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It gives me great pleasure to launch the maiden edition of this new journal, "Nigerian Journal of Educational Technology" (NIJET). The Nigerian Journal of Educational Technology (NIJET) is an institutional journal resident in the Department of Educational Technology, Faculty of Education, University of Ilorin, Ilorin, Nigeria. NIJET is a peer-reviewed bi-annual journal (June and December) on educational technology issues. The journal is devoted to presenting and discussing the emerging developments in educational technology. The objective of the journal is to publish original research, empirical and review articles to contribute to the development of educational technology field. In pursuit of this objective, the journal not only publishes high quality, peer-reviewed research papers but also ensures that the published papers achieve broad international credibility. There are a lot of challenges in teaching and learning emanating from emerging developments in Information and Communication Technology (ICT). The application of technology is a key theme in every paper which is published in this journal. The intent of this journal is to showcase technologies which could bring about a fundamental change in achieving instructional effectiveness in academic institutions and workplaces. The first volume with two issues (volume 1, numbers 1&2) has been very carefully put together covering a range of instructional use of technologies in the domain of human computer interface, wireless technologies in synchronous and asynchronous environments. Authors of publication of the journal are responsible for their content. Credit for the content and responsibility for errors or fraud are borne equally by all authors. I would like to appreciate all the members of the editorial board and reviewers for their courageous attempt in making this journal a possibility. We have had an overwhelming response from some eminent Editors and researchers globally to support as Editorial Team. I look forward to making this endeavour very meaningful. A very warm thanks to University of Ilorin for providing opportunity to make this journal a reality.

Professor Samuel A. ONASANYA
Editor-in-Chief,
Nigerian Journal of Educational Technology (NIJET)

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THE SCIENCE, TECHNOLOGY AND SOCIETY CURRICULUM AS INNOVATION IN KWARA
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Abstract

The Introduction of Science, Technology and Society curriculum into science curriculum equipping students to understand and situate scientific and technological developments in cultural, environmental, economic, political and social contexts. Hence, this study was conducted to find out the views of secondary school teachers in Kwara State on the introduction of the Science, Technology and Society (STS) curriculum into the basic Science curriculum of the upper secondary of the Nigeria Education System. The study was a descriptive survey involving 256 Basic Science Teachers Sampled using cluster sampling techniques. The instrument for the study was a specially designed questionnaire termed Science, Technology and Society Curriculum Questionnaire (STSCQ). Data obtained were analyzed using frequency counts, percentages, mean and standard deviation statistics. The result of the study revealed that there was no significant difference between the views of experienced and less experienced as well as between the male and female basic science teachers on the relevance, adequacy and implementation of STS curriculum into the secondary school curriculum. Therefore, experienced and less experienced basic Science teachers had similar views on the relevance, adequacy and implementation of the STS curriculum to the secondary school curriculum. Based on the finding of this study, it was recommended that the STS component of the Basic Science curriculum be retained and revised regularly to include new areas of scientific knowledge and technology to the society.

Keywords: Basic Science, Teachers, Science, Technology, Society.

Introduction

Basic science (formerly known as integrated science) as a school subject is a science that incorporates the basic science subjects of physics, chemistry and biology at upper level of the education system. It unifies the science subjects and emphasizes the interrelationship between them. Basic science teachers are teachers who have undergone teachers training and obtained a certificate of Nigeria certificate in Education with specialization in integrated science (Now Basic Science). Science technology and society (STS) has gained popularity worldwide. In the USA, STS is an area for identifying new goals, curriculum, modules, instructional strategies and evaluation (Yager, 1990). In the UK, STS is taught as science and technology. Nigerian Journal of Educational Technology, Vol. 1 No. 2, 2016

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Table 1: Science, Technology and Society Study in the Nigerian Basic Science Curriculum

Unit	Topic
LIVING THINGS	Identifying self as a living thing. Human intelligence shown by his /her organization, problem solving skill etc.
FEEDING	Keeping teeth clean
EXCRETORY SYSTEM	Excreta are poisonous
RESPIRATORY SYSTEM CIRCULATORY SYSTEM	Problems connected with breathing need for respiration

Blood defects or diseases Source: *STAN (2001)* fundamentals of science, technology and society.

Programmes in Science, Technology and Society were found in 1976 (STAN, 2001). The programme attempts to increase human understanding of the human built world. Science and technology are no longer specialized enterprise confined to factories and laboratories; they have become intertwined with each other and with human society. The fundamental contribution of STS is to look at the human built world as an integrated whole. There are two basic interrelated questions which are addressed to faculty and students in the programme of Science, Technology and Society. They are: (1) How do science and technology evolve as human activities? (2) How do they relate to larger civilization?

It is therefore difficult to separate curriculum from instruction where we are actually teaching in classroom. According to Solomon and Aikenhead (1994), the curricular features of STS science teaching are based on four aspects of curriculum:

Function- what are the goals for teaching science through STS? Content- what should be taught?

Structure- how should the science and STS content be integrated? Sequence- how can we design STS instruction?

Holbrook (1992), opined that the man-made world around us today is based on technology. Science is less visible and yet to obtain a more technologically literate society, there is a need for people to receive a more relevant grounding in science. In the United States, efforts were made in the early years of education to create a science programme that would study science in the college (Yager, 1991). The use of STS as an interdisciplinary and multicultural significant approach to curriculum was made apparent in a submission by Solomon and Aikenhead (1994). In consideration of the relationship between science and society, one would consider the relationship between science and the rest of culture. It is common nowadays that people talk of the contemporary period as the age of science and technology. Even people in the most rural areas of Nigeria

feel the impact of science and technology in some form or another. The effect of science and technology has therefore been towards improving the quality of life of individual and society. Science has contributed to human effectiveness by providing information on the care of human body through the means of preventing and curing human disease. The main purpose of this study was to find out the views of basic science teachers on the introduction of Science Technology and Society curriculum into basic science curriculum of upper basic level of Nigeria education system. Specifically, the study sought to find out the views of basic science teachers on:-

1. Whether difference exist in the views of experienced and less experienced teachers on the relevance of the STS curriculum to the secondary school level of education.
2. Whether difference exist in the views of experienced and less experienced teachers on the adequacy of the STS curriculum to the secondary schools of education.
3. Whether differences exist in the views of experienced and less experienced teachers on the implementation of STS curriculum to the secondary school level of education?

Answers were sought for the following research questions:

1. What are the views of experienced and less experienced teachers on the relevance of the STS curriculum to the secondary school level of education?
2. What views do the experienced and less experienced teachers have on the adequacy of the STS curriculum to the secondary schools of education?

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3. What are the views of experienced and less experienced teachers on the implementation of STS

curriculum to the secondary school level of education? The following hypotheses were put to test:

1. There is no significant difference between the views of experienced and less experienced teachers on the relevance of the STS curriculum to the secondary school level of education.
2. There is no significant difference between the view of experienced and less experienced teachers on the adequacy of the STS curriculum to the secondary schools of education.
3. There is no significant difference between the views of experienced and less experienced teachers on the implementation of STS curriculum to the secondary school level of education.

Methodology

The study employed a descriptive method to determine and report the views of science teachers on the introduction of Science, Technology and Society into the secondary school curriculum in Kwara State. The target population for the study were science teachers in secondary schools in Ilorin Metropolis. There were a total of 429 teachers, out of this population, 256 teachers were sampled using cluster sampling technique which enabled proportional participation by male and female teachers. The instrument for the study was a researcher designed questionnaire termed Science, Technology and Society Curriculum Questionnaire (STSCQ). It has two sections A and B, section A requests demographic information of the respondents on their years of teaching experience while section B is designed to elicit response from the respondents, about the views of science teachers on the introduction of science, technology and society into basic science curriculum. Section B consists of twenty-two items. The items were separated into three parts. Part 1 sought to elicit response on the relevance of the components of the science curriculum, part 2 sought information on the adequacy while part 3 sought information on the implementation of the STS curriculum. Part 1 had four response modes of strongly agree, agree, disagree and strongly disagree. Part 2 had response modes of adequate and not adequate while part 3 had two response modes of yes and no.

Data Analysis

Data obtained as teachers' response on the views on the introduction of STS in secondary school curriculum in Kwara State were analyzed using frequency counts, percentage, mean and chi-square statistics. The hypotheses were put to test using chi-square statistics. Research question one states

What are the views of experienced and less experienced teachers on the relevance of the STS curriculum to the secondary school level of education?' This research question translated to hypothesis one which states that there is no significant difference between the views of experienced and less experienced teachers on the relevance of the STS curriculum to the secondary school level of education.

Table 2: Chi- square analysis of the responses of experienced and less experienced science teachers to contents pertaining to relevance of the STS components of the Basic Science curriculum

S/N	Experience	Agreed	Disagreed	Total	² Df		Remark
	Experienced	180 (185.1)	26 (20.9)	206	7.024	1	S
	Less experienced	50 (44.9)	0 (5.1)	50			
2	Experienced	192 (193.1)	14 (12.9)	206	0.537	1	NS
	Less experienced	48 (46.9)	2 (3.1)	50			
3	Experienced	190 (191.5)	16 (14.5)	206	0.873	1	NS
	Less experienced	48 (46.5)	2 (3.5)	50			
4	Experienced	188 (188.3)	46 (45.7)	206	0.028	1	NS
	Less experienced	18 (17.7)	4 (4.3)	50			
5	Experienced	184 (183.5)	22 (22.5)	206	0.072	1	NS
	Less experienced	44 (44.5)	6 (5.5)	50			
6	Experienced	170 (173.8)	36 (32.2)	206	2.740	1	NS
	Less experienced	46 (42.2)	4 (7.8)	50			
7	Experienced	186 (186.7)	20 (19.3)	206	0.138	1	NS
	Less experienced	46 (45.3)	4 (4.7)	50			
8	Experienced	182 (183.5)	24 (22.5)	206	0.550	1	NS
	Less experienced	46 (44.5)	4 (5.5)	50			
9	Experienced	176 (178.6)	30 (27.4)	206	1.505	1	NS
	Less experienced	46 (43.4)	4 (6.6)	50			
10	Experienced	162 (157.7)	44 (48.3)	206	2.539	1	NS
	Less experienced	34 (38.3)	16 (11.7)	50			
11	Experienced	132 (135.2)	74 (70.8)	206	1.119	1	NS
	Less experienced	36 (32.8)	14 (17.2)	50			

Key: 10 are NS and 1 S

Table 3: Chi-square analysis of average overall of the responses of experienced and less experienced science teachers to contents pertaining to relevance of the STS components of the Basic Science curriculum.

S/N	Variable	Agreed	Disagreed	Total	²	df	Remark
1.	Experienced	196 (194.7)	10 (11.3)	206	0.770	1	NS
2.	Less experienced	46 (47.3)	4 (2.7)	50			
	Total	242	14	256			

From Table 2, the Chi-square calculated (²) was 0.770, while the table value was 3.84 at 0.05 alpha level, with 1 degree of freedom, therefore *H₀* is not rejected. This shows that there is no significant difference between the opinions of experienced and less experienced teachers on the relevance of the STS curriculum to the secondary school level of education. The above hypothesis was tested in each of the items for the relevance of the STS curriculum to the secondary school level of education and the results were presented in Table 1. In this table, the calculated chi-square (²) was less than the table value (3.84) at 0.05 alpha level with 1 degree of freedom of 1 except for content

1 in which the chi-square 7.024 was greater than the table value (3.84). It shows that on

the average, there is no significant difference between the opinions of experienced and less experienced teachers on the relevance of the STS curriculum to the secondary school level of education.

Research question two states that: *What are the views of experienced and less experienced teachers on the adequacy of the STS curriculum to the secondary school level of education?* This research question translated to **Hypothesis two** which states that there is no significant difference between the views of experienced and less experienced teachers on the adequacy of the STS curriculum to the secondary school level of education.

Table 4: The number and percentages of teachers' responses to contents pertaining to adequacy of the STS components of the Basic Science curriculum

S/NO	CONTENTS	Adequate	Inadequate	Total
1	The quantity of Biology-related topics	218 (85.2%)	38 (14.8%)	256
2	The quantity of Chemistry-related topics	206 (80.5%)	50 (19.5%)	256
3	The quantity of Physics-related topics	100 (74.2%)	66 (25.8%)	256
4	The quantity of Health-related topics	152 (59.4%)	104 (40.6%)	256
5	The quantity of Agric-related topics	198 (77.3%)	58 (22.7%)	256
6	The quantity of Technology-related topics	142 (55.5%)	114 (44.5%)	256
7	The inter-relatedness of the topics	166 (64.8%)	90 (35.2%)	256
8	Overall responses to adequacy of the STS components of the basic science curriculum	200 (78.1%)	56 (21.9%)	256

Table 5: Chi-square analysis of average overall of the responses of experienced and less experienced science teachers to contents pertaining to adequacy of the STS components of the Basic Science curriculum

S/N	Variable	Adequate	Inadequate	Total	²	df	Remark
1.	Experienced	164 (160.9)	42 (45.1)	206	1.364	1	NS
Z	Less experienced	36 (39.1)	14 (10.9)	50			
	Total	200	56	256			

From Table 5, the Chi-square calculated (χ^2) was 1.364, while the table value was 3.84 at 0.05 alpha level, with 1 degree of freedom, therefore H_0 is not rejected. This shows that there is no significant difference between the opinions of experienced and less experienced teachers on the adequacy of the STS

curriculum to the secondary school level of education. The above hypothesis was tested in each of the items for the adequacy of the STS curriculum to the secondary school level of education and the results were presented in Table 4. In this table, all the calculated chi-square (χ^2) was less than the table value (3.84) at 0.05 alpha level with degree of freedom of 1. It shows therefore that there is no significant difference between the views of experienced and less experienced teachers on the adequacy of the STS curriculum to the secondary school level of education.

Research question three states that: What are the views of experienced and less experienced teachers on the implementation of the STS curriculum to the secondary school level of education? This research question translated to **Hypothesis three** which states that there is no significant difference between the views of experienced and less experienced teachers on implementation of the STS curriculum to the secondary school level of education.

Table 6: Chi- square analysis of the responses of experienced and less experienced science teachers to contents pertaining to implementation of the STS components of the Basic Science curriculum

S/N	Experience	Yes	No	Total	χ^2	df	Remark
1	Experienced	184 (186.7)	22 (19.3)	206	2.113	1	NS
	Less experienced	48 (45.3)	2 (4.7)	50			
2	Experienced	116 (114.3)	90 (91.7)	206	0.303	1	NS
	Less experienced	26 (27.7)	24 (22.3)	50			
3	Experienced	96 (91.7)	110 (114.3)	206	1.831	1	NS
	Less experienced	18 (22.3)	32 (27.7)	50			
4	Experienced	128 (128.8)	78 (77.3)	206	0.060	1	NS
	Less experienced	32 (31.3)	18 (18.8)	50			
5	Experienced	136 (130.4)	70 (75.6)	206	3.403	1	NS
	Less experienced	26 (31.6)	24 (18.4)	50			
6	Experienced	98 (91.7)	108 (114.3)	206	3.950	1	S
	Less experienced	16 (22.3)	34 (27.7)	50			
	Less experienced	30 (28.1)	20 (21.9)	50			
8	Experienced	110 (115.9)	112 (112.0)	206	3.486	1	NS
	Less experienced	34 (28.1)	16 (21.9)	50			
9	Experienced	74 (85.3)	132 (120.7)	206	13.074	1	S
	Less experienced	32 (20.7)	18 (29.3)	50			
7 NS and 2 S							

Table 7: Chi-square analysis of average overall of the responses of experienced and less experienced science teachers to contents pertaining to implementation of the STS components of the basic Science curriculum

S/N	Variable	Yes	No	Total	²	df	Remark
1.	Experienced	128 (128.8)	78 (77.3)	206	0.060	1	NS
2.	Less experienced	32 (31.3)	18 (18.8)	50			
	Total	160	96	256			

From Table 7, the Chi-square calculated (χ^2) was 0.060, while the table value was 3.84 at 0.05 alpha level, with 1 degree of freedom, we therefore *do not* reject H_0 . This shows that there is no significant difference between the views of experienced and less experienced teachers on the implementation of the STS curriculum to the secondary school level of education. The above hypothesis was tested in each of the items for the implementation of the STS curriculum to the secondary school level of education and the results were presented in Table 6. In this table, the calculated chi-square (χ^2) is less than the table value (3.84) at 0.05 alpha level with degree of freedom of 1 except for content 6 and 9 with chi-square value of 3.950 and 13.074 respectively, which were greater than the table value (3.84). It shows therefore that on the average, there is no significant difference between the views of experienced and less experienced teachers on the implementation of the STS curriculum to the secondary school level of education.

Summary of the Major Findings

1. There is no significant difference between the views of experienced and less experienced teachers on the relevance of the STS curriculum to the secondary school level of education.
2. There is no significant difference between the views of experienced and less experienced teachers on the adequacy of the STS curriculum to the secondary school level of education.
3. There is no significant difference between the views of experienced and less experienced teachers on implementation of the STS curriculum to the secondary school level of education.

Discussion

It was found out in this study that there was no significant difference between the views of experienced and less experienced Basic Science teachers on the relevance, adequacy and implementation

of the STS curriculum to the secondary school level of education. By implication, experienced and less experienced Basic Science teachers have similar views on the relevance, adequacy and implementation of the STS curriculum. In other words the views of the Basic Science teachers were not influenced by their level of experience. While most of the respondents responded favourably to the relevance and adequacy of the STS component of the Basic Science curriculum, a higher percentage of them responded negatively to the implementation, even though the percentage of those who responded positively to the implementation was higher. In other words, there were more negative total responses for implementation than for relevance and adequacy.

Available studies in the literature, known to the researcher do not touch directly on how the variables of teachers' experience, influence teachers' views on any STS curriculum. The available write ups are mainly essays giving explanations on the relationships between science, technology and society. Examples of such include the works of Ajewole (2005) who merely examined the use of manpower development in STS education in Nigeria. He looked at the historical context of some policies in of science education in Nigeria and the advanced countries and noted the poor achievement of science and technology education in secondary schools. He concluded that there was an urgent need for manpower for the STS based subjects. Maduemezia (1997) also presented a graphic picture of the problems bedeviling science, technology and mathematics education in Africa and stated that there was hardly any doubt in anybody's mind in terms of the quantum of scientific and technological knowledge that exists in the world today and is available for tapping by all and sundry. Earlier on, Bybee, Buchwald, Crissman, Heil and Kuebi: (1989) had given a detailed explanation of the interrelationship between science, technology and society

Conclusion

It was found out in this study that there was no significance difference between the views of experienced and less experienced Basic Science teachers on the relevance, adequacy and implementation of the STS curriculum to the secondary school level of education. By implication, experienced and less experienced Basic Science teachers have similar views on the relevance, adequacy and implementation of the STS curriculum. In other words the views of the Basic Science Teachers were not influenced by their level of experienced. While most of the respondents responded favourably to the relevance and adequacy of the STS component of the Basic Science Curriculum, a higher percentage of them responded negatively to the implementation, even though the percentage of those who responded positively to the implementation was higher.

Recommendations

Based on the findings of this study, the following recommendations are put forward:

1. Since the views expressed by the experienced and the less experienced teachers on the relevance, adequacy and implementation of STS to the Basic Science curriculum are similar, the views expressed by the teachers should be taken seriously and taken into consideration by curriculum developers, so that a better Basic Science curriculum can be formulated.
2. Students should be provided with the opportunity to see and witness the application of scientific knowledge to societal needs by taking them to establishments where scientific knowledge are directly utilized in production.
3. A few of the teachers who were approached to respond to the questionnaire claimed ignorance of the STS curriculum, therefore, it is recommended that seminars, workshops and conferences be organized for Basic Science teachers to enlighten them on it so that they can use the STS approach in their teaching.

References

- Ajewole, G. (2005). Science and technology education in secondary schools: Need for manpower development. *Journal of the Science Teachers Association of Nigeria*. 40 (1 & 2), 63 – 67.
- Bybee, R.W., Buchwald, C.E., Crissman, S. Heil, D.R., Kuebis, P.H., Matsumoto, C., & McLerney, J.D. (1989). *Science and technology education for elementary years*. Frameworks for curriculum and instruction.
- Holbrook, J. B. (1992). *Teaching science the STS way*: ICASE yearbook, 9 - 13
- Maduemezia, A. (1997). *Science and technology education for development*. Proceedings of the 11th annual congress of the Nigeria Academy of Education. Lagos: Everland printing and Publishing Company Ltd.
- STAN (2001). *Fundamentals of Science, Technology and Society*. Ibadan.
- Yager, R.E. (1990). STS as a development in science education. *Science Education International* 1 (4), 24-27.