurance of basic science teachers based on gender.

Table 8

Variables	Gender	N	Mean	Std. dev.	t	df	Sig	P	n
Quality Assurance	Male	29	62.55	12.07					
	Female	61	62.59	12.63	-.014	88	.989	>.05	0.0002

Source: field survey

According to Table 8, t(88) = -.014, p>0.05, 2= 0.00, there is no discernible difference between the quality assurance of males and females. As a result, there is no discernible difference between male and female teachers' quality assurance.

Hypothesis 3:
There is no significant relationship between basic science teachers' conception of their experiences and their teaching for quality assurance

Table 9: PPMC summary showing influence of conception of Teachers on quality assurance.

Table 9

Variables	N	Mean	Std. dev.	df	R	Sig	P
Quality Assurance		62.58	12.39				
Teachers' Conceptions	90	42.82	7.11	88	.193	.989	>0.05

Source: field survey

Table 9 showed that there is no significant correlation (r(88) =.193, p>0.05) between teachers' conceptualization and quality assurance. As a result, there is no correlation between the experience of basic science teachers with quality assurance.

Hypothesis 4:
There is no significant difference in the conception of quality assurance between teachers with less than 10 years of experience and their counterparts with more than 10 years of experience.

Table 10: T-test summary showing the significant difference between the quality assurance of teachers based on their experience category.

Table 10

Variables	Gender	N	Mean	Std. dev.	T	Df	Sig	P	N
Quality Assurance	Below 10 years	31	62.19	15.76	.212	88	.832	>.05	0.0005
	Above 10 years	59	82.78	10.33					

Source: field survey

Based on their years of experience, teachers' quality assurance does not significantly differ, as shown by Table 10 (t(88) =.212, p>0.05, 2= 0.00). As a result, there is no discernible difference between teachers with more than ten years of experience and those with less than ten in terms of quality assurance.

Discussion

This study has made certain revelations concerning conception of quality assurance among basic science teachers in junior secondary schools in Ibadan Metropolis, Oyo state. The findings are discussed according to the four hypotheses.

The first hypothesis which stated that there is no significant relationship between teaching methods and the certification of Basic Science Teachers in terms of quality assurance has revealed that there is no statistically significant correlation between the credentials of teachers and quality assurance. As a result, there is no connection between instructional methodologies and quality assurance for basic science teachers possibly because most of the teachers still use the traditional methods of teaching without any recurrence to quality assurance. These kinds of results do not go down well with the earlier work of Mandinach and Gummer (2020) who stressed the inevitability of quality assurance in educational engagements.

The second hypothesis which stated there is no significant gender difference and the subject matter knowledge of basic science teachers in Ibadan Metropolis for quality assurance has shown vividly that there is no discernible difference between the quality assurance of males and females. As a result, there is no discernible difference between male and female teachers' quality assurance. This kind of result might have occurred as a result of the fact that both male and female teachers are exposed to the same kind of experience in the same environment. Both male and female teachers go about the dissemination of their duties without giving any cognizance to quality assurance. This finding corroborates that of Boud and Associates (2020) who reacted to the poor performance on quality assurance of males and females and commented that it might be due to the unavailability of adequate instructors that made teachers jettison quality control.

The third hypothesis which stated that there is no significant relationship between basic science teachers' conception and how they teach for quality assurance has revealed that there is no significant correlation between teachers' conceptualization and quality assurance. As a result, there is no correlation between the conceptions of basic science teachers with quality assurance. This might be due to the fact that teachers just perform their professional callings without thinking about quality assurance. In fact, many of such teachers might not have heard about quality assurance. This finding actually corroborated that of Santoro (2020), who commented that this might have been lacking in our secondary schools as it has earlier been found that quality assurance techniques used by junior secondary school teachers play a crucial role in setting the groundwork for pupils' future academic achievement (Santoro, 2020).

The fourth hypothesis which stated that there is no significant difference between the quality assurance of teachers with less than 10 years of experience and those with more than 10 years of experience has shown that their years of experience, teachers' quality assurance does not significantly differ. As a result, there is no discernible difference between teachers with more than ten years of experience and those with less than ten in terms of quality assurance. As a result, there is no correlation between the experiences of basic science teachers with quality assurance. This kind of result might be due to the fact that experience does not really matter in certain undertakings; individual's orientation, the mind to maintain status-quo and attitude might prevail in the dissemination of duties. In this finding, it is evident that the teachers have been immersed in the traditional teaching methods and experience does not count as far as caring for quality assurance was concerned. This might be what Desimone (2019) saw that he finally commented that only educators who participate in professional development activities and cooperate with peers tend to create quality assurance systems that are more successful.

Conclusion

The study's conclusions shed light on how teachers in junior secondary schools conceptualize their approaches to guaranteeing quality control, which has really shown that the teachers flounder woefully as far as quality assurance was concerned. According to the findings, there is no meaningful connection between teaching methods and the certification of Basic Science Teachers in terms of quality assurance. Also, gender does not have any impact on the subject matter knowledge of basic science teachers in Ibadan Metropolis for quality assurance. Furthermore, the way basic science teachers think about their experiences does not have a big impact on how they teach for quality assurance; and finally, the quality assurance of teachers with less than 10 years of experience does not differ significantly from that of teachers with more than 10 years of experience. The results of the study clearly demonstrates that nothing concerns the teachers about quality assurance. There is no implication of knowledge of quality assurance on the dissemination of the teachers'

duties. This does not speak well for educational growth and development in our society.

Recommendations

Given the results of the study, the following suggestions are put forth:

i) Teachers should get continual professional development and assistance in order to improve their ability to guarantee quality control.

ii) Strategies for quality assurance in teacher preparation should be highlighted in teacher education programmes.

iii) Knowledge of quality assurance should be integrated into the teachers' curriculum so that they can disseminate their professional duties judiciously, and should also be exposed to conferences, seminars, and workshops to widen their perspectives.

iv) To improve quality assurance, schools should spend money on technology infrastructure and teacher training.

Schools can improve student learning results and the quality of education by putting these recommendations into practice.

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