

RESEARCH BASED ON PRODUCTION OF SOFTWARE DEVICE ON TEACHING SKILLS ACQUISITION FOR BASIC SCHOOL TEACHERS IN KADUNA STATE, NIGERIA

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Production of software teaching skills was put together to enhance teachers effectiveness and professional development. The package contains components of teaching skills which are ten (10) major problems identified through research with basic school teachers namely: set induction, motivation, chalkboard usage, use instructional material, class control skills, reinforcement skill, stimulus variation skill, questioning skill, explanation skill and closure skill. Verma (2003), theoretical model method of demonstrating good teaching skills was adopted for adjusting the terms to overcome the problem of classroom instruction. The systematic analyses undertaken came up with some enhancement skills package as a way forward. The ultimate goal is to provide empirically based research input (Teaching skills) that could be of immense benefit to the Nigerian teachers, particularly, teachers teaching at basic level of education

Preamble

To teach is to facilitate learners to acquire knowledge, skills, attitude, norms and values in preparation for useful living. Unless teachers exhibit professional teaching skills, no meaningful learning could take place. Thus, competence in teaching skills assumes great importance for teachers to perform their job effectively, as it directly affects the learning foundation and level of progress of learners particularly at basic school level.

The Kaduna State Teacher Competencies Examination (2017) revealed that some teachers find it difficult to differentiate between class instruction and teaching skills. This has resulted to cases of poor literacy and numeracy acquisition among pupils, lack of ability to communicate effectively, poor manipulation of skills for self-reliance resulting to many children becoming disinterested in learning and increasing dropout rate due to large number of those teachers already teaching at Universal Basic Education level. However, the teacher competence test could be subjected to lack of practical approach to teaching skill test. For the teachers to display their capability in classroom instruction. Ironically, most of these teachers are trained in various colleges of education and institutions of teacher education programme in Nigeria. One almost impossible task is uprooting these crops of teachers from classroom completely because of their large number. However, the problem could be tackled and reduced to the bearest minimum by identifying teacher teaching skills errors or deficiency and improving on them.

In an attempt to solve the problem, the researchers innovated multimedia education software device which contains components of audio-visual teaching skills activities that can be used to enhance, acquisition of teaching skills which the in-service teacher lack. This research is aimed at producing teaching skills software device for the use of every Nigerian teacher for the purposes of enhancing teaching skills and competency in the teaching profession. The teaching skills software device is multipurpose which comprises flash, films ware, slide, DVD, C/D ROM, Memory card, internet, that can also complement classroom instruction to self-skill learning development concept. To buttress this, UNESCO (2014) asserts that multimedia technology influence in form of audio-visual display has permeated

every aspect of human life endeavour, challenge the boundaries of conventional teaching and learning system (involving the teacher, chalkboard and students in the classroom for the purpose of class instruction).

Statement of the Problem

Federal Government of Nigeria (2008) demands that teachers must be professionally trained and the minimum qualification to teach at Basic School shall be Nigeria Certificate in Education (NCE). But the comments and records of the Inspectorate Division of Ministry of Education in Kaunda State, have observed over the last two decades that some teachers poor performance in all areas of classroom instructional have been in lesson delivery (Kaduna State Universal Education, 2014).

Objectives of the Study

The main objectives of the study are to:

- i. identify teachers teaching skills deficiency;
- ii. determine the extent to which teaching skills can be acquired with the use of teaching skill software devices; and
- iii. ascertain the extent to which the product device can be within the reach of the classroom teachers.

Research Questions

The following research question were postulated to guide the research;

- i. Can teachers teaching skills deficiency be identified?
- ii. Can teaching skills be acquired with the use of teaching skill software device?
- iii. Can the produced software devices be within the reach of the classroom teachers?

A descriptive survey that covered three senatorial zone of Kaduna state was employed to reach the targeted population. The population of the study consisted all the science teachers in model primary schools in Kaduna state, lower basic education level totaling 3,500 (Source: State Universal Basic Education, Kaduna State, 2014). The simple random sampling technique using hat and pick method was adopted to select a sample of 350 teachers represented 10% of the target population. The team of researchers served as assessors using teaching skill assessment score which was developed by the research team. The sample teachers were observed teaching at their various schools and classes. The duration of the exercise lasted for six weeks. The study discovered that:-

The ten (10) major teaching skills problems observed by the team of researchers with teachers of Basic School in the study area are:-

- i. Set Induction Skill: Is simply the introductory step or beginning step of a lesson. It is a teacher's device to open the room of knowledge.
- ii. Motivation Skill: This skill is being used as an encouragement that aims at eliciting a behavior. In other words, it is an encouragement given to assists and propel a student to come with a positive response.

- iii. Chalkboard Usage skill:- Effective application of the use of skill of chalkboard is a real asset in class teaching as it serves to make direct appeal to a child's senses and strengthens his retention.
- iv. Use of Instructional Material Skill:- Instructional materials are teaching materials which are expected to help the teacher in interpreting ideas and make understanding not only easier but retentive and effective.
- v. Class Control Skill:- It has to do with the teacher employing effective techniques towards redirecting or refocusing the attention of a learner who has been distracted by an unrelated element in lesson.
- vi. Reinforcement Skill:- Any form of encouragement that a teacher gives to the students with a view to increase the rate of positive responses and subsequent participation in lesson.
- vii. Stimulus Variation Skill:- Any purposeful action that is introduced by the teacher into the classroom consciously to keep students awake, alert and attentive. In other words to change the environment in such a manner that pupils are stimulated to learn.
- viii. Questioning Skill:- Are statements which require response from both the teacher and the learner. The response is expected to carry learners further knowledge and deeper understanding.
- ix. Explanation Skill:- The skill that provide details information for immediate understanding of an issue or phenomena in the teaching and learning process.
- x. Closure Skill: - The skill a teacher employ to focus students attention on the completion of a specific sub-task, lesson or unit of instruction. A good closure have the potential of identifying major points which led to the accomplishment of the designed objectives.

Assessment of Teachers Teaching Skills at Basic School

S/N.	N	Appropriate	Fair	Poor	
1.	Set induction skill	350	44 (12%)	76 (22%)	230 (66%)
2.	Motivation skill	350	90 (26%)	70 (20%)	190 (54%)
3.	Chalkboard usage skill	350	86 (25%)	60 (17%)	204 (58%)
4.	Use of instructional materials skill	350	52 (15%)	88 (25%)	210 (60%)
5.	Class control skill	350	46 (13%)	64 (18%)	240 (60%)
6.	Reinforcement skill	350	50 (14%)	80 (23%)	220 (63%)
7.	Stimulus variation skill	350	46 (13%)	44 (12%)	260 (75%)
8.	Questioning skill	350	66 (19%)	82 (23%)	202 (58%)
9.	Explanation skill	350	66 (19%)	76 (22%)	208 (59%)
10.	Closure skill	350	32 (9%)	84 (24%)	234 (67%)

Source: Researcher Field Work, 2016.

From the table above under set induction, out of 350 participants 44 which represent 12% were appropriate, 76 participants representing 22% were fair and 230 participant representing 66% were incompetent. Out of the 350 participant with motivation skill, 90

represent 26% were appropriate, 70 represent 20% were fair while 190 representing 54% were incompetent.

In the assessment of teachers with the skill of chalk board usage, 86 participants representing 25% were appropriate, 60 participants were fair and 204 participant represent 58% were incompetent. The participants displayed the skill of use of instructional materials, thus: 52 representing 15% were appropriate, 88 (25%) were fair while 210 representing by 60% were incompetent.

Under the class control skill, 46 participants or 13% were appropriate and 64 (18%) were fair while 240 representing 60% were incompetent. Out of 350 participants that displayed reinforcement skill, 50 (14%) were appropriate, 80 (23%) were fair while 220 representing 63% were poor. Out of the 350 participants under the skill of stimulus variation, 46 representing 13% were appropriate, 44 participants (12%) were fair while 260 representing 75% were incompetent.

The skill of questioning shows that, 66 participants were appropriate and 82 representing 23% were fair while 202 participants were incompetent. In the skill of explanation, 66 participants representing 19% were appropriate, 76 were fair while 208 representing 59% were poor.

Finally, in the use of closure skill, 32 participants representing 9% were appropriate, 84 participants were fair while 234 representing 67% were incompetent. It is pertinent to note that, an overwhelming majority of the teachers had NCE and others with B.Ed. Despite the exponential rise in the number of teachers with various certificates it was observed that some were incompetent to display teaching skills in lesson delivery.

Each of these skills of teaching is an important ingredient towards ensuring efficiency in lesson delivery. The deficiency of some skills among teachers of Basic School level could not permit effect lesson delivery. Government intervention and Contributions Colleges of Education as well as other Teachers Training Institutes (NTI and others) were in line with the Sustainable Development Programme of the United Nation (UN) towards its programme for school teachers such were in the form of workshops which had recorded little or no success at improving teachers' skills acquisition in teaching and learning process. For a decade some factors such as inconsistency of government policy in education, dilapidated and shortage of infrastructure and facilities, poor incentive to teachers, shortage of instructional materials and others did not permit the conversion of much of their contribution to visible improvement in the teachers' performance.

In formal context, considering that teachers in college of education and other teacher training institutions spend between three (3) years for NCE programme and three (3) to four (4) year pursuing a B.Ed qualification. Mills (2007) sees teaching skills as a scale down realistic classroom training context in which teachers, both experienced and inexperienced, may acquire new teaching skills and refine old ones. This informal teaching skills acquisition complements the formal microteaching theory and practicum in such a way that the teaching skills are broken down. Thus, reducing the difficulties in acquiring the skills as well as in the socialization process. Mills, Hertel & Noyd, (2002) opinion that pedagogical skill for teaching can be acquired through more structured and cheaper faculty training techniques.

Field Action

Part III segment of the study requires Basic School teachers' mastery of teaching skills using the software. The software is an integrated training package where various skills are demonstrated for beginning teachers as well as in-service teachers to practise, acquire master and to adjust themselves where necessary.

- Teachers are expected to choose from the demonstrated skills under review and practice so as to improve their teaching skills.
- Over a long period of time of viewing the software, the research traced impact revealed significant growth in the effect of each component skill identified as teaching problem on teachers.
- More importantly, the materials obtained and improvised in the production of the software were locally procured. This means that the software could be within the reach of classroom teachers in Nigeria.

Research Impact

The teachers were observed and reflected the following:-

- i. Change in situational context in teaching
- ii. New goals were identified by teachers
- iii. Adjustment on teaching skill exhibition
- iv. Teachers effectiveness and improvement in teachers performance.
- v. There is room for new actions towards further improvement in teaching skills.

Conclusion

Teaching skills problem with proven sincerity of supervision could be traced and identified. Hence, research of this magnitude using progress in ability of teachers to adjust, connect and improve in their teaching skills quality. Therefore, both pre-service and in-service teachers should be encourage to view the software, practice several times until perfection is attained. This is believed that production of the software in mass will enhance quality of teacher education in Nigeria.

Recommendations

- i. There is need to integrate technological package in teacher education programme
- ii. Teachers are adviced to embrace technological revolution to enhance their teaching skills.
- iii. Government should endeavour to permit and encourage teachers to attain professional development programme such as workshops, seminars and conferences.
- iv. There is need for government intervention toward financial assistance to produce the software in masses for teachers consumption.
- v. Colleges of education are adviced to improve evaluating mechanism of teachers in training teaching skills performance to enhance production of quality teachers in Nigeria.

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