

ACCESSIBILITY OF SECONDARY SCHOOL TEACHERS TO PEDAGOGICAL INVENTIONS OF RECENT TIMES

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Abstract

This paper evaluated the teaching of secondary school teachers to pedagogical inventions of recent times, the focus of the paper is to determine whether the innovation as documented in research, especially in the area of teaching methods, are being practiced in the secondary schools. Data were collected from 110 secondary school teachers randomly selected using the Inventions Awareness Questionnaire (IAQ) developed by researcher. Simple percentages were used to analyse the data and the extent to which secondary school teachers are aware, and make use of pedagogical inventions in science education. Results show that 94.5% of the sampled respondents are not aware of recent teaching methods. It is recommended that teachers should be encouraged to read research reports in journals. They should engage in constant retraining exercises. The curriculum of teacher education must be subjected to constant review to capture current practices.

Key words: pedagogical, awareness, student centered, teacher centered

Creativity is a function of knowledge, curiosity, imagination and evaluation. The greater your knowledge base, and level of curiosity, the more ideas, patterns, and combinations you can achieve, which then correlates to creating new and innovative product and services (Burus, 2013). Creativity is the act of turning new imaginative ideas into

reality. Creativity is characterized by the ability to perceive the world in new ways to find hidden patterns, to make connections between seemingly unrelated phenomena (creativity at work .com/2014). Burus, (2013) opined that creativity has three aspects; discovery, invention and creation.

Functional education has been seen by Odagboyi, Sambo, Abimiku and Onche,(2014) as education that comes

from the child's construction of knowledge as he actively interacts with his environment. Its purpose is to develop the life of the mind that acts in the wholeness of organic life, with relation to practical life in the present and in the future. Asaju and Adagba, (2014) saw functional education as the kind of education that equips the recipient with the knowledge and skills needed for that performance of productive task. It is such that helps the society meet their required needs. Functional education is the process of training and instruction, designed to develop knowledge, insight, attitude, values and skills that are adapted to particular function or use in a nation's quest for development (Aigheyisi and Obhiosa, 2014).

Creativity has been demonstrated to be linked very strongly with knowledge and that the more knowledge one has, and the more curious he is, stand better chances of being creative. The implication of this understanding therefore is that the way students are taught in the secondary school is critical to their chances of being creative, or otherwise. In this regard, knowledge acquired by rote stands the least chance of being functional. Such knowledge may not be of relevance when it comes to real life situations, and as such will hardly encourage creativity. This could explain why youngsters lay claim to beautiful certificates and yet are unable to demonstrate applicable skills. No

wonder then that many certificated youths are unemployable.

We live in a dynamic world. Things and phenomena do not have any permanence as things keep changing as modern ways of doing things keep evolving. One such phenomenon that has witnessed a steady change is pedagogy (methodology of teaching). Learning is an active process in which meaning is accomplished on the basis of experience (Otuka & Uzoечи, 2009). The most effective way of enhancing learning is to allow the learner to interact with his environment. (Huit, 2003). Research reports have shown that cooperative mode of instruction benefits the learner most. As Adams, (2013) noted, classroom groups with supportive friendship patterns enhance academic learning, while interpersonally tense classrooms environment in which peer group rejection are strong and frequent, get in the way of learning.

There have been a lot of research efforts in the field of methodology. Some common methods of teaching reported in research include; cognitive conflict (Niaz, 1995), Concept mapping (Sambo, Odagboyi and Ibrahim, 2011) Jigsaw method (Aronson, 2000), structured text approach (Shaibu, 1998), Analogies (Lagoke, Oyebanji and Jegede, (1999), Scaffolding (Lipscomb, Swanon and West, 2004), Group instruction (Johnson, Johnson and Stanne, 2000) and many more. In spite of all these efforts, little has been seen in the practice of teaching in the field.

Odagboyi et.al. (2014) noted that 89% of teachers in the secondary schools are not even aware of these new teaching methods. In the same study, sampling 300 teachers from secondary schools, 91% of these teachers have not read any journal article.

There are a lot of works done at all levels of education; however, it is noteworthy that most of the research is concentrated on the secondary school tier of the educational system. With the yawning gap between where we are in the global practice of school instruction, and the most common practice in Nigeria, something deliberate must be put in place if the creative thinking that led to the inventions of these novel modes of instruction will reach the target group.

This paper is intended to find out if the teachers in the secondary schools are keeping pace with the developments that are taking place in pedagogical research that are proving successful in enhancing meaningful/functional learning.

Statement of the Problem

The secondary school curriculum has been designed in such a way that at the end of the training, recipients should be able to perform certain task. The most official method of evaluating the curriculum put in place is the terminal examination given by West African Examination Council (WAEC). It is expected that, after six years of the secondary education, students should

pass with credits the subjects they have sat for.

In spite of the fact that the secondary school tier of the education system is running, results at the WAEC – conducted exams continue to be poor. One wonders why. Could it be that the way teaching and learning process is undertaken in the schools is not at the acceptable level? Could there be a lack in the usage of appropriate methodology?

This paper focuses on the awareness of the secondary school teachers of the recent methods of teaching reported in research.

Research Questions

This paper sought to answer the following questions.

- i. Are teachers in the secondary schools aware of the recent teaching methods?
- ii. Do teachers in the secondary schools perceive themselves as utilizing the student centered learning?

Population

There are 326 secondary school teachers in Akwanga municipal which form the population for the study.

Sample

110 secondary school teachers were randomly selected for the study. They were administered the RAQ.

Instrumentation

One instrument was developed for this study. Research Awareness Questionnaire (RAQ). This is an open ended questionnaire requiring the respondents to list the methods of teaching they are used to. They were also to suggest if their teaching was student or teacher centered.

Procedure

The RAQ was administered to 110 respondents within Akwanga township schools. The questionnaires were responded to and collected immediately. A list of some modern methods like concept mapping, structured text approach, analogies, scaffolding, group instruction, jigsaw method, cognitive conflict are used to check the level of awareness of teachers. The instrument was used to test the level of awareness of secondary school teachers of new methods, get their perception of their modes, whether student or teacher centered.

Analysis of data

Simple percentages were used to analyse the data obtained from the RAQ

Results

Table 1. teachers' responses to 'in your view your teaching mode is (a) student centered (b) teacher centered.

Student centered	Teacher centered	Total
104	6	110
94.5%	5.5%	100%

Table 1 shows that of the 110 teachers sampled, 104 representing 94.5% perceived themselves to be using student centered methods of teaching, while 6 representing 5.5% perceived themselves to be using teacher centered methods of teaching. This implies that most teachers perceive to themselves that they are student centered in their teaching.

Table 2. Teacher Awareness of Modern Methods like Cognitive Conflict, Concept Mapping, Analogies, Structured text Approach and Scaffolding.

Aware	Not aware	Total
10	100	110
9%	91%	100%

Table 2 shows that 100 respondents representing 91% of the sampled teachers are not aware of

Accessibility of Secondary School Teachers to Pedagogical Inventions of Recent Times - Isaiah

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 respondents representing 9% are aware of modern teaching methods. This implies that a large number of teachers are not aware of modern teaching methods.

Discussion

The results of the study show that a vast majority of secondary school teachers are not even aware of the current methods that are making waves in the teaching enterprise. Of the 110 teachers sampled, the prevalent methods used in teaching, are the lecture and demonstration. Only a negligible few mentioned group method and it did not make the top of their list. The matter is not of the lack of these methods, but that the teachers that are meant to implement these methods need to be encouraged to use them. Even with this wide gap between the teachers' present state of ignorance of what currently obtains; it is saddening to note that these teachers perceive themselves that they are using student centered approach to teach. Any wonder then that the results in the WAEC examinations have continued to be poor. The non awareness of secondary school teachers of current method may not be that they lack capacity to employ them. However the issue is that of exposure. Many teachers are not exposed to the new things as they evolve. What the teachers are left with to use are the things they learnt while they were in school. The matter of in-service training must be taken seriously. Our teachers must be

encouraged to read journals. These journals contain beautiful aids that are useful for us.

Apart from encouraging teachers to read current editions of professional journals, some deliberate steps must be put in place. For instance colleges of education across the country, have demonstration schools. It will be a nice idea to create a link between research bodies and these demonstration schools. Once a new method is brought to light, they should be demonstrated in these schools. Education is expensive the government must be ready to make funds available to cater for the needs of education.

Recommendations

1. School curricula, especially those involving teacher training should be subject to constant review to reflect current changes in pedagogy.
2. Teachers should be encouraged to key in to current innovations by reading journals and professional articles.
3. Retraining of teachers in the field should be strongly engaged through further training, conferences and workshops to keep them abreast with current professional practices.

Conclusion

Creativity and knowledge acquisition are strongly related. The kind of knowledge that will enhance creativity is a functional type of

Accessibility of Secondary School Teachers to Pedagogical Inventions of Recent Times - Isaiah

~~Amedu Odagboyi, Ph.D.~~
 education. If this will be achieved, then the teaching in the secondary schools must depart from the current teacher centered teaching that currently obtain in the schools. A lot of human resources fill the schools awaiting development. Teaching has metamorphosed greatly in recent times. The teacher who used to be at the center of classroom activities is now meant to be a guide by the side. The learner takes the central stage of the learning activities. Most of the teaching that go on in our schools are largely teacher centered. This could be the reason why students cannot perform high order skills. In order to bring the desired change, teachers must be exposed to modern efficient methods of teaching.

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Accessibility of Secondary School Teachers to Pedagogical Inventions of Recent Times - Isaiah Amedu Odagboyi, Ph.D

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