

REFOCUSING SCIENCE TEACHER TRAINING FOR BETTER NATIONAL DEVELOPMENT

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Abstract

This paper highlighted theoretical considerations (hat stressed the importance of qualitative science teacher education. The paper also gave an insight on the major science teacher training procedures used in the process of science teacher training and identified their inadequacies. Suggestions are also made on the measures through which science teacher training can be appropriately focused for better national development.

Introduction

Nigerian educational curricula have undergone various changes with a view to achieving a sound national developed through education. Since the inception of independence, science and technical education have been enjoying preference because they are thought to be the channels through which the desired national advancement will be achieved as have been the case in more advanced countries of the world. Science education is considered to be an indispensable tool for national development as it is obvious that scientific and technical advancement has a direct relationship to socio-economic advancement.

The Nigerian efforts towards providing appropriate science and technical education includes the provision of science secondary school, teaching equipment, scholarship for students etc. However, it could be argued that the rate at which the required personnel capable of managing, creating, innovating and advancing the nation's science and technological sectors and the quality of the personnel produced are far beyond adequate when compared with the national growth in terms of population and the need to improve and provide basic amenities for living. As it could be agreed that no student can ever be better than his teacher, this paper highlights the importance of relevant science teacher education for National development.

Theoretical Considerations on Concepts of Relevant Science Teacher Education

Relevant science teacher education in Nigeria must be able to cater for the training demands of teachers in such terms that their desire of becoming qualified science teachers with the required methodology and adequate knowledge of science concepts to tackle national demand of better science education vested on them. NISTEP 1983, have identified the relevance of teacher training strategies to the quality of science teachers produced in Nigeria.

Addey (1992), posited that the possession of special qualities that influences an individual's capability to teach is more important than the sole possession of knowledge on the concepts to be taught. This stressed the importance of using special methods in the training of science teachers which is strongly emphasized in the philosophy of, integrated science teacher training In support of the above opinion Yadar (2002), also stressed that one good quality of a science teacher is high ability to modify teaching methodologies towards achieving specific and broad objectives. In another context Adeyemi (2004), observed that a good science teacher must be able to select and use the best teaching method at any point in time. This suggested that science teacher training must have the objectives of equipping science teachers with the necessary methods, knowledge and behaviors of accomplishing the specific and broad goals of science education.

Science Teacher Training the Condition in north - Western Nigeria

In a study to investigate the science teacher trailing strategies used in some colleges of education in north-western states of Nigeria, Suwaid (2006), observed that integrated science teacher trainers use methods like sole lecture, use of diagrams, teaching of sole concepts, and activities that do not involve sophisticated technology. On the other hand, it was observed that the teacher trainees training expectations were broader than the training strategies used by teacher trainees. Hence, when the data for teacher training strategies was correlated with those for trainee's teachings expectations a correlation of 08 was obtained. This indicates that there is a weak relationship between the training strategies used by teacher trainers and the training expectations of teacher trainees. It was observed that teacher trainers do not broaden other choice and use of science teacher training strategies. Beside violating the philosophy of NCE ISC, it was also observed that the objectives and expectations of trainees in the acquisition of science teacher training are not realised, this makes the aim of attending

such courses to be reduced to mere acquisition of certificates.

Recommendations

On the basis of the above observations the following recommendations are made to help in re-focusing science teacher training in Nigeria.

- 1) ISC teacher trainers should widen the scope of strategies used in teacher training so as to imbibe such versatility in science teachers.
- 2) ISC teacher trainers should device ways of knowing the motives and expectations of teacher trainees as when training reflects such motives the trainees will be motivated to learn more and knowledge and skills acquired will be retentive.
- 3) ISC teacher trainers should team to work with assistants such as laboratory technicians and experts from other relevant fields when there is need so as to provide trainees with relevant and adequate knowledge and skills.
- 4) Colleges of education should endeavor to admit manageable number of trainees so that trainers can confidently provide the require training.
- 5) Teacher trainers should consider the needs of primary and junior secondary school science education and refocus the objectives of science teacher training towards that for more relevance nationwide.

Conclusion

In conclusion it is conceived that refocusing science teacher training to cater for the needs and expectations of the nation and science teacher trainees will go a long way in motivating teacher trainees to acquire the necessary knowledge and skills that will enhance their ability to teach science and allied courses with the concepts and methods that are relevant in the production of science pupils with the good potentials for enhancing national development.

The irrelevance of science teacher training techniques to the expectation of teacher trainees have so far reduced teacher training into a mere paper qualification acquisition venture. Thus, for Nigeria to achieve the dream of being an advanced nation, emphasis must be laid on the production of high quality science teachers.

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