



# Integrating Instructional Technology into Teacher Education Curriculum in Nigeria

**\*<sup>1</sup>Abidoye J. A. (Ph.D), <sup>2</sup>Fatoki O. R.**

<sup>1</sup>Department of Educational Technology, Adeyemi College of Education, Ondo.

<sup>2</sup>Department of Educational Foundation and Counseling, Adeyemi College of Education, Ondo.

Email: <sup>2</sup>rasfatoki@yahoo.com

## ARTICLE INFO

Article No.: 111813969

Type: Research

DOI: 10.15580/GJER.2014.2.111813969

Submitted: 18/11/2013

Accepted: 15/04/2014

Published: 22/04/2014

### **\*Corresponding Author**

Abidoye J. A.

E-mail: doye10@yahoo.com

## ABSTRACT

The study determines the strategies for the integration of instructional technology into teacher education curriculum. Two research questions and two null hypotheses guided the conduct of the study. A sample of 250 lecturers were drawn from Adeyemi College of Education, Ondo. The data collected from the respondents through a questionnaire were analysed with mean rank order and t-test statistics. The result of the study shows that lecturers exhibit positive attitude towards the integration of instructional technology into teacher education curriculum. The study recommended that the curriculum planners should include the use of instructional technology in every level of teacher education in the country. The Federal Government should do every thing possible to link higher institutions in the country to the global telecommunication network (internet) to enable both teachers and students benefit from services provided by instructional media such as radio, television, internet, CD rom among others.

### **Keywords:**

Instructional technology, teacher education, curriculum

## INTRODUCTION

Teachers are crucial enablers in matter relating to educational development and curriculum renewal. This enabling role is not limited to what they are expected to do in the classroom. As the key education personnel in close touch with the learners and the immediate community, they can input useful information into educational decision-making. As persons ultimately responsible for promoting learning in schools, teachers can contribute in translating curriculum ideas into practicalities. More- over in the school and the classroom teachers are expected to select the right combination of activities, analyse curriculum content and decide on the feasible order and method of presentation and ensure that the objectives of a curriculum are achieved. Therefore, there is no way serious work on curriculum development can exclude teacher.

In recognition of the importance of teachers in curriculum development implementation in Nigeria, the FRN (2004: 39-40) stated clearly in section 6b under the goal of teacher education that;

- a) Teacher education shall produce highly motivated, conscientious and effective classroom teachers for all levels of our educational system.
- b) Teacher education shall continue to take cognizance of changes in methodology and in the curriculum. Teachers shall be regularly exposed to innovations in their profession.

The above goals therefore spell out government intention to produce teachers that can effectively and efficiently teach, also take into considerations new challenges in the profession. Thus, the National policy on Education also recognizes the importance of Information and Communication Technology (ICT) as such introduced into the school system. The effort is to keep teacher abreast with innovations in the society.

Due to the fact that the society is ever changing, the teacher is expected to live up to expectation at all time in the profession. All efforts must be made to mobilize every possible available resources to teach effectively to achieve the purpose of education in Nigeria. There is a gap somewhere which is to be filled by the Nigerian teachers. Bassey (2004) asserts that there has been general dissatisfaction among different groups of people in our society; parents, students government workers etc about the decreasing performances in our institutions of learning.

Furthermore, Paratton and Potashink (1997) indicated that teacher Education has been severally criticized on the grounds of quality and quantity. Education system in sub-Saharan African and the South Asia are still characterized by too few teachers, and for some subjects there are none at all. In terms of quality, experts Afemikha, (2004), Afe, (2002); Obayan (1999) have submitted that there is only a modest evidence of the effectiveness of the Nigerian teacher

education system. The curriculum has been criticized as often not well matched with students' own background and the culture of the society that the would-be-teachers are expected to operate. Fafunwa (1974) argued that teacher education continues to be the key to educational development in Nigeria, and elsewhere, for without adequately trained teachers, Nigeria cannot hope to expand her educational facilities. However, till date, the pre-service training and in-service professional development of teachers in Nigeria has not reflected the attention and, focus of Afemikhe (2004), Afe (2002) and Obanya (1999) these rate participants and observers of Nigerian education system. Jegede (2002) observed that the teacher training system in Nigeria has failed to adhere to the provisions of the National Policy on education (2004:40) "teacher education shall continue to take cognizance to changes in methodology and in the curriculum. Teachers shall be regularly exposed to innovations in their profession". Contributing to this issues, Okebukola (2002) opined that in time past the teacher as well as his/her education did enjoy some pride of place, but today, teacher education in Nigeria and indeed education in general in the last two decades had been characterized by incessant instability, not unconnected with attempt by practitioners in the field to better their lot. Taiwo in Afemikha (2004) added that teacher education has suffered some setbacks as greater emphasis have been laid on how to teach rather than on what to teach.

However, in order to achieve the goals of teacher education in Nigeria, appropriate training and retraining of teachers coupled with effective use of instructional technology are inevitable. Such training could enable teachers meet the challenges associated with current reform in the structure of the education system which include integrating instructional technologies in teaching and learning. The teaching profession in evolving from teacher-centred to student-centred interactive learning environment, therefore, teachers should be completely aware of the use of instructional technologies (Abidoye 2009).

Effective integration of instructional technology in teacher education programme in Nigeria involves developing appropriate skills in both the in-service and trainee teachers that will enable them to use ICT tools such as radio, television slides, projectors CD Rom, computers and other soft wares to improve their instructional delivery in the class (Abidoye 2007).

The teacher education institutions in Nigeria faces the challenge of preparing a new generation of teachers who can effectively use the new learning tools provided by instruction technologies in their teaching practice. Teacher education programmes require the acquisition of new resources, expertise and careful planning. This paper therefore, surveys the strategy for integrating and implementing instructional technologies into the curriculum of teacher education in Nigeria.

## Research Questions

This study was guided by the following research questions and hypotheses.

- 1) What are the strategies needed for integrating of instructional technology into the curriculum of teacher education?
- 2) What are the strategies needed for the implementation of the instructional technology programme into teacher education curriculum?

### Hypotheses of the Study

- 1) There is no significant difference in the mean perceptions of male and female lecturers as regard the strategies for the integration of instructional technology into teacher education curriculum.
- 2) There is no significant difference in the perceptions of male and female lecturers regarding the strategies for implementation of instructional technology into teacher education curriculum.

### METHODOLOGY

The study adopted a descriptive survey design, this design was chose because the study is intended to collect data that describes existing phenomena in order to answer questions about the current status on the integration of instructional technologies into teacher education programme. The population of the study comprised all the academic staff of the Adeyemi College of Education, Ondo. The sample population

consisted of 250 academic staff. Random sampling technique was used in drawing the sample of the study out of the sample population, 173 were males while 73 were females.

The instrument used for this study is questionnaire titled integration of instructional technologies into teacher education programme's questionnaire (IITTEQ). The instrument was designed by the researchers. It has two sections; A and B. Section A sought to ascertain information on strategies for integrating instructional technologies into teacher education programme; while section B dealt on information on the strategies for implementation of instructional technologies into teacher education programme.

The instrument was validated by experts in measurement and evaluation department of the college, who vetted the instrument in terms of adequacy, suitability and language structure. Their objective suggestions were incorporated in the final copy of the questionnaire. Copies of the questionnaire were administered and collected on face -to- face basis in order to secure 100% return rate. Data collected were analysed using mean, rank order and t-test statistics.

### PRESENTATION OF THE RESULT

#### Research Question 1:

What are the strategies needed for the integration of instructional technologies into the curriculum of teacher education?

**Table 1: Showing mean and rank score of the strategies for integration**

| S/N | STRATEGIES FOR INTEGRATION                                                   | MEAN  | RANK            |
|-----|------------------------------------------------------------------------------|-------|-----------------|
| 1.  | Government review of National as well as state educational policy.           | 3.48  | 5th             |
| 2.  | Plan the vision of instructional technologies in teacher education.          | 3.65  | 2 <sup>nd</sup> |
| 3.  | Teacher understanding of current event.                                      | 3.72  | 1 <sup>st</sup> |
| 4.  | Plan instructional technology professional development.                      | 3.34  | 6 <sup>th</sup> |
| 5.  | Create the mission statement.                                                | 3.23  | 7 <sup>th</sup> |
| 6.  | Educational planners should identify current level of teaching in existence. | 3.18  | 8 <sup>th</sup> |
| 7.  | Assess instructional technology data.                                        | 3.62  | 3 <sup>rd</sup> |
| 8.  | Communicate instructional technology integration with stakeholders.          | 3.56. | 4 <sup>th</sup> |

Table 1 above shows the strategies to be used for the integration of instructional technologies into teacher education programmes, the analysis of the study indicates that the eight strategies could be used. All

lecturers agreed that all the eight strategies are possible to be adopted for effective integration of instructional technology into teacher education programme.

**Table 2: Mean and rank score of the implementation strategies**

| S/N | STRATEGIES OF IMPLEMENTATION                                              | MEAN | RANK            |
|-----|---------------------------------------------------------------------------|------|-----------------|
| 1.  | Determine the scope of work done on instructional technology.             | 3.46 | 2 <sup>nd</sup> |
| 2.  | Development of goal and objectives.                                       | 3.34 | 3 <sup>rd</sup> |
| 3.  | Development of network infrastructure connectivity.                       | 3.88 | 1 <sup>st</sup> |
| 4.  | Evaluate students' instructional technologies performance results.        | 3.15 | 4 <sup>th</sup> |
| 5.  | Access present status of instructional technologies in teacher education. | 2.77 | 5 <sup>th</sup> |

Table 2 highlights the views of lecturers as regard the strategies of the implementation of instructional technologies into teacher education programme. 5 items were presented in the table and the lecturer agreed that all of them are possible strategies of implementation of instructional technologies into teacher education curriculum.

**Table 3: Shows t-test score on the integration of strategies according to gender**

| Group  | N   | X      | SD    | t-cal | t-critical | DF  | Result   |
|--------|-----|--------|-------|-------|------------|-----|----------|
| Male   | 173 | 126.64 | 12.00 | 0.3   | 1.86       | 248 | Not sig. |
| Female | 77  | 126.57 | 11.60 |       |            |     |          |

From the above table, it was revealed that the t-calculated (0.03) is less than the t-critical (1.86). Therefore the null hypothesis that says that there will be no significant difference in the mean perception of male and female lecturer as regards the strategies for integration of instructional technology into teacher education curriculum is accepted.

**Hypothesis 1:** There is no significant difference in the mean perception of male and female lecturers as regard the strategies for integration of instructional technology into teacher education curriculum.

**Hypothesis 2:** There is no significant difference in the perception of male and female lecturers regarding the strategies for the implementation of instructional technology into teacher education curriculum.

**Table 4: Shows the t-test score on the implementation strategies according to gender.**

| Group  | N   | X    | SD    | t-cal | t-critical | DF  | Result   |
|--------|-----|------|-------|-------|------------|-----|----------|
| Male   | 173 | 3.06 | 13.06 | 0.07  | 1.82       | 148 | Not sig. |
| Female | 77  | 2.78 | 12.02 |       |            |     |          |

Table 4 above shows that the t-calculated (0.07) is less than t-critical (1.82). Therefore, hypothesis 2 that states that there is no significant difference in the perception of male and female lecturers regarding the strategies for the implementation of instructional technology into teacher education curriculum is accepted.

## DISCUSSION OF RESULT

The findings of this study shows that the lecturers agreed to the need for the integration of instructional technology. This result is in line with Abidoeye (2007) who argued that the use of instructional technology especially the use of radio, television, internet and other social media can enhance effective teaching and learning of the school subject. In the same vein, Nwiyi (2007) advised that teacher education process must make adequate provision of individualized instructional technology training for both the pre-service and in-service teachers in Nigerian schools. The result of this study also indicates that there is no significant difference in the mean perception of male and female lecturers as regards the strategies for the integration of instructional technology into teacher education.

The finding of this study is also in agreement with Adedoja and Abidoeye (2009) that argue that gender differences has not significant effect in the level of utilization of internet facilities in teaching and learning process.

## CONCLUSION AND RECOMMENDATION

The outcome of this study suggests that there is an urgent need for implementation of the Federal government policy statement on the provision of necessary infrastructure and training for the integration of instructional technology in the school system.

In fact, in the present era of technology revolution, teacher education is inconceivable without a solid instructional technology base, such a base emanates from an ICT teacher education system. It is this type of education that can launch the country into the new Millennium Development Goals (MDGS).

In view of the finding of this study, the following recommendations were made.

- (i) Curriculum planners should carefully and meaningful include comprehensive ICT programme in every level of teacher education in the country.
- (ii) The instructional technology skills should be incorporated into the training programme of all categories of teachers.
- (iii) Government at all levels should periodically organize sensitization workshop or awareness campaigns in the importance of the use of instructional technology in teacher education programme.
- (iv) Both the Federal and State government should establish ICT centres in all the Nigerian schools to provide both the teachers and their students with relevant ICT skills.

- (v) The Federal Government should do everything possible to link higher institutions in the country to the global telecommunication network (internet) to enable lecturers and their students benefit from research collaboration, video conferencing, resource sharing and distance learning etc.
- (vi) The required ICT infrastructure should be provided in schools through the collaboration of the communities, government, companies and individuals. This should be backed with steady supply of electricity in schools.

## REFERENCES

- Abidoye, J.A. (2009) Enhancing quality assurance in distance learning education through utilization of media technology. *Abeokuta School of Education Journal*. 1 (1): 86-91
- Abidoye, J. A. (2007) Information and Communication Technology and Citizenship Development in Nigerian, *Nigeria Journal of Citizenship Education*, 5 (1): 38-45.
- Adedoja and Abidoye (2009). Level of Utilization of Internet Service among undergraduate. A case study of Adeyemi College of Education, ONdo. *Journal of Science and Technical Education*. Vol 1 No 1 pp 42-48.
- Afe, J. O. (2002). Reflection on becoming a Teacher and the Challenges of Teacher Education. Inaugural Lecture Series 64. Benin, University of Benin. Pp. 6.
- Afemikhe, O. A. (2004). Quality Assurance in Teacher Education in Nigeria, in O. A. Afemikhe and G. Adewale (eds) *Issues in Educational Measurement and Evaluation in Nigeria*: Institute of Education. Pp. 8.
- Bassey, G.S. (2004) *Principle and Practice of Instructional Communication* Uyo Durand Publisher.
- Fafunwa, A.B. (1974) *History of Education in Nigeria*. London: Hilen & Union
- Federal Republic of Nigeria (2004). *National Policy on Education* (4th Edition). Lagos NERDS, Press.
- Iheonunekwu, S, Umebali, G. and Okunamiri, P. O. (2010) Integration of Information and Communication Technologies (ICTs) into Teacher Education Programme. *Journal of Media and Technology*. Vol. 14 No 1. Pp. 61-67.
- Ilegede, O.J. (2002) A celebration of Teacher Education and open and Distance Learning in Nigeria, attainment, challenges and strategies in Teacher Education in Nigeria, past, present and future, Kaduna; NTI, Pp27
- Nwiyi, G. D. (2007). Teacher Education in Nigeria: Challenges for the 21st Century. *A Journal of Today's Education*. Vol. 10 No. 3.
- Obanya, PAI (1999). The Delimma of Education in Africa. Ibadan, Heinemann. Al notes 2 (2) Pp22
- Peratton, H and Potashnik (1997) Teacher Education at a Distance Education and Technology, Technical notes (2) pp 22
- Uju, U. (2010). Integrating Information Communication Technology (ICT) into Teacher Education Curriculum in Nigeria. *Journal of Teacher Education and Teaching* Vol. 8 No 2 Pp. 247-253.