

Assessing the Impact of Teaching Methods in Higher Education Institutions in Sierra Leone

Foday Pinka Sankoh

Department of Curriculum and Teaching, Ernest Bai Koroma University of Science and Technology, Port Loko Campus, Sierra Leone

Abstract

The aim of this study was to assess the impact of various teaching methods used in higher education institutions in Sierra Leone. Three hundred and fifty (350) questionnaires were administered to students of six (6) higher education institutions. Most of the students rated lecture method as the most suitable and best teaching method in higher education institutions. Reasons include: it enables the lecturer to make constant and conscious effort to become aware of student problems and engage the students to give verbal feedback, it arouse interest in a subject provided the lecturer has effective writing and speaking skills, it is an efficient means of giving a vast amount of knowledge in a limited amount of time etc. The project/assignment and brainstorming methods were rated as the second best and interesting method of teaching. For project method, it offers opportunity for creative ability and develop leadership and organizing abilities. For brainstorming method, creative thinking is developed, everyone gets the chance to express their thoughts and encourages more students' participation. Efforts should be made to choose adequate and appropriate methods in line with the curriculum learning outcomes.

Key Words

Teaching method, Problem solving, Curriculum outcome, student-centred, teacher-centred

1. Introduction

A teaching method comprises the general principles, pedagogy and management strategies used by teachers to enable student learning. These strategies are determined partly on subject matter to be taught and partly by the nature of the learner. For a particular teaching method to be appropriate and efficient it has to be in relation with the characteristics of the learner and the type of learning it is supposed to bring about. Suggestions are there to design and selection of teaching methods must take into account not only the nature of the subject matter but also how students learn (Westwood, 2008). Teaching methods are an important aspect of teaching and learning: determine the activities of teachers and students, the quality of the teaching process, implicitly sending a message about what teaching is, how children learn, what knowledge is.

The evolution of teaching methods can be traced as far back as ancient education times. About 3000 BC, with the advent of writing, education became more conscious or self-reflecting, with specialized occupations such as scribe and astronomer requiring particular skills and knowledge. Philosophy in ancient Greece led to questions of educational method entering national discourse (Asbaugh, 1998). In his literary work, *The Republic*, Plato described a system of instruction that he felt would lead to an ideal state called the Socratic method, a form of inquiry and debate intended to stimulate critical thinking and illuminate ideas. It has been the intent of many

educators since, such as the Roman educator Quintilian, to find specific, interesting ways to encourage students to use their intelligence and to help them to learn. Then came the medieval education.

Comenius, in Bohemia, wanted all children to learn. In his *The World in Pictures*, he created an illustrated textbook of things children would be familiar with in everyday life and used it to teach children.

The nineteenth century saw the Prussian system of mandatory education. Parts of the Prussian education system have served as models for the education systems in a number of other countries, including Japan and the United States. The Prussian model required classroom management skills to be incorporated into the teaching process (Gatto, 2001). The University of Oxford and the University of Cambridge in England developed their distinctive method of teaching, the tutorial system, in the 19th century (Mills & Alexander, 2013). This involves very small groups, from one to three students, meeting on a regular basis with tutors (originally college fellows, and now also doctoral students and post-docs) to discuss and debate pre-prepared work (either essays or problems) (Bonetti, 2018). This is the central teaching method of these universities in both arts and science subjects (Penny, 2001) and has been compared to the Socratic Method (Williams, 2007). The twentieth century saw newer teaching methods which incorporate television, radio, internet, multi-media, and other modern devices.

Teaching methods entail different ways of organizing and implementing academic activities, as well as different roles for instructors, lecturers and students. The role and tasks that instructors and lecturers must perform when they use a presentation style are different to those required when they plan an activity around case studies. Similarly, the degree of student participation, and the work that students will be asked to carry out vary according to the teaching method applied by the instructor or lecturer. Thus, the decision-making as regards the methods to be used in the teaching-learning process does not end when a particular method is chosen. In order to achieve a methodological change (a paradigm change in the teaching-learning process) essential to specify the tasks that students must perform, students should be the protagonists of their own learning process. Teaching methods are an important aspect of teaching and learning: determine the activities of teachers and students, the quality of the teaching process, implicitly sending a message about what teaching is, how children learn, what knowledge is. In accordance with contemporary conceptions of teaching, the function of teaching methods and their impact on the quality of teaching can be achieved only in a specific context. Analysis on the method of application of teaching methods in the context of the teaching process can lead to a deeper understanding of the quality of students' knowledge, the work of teachers, etc. and understanding of the educational function of the method in the present context.

The approaches for teaching can be broadly classified into teacher centered and student centered. In a teacher-centered approach to learning, teachers are the main authority figure in this model. Students are viewed as "empty vessels" whose primary role is to passively receive information (via lectures and direct instruction) with an end goal of testing and assessment. It is the primary role of teachers to pass knowledge and information onto their students. In this model, teaching and assessment are viewed as two separate entities. In Student-Centered Approach to Learning, while teachers are the authority figure in this model, teachers and students play an equally active role in the learning process. The teacher's primary role is to coach and facilitate student learning and overall comprehension of material. Commonly used teaching methods may include demonstration, discussion, role model, assignment etc. or combinations of these.

The most basic teaching method is explanation. Explanation is characterized by its function as a tool that is used by a speaker for understanding or 'giving a sense' to the object of communication, of a debate, or a discussion (Jasmina et al 2015). The role of an explanation is to make clearer the meaning of an object (method, term, assignment) maintaining formally the necessary distance between the object of the action or study and the tools. In the learning/teaching process, explanation is a tool used by both, teacher and students. Its goal is to manifest

comprehension. Traditionally, explanation belongs to monological teaching methods where the information is transmitted from the teacher to the students (together with example, narrative, description or lecture). In this perspective, explanation is seen as the task fulfilled by the teacher with students passively receiving what is presented. Collecting feedback on students' perceptions of whether explanations are clearly identified whether students feel particular teaching assisted them in understanding the subject matter. Without student understanding, no explanation can be said to be clear. In the context of education, good explanation in teaching is essential for unlocking the students' understanding of the subject. It develops students' logical thinking and provides guidance in explaining concepts, procedures, events, ideas and classes of problems in order to help students understand, learn and use information in a flexible way. From a learning perspective, explanation holds a special place as one of the core critical thinking skills (Facione 2010). Good critical thinkers, according to Facione (2000), are those who can explain what they think and how they arrived at that judgment.

2. Body Text

A questionnaire guide was prepared which allowed a direct door stepping questionnaire administration. This method enhanced the rate of return since the questionnaires were delivered directly by hand to the respondents and taken back immediately on completion. Using this method three hundred and fifty (350) questionnaires were administered to six (6) higher education institutions. At the end of the exercise, a total of three hundred (300) questionnaires were returned, an equivalent to 85.7% response rate. Besides ensuring a rather high return rate, direct door stepping questionnaire administration strategy also ensured effective completion of questionnaires by respondents as the author was at hand to provide guidance. As a result all three hundred (300) questionnaires returned were effectively completed. The questionnaires were collated and analysed using a 5-point Linkert scale where 1 – being the least interesting and 5 being the most interesting teaching method. The data were analysed using descriptive statistics to establish variations on the impact of various teaching methods in higher education institutions.

3. Results And Discussion

I Table 1 Rating of Various Teaching Methods:

Rating was done on a 5 point Linkert Scale of 1-5, where 1 – being the least interesting and 5 being the most interesting teaching method as indicated in table 1.

Teaching Methods	1		2		3		4		5		Total
	N	%	N	%	N	%	N	%	N	%	
Lecturing	30	10	30	10	26	9	60	20	154	51	300
Discussion	25	8	30	10	50	17	50	17	145	48	300
Demonstration	44	15	40	13	43	14	50	17	123	41	300
Discovery	34	11	50	17	68	23	54	18	94	31	300
Project/ Assignment	30	10	40	13	40	13	40	13	150	50	300
Field Trip	37	12	55	18	70	23	40	13	98	33	300
Individualised Instruction	65	22	65	22	58	19	68	23	44	15	300
Role Play	55	18	54	18	77	26	80	27	34	11	300
Brainstorming	14	5	42	14	13	4	25	8	150	50	300
Case study	57	19	67	22	68	23	66	22	42	14	300
Computer Assisted Instructions (CAI)	71	24	73	24	68	23	68	23	20	7	300

The analysis shown on table 1 revealed that lecturing (51.3%), discussion (48.3%), demonstration (41%), project/assignment (50 %), and brainstorming (50 %) teaching methods were deemed as the most suitable and

best teaching methods in higher education institutions. The selection of these teaching methods indicates that lecturers prefer to be active in the teaching process when imparting new knowledge that they are keen to co-shape the teaching process, keen to share their own experiences, keen to refresh the already learnt subjects and develop their ability for independent information processing and problem-solving. Lecturers of HEIs never or rarely use computer assisted instruction (CAI) (6.7%) in their teaching.

II Reasons for rating various teaching methods as suitable and best teaching methods:

1. The Lecture Method

This is a teacher-dominated approach to teaching, hence it is termed a didactic method. Verbal presentation of ideas, concepts, generalization and facts are used. The lecturer will do most of the work by talking while students are just passive or slightly involved by taking down notes and asking few or no questions. This method is the acceptable means of imparting information in the universities and other institutions of higher learning. Even though this method is cheap to operate as no special apparatus is needed, it makes fewer demands on the lecturer's time for planning and preparing, and is therefore an attractive and easy method of teaching for large classes in higher education institutions. In this method, students are passive learners, the desired learning outcomes may not be accomplished, and encourages rote learning.

2. The Discussion Method

This method is based on the philosophy that knowledge arises within the students and not from any external source. The students take over the subject from various points of view and the lecturer serves as moderator. Discussion method maintains a high degree of mental alertness to develop clear understanding, maintains interest and feeling of confidence in free expression, leads to positive attitudinal change because a student may find his or her own values and beliefs challenged by the views of fellow students and among others. This method wastes a lot of time and even allow other students not to participate. Important guidelines to this method include, not allowing some students to dominate the topic under discussion, avoiding vague questions and ensuring that anyone who leads the discussion has the ability to break down the whole topic into units.

3. The demonstration method

In this method, the lecturer will do a display or exhibition of the learning outcome while students watch. The students are shown the correct use of apparatus to illustrate a technique during a practice lessons. Demonstration method can be performed by students either individually or in groups. This method is not cost effective and facilitate learning by giving students the opportunity to see and hear what is actually happening. However, visibility of details of what is being demonstrated is not assured in large classrooms or in circumstances where extremely small objects are used.

4. The Discovery method

Discovery method is a teaching strategy which enables students to find the answers themselves. It is a learner centred approach, hence it is called a heuristic method. This method makes the student an active participant rather than a mere passive recipient. The joy in this method provides the students with intrinsic motivation. However, it is time consuming and progress is comparatively slow.

5. The Field Trip method

This method involves taking learners on an excursion outside the classroom for the purpose of making relevant observation. Field trip as a method of teaching allows the students to engage fully in the activities of the study. An improperly planned and organised field trip will become a waste of time and resources and takes away from valuable learning activities.

6. The Individualised Instructional method

This method is a programmed instruction in which the learning programmes are presented in carefully structured steps which depend on the individual student and the nature of materials to be learned. It allows the student to participate at his own pace. However it is time consuming and requires very little or no interaction among the students.

7. The Role play method

This is a teaching method that allows students to immediately apply content as they are put in the role of a learning activity. It is easy to learn and encourages creative thinking. In larger classes, role playing cannot be done effectively because not all of the students have the option to participate. Many role playing scenarios use only two or three individuals in a situation, so the rest of the students just have to watch. This will cause them to become disinterested and stop paying attention. In larger classes, role playing cannot be done effectively because not all of the students have the option to participate. Many role playing scenarios use only two or three individuals in a situation, so the rest of the students just have to watch. This will cause them to become disinterested and stop paying attention.

8. The Brainstorming method

Brainstorming is a large or small group activity that encourages students to focus on a topic and contribute to the free flow of ideas. The lecturer may begin a brainstorming session by posing a question or a problem, or by introducing a topic. Students then express possible answers, relevant words and ideas. As setbacks, the method can take too much time if the group is not properly controlled and is allowed to run for too long. In addition, the method raises expectations of the brainstorming group by considering ideas that will never be implemented.

9. Case study method

The case study method is a learning technique in which the student is faced with a particular problem, the case. The case study method is a participatory, discussion-based way of learning where students gain skills in critical thinking, communication, and group dynamics. It is a type of problem-based learning. Students can work through a case during class as a whole or in small groups. Case study method encourages imitation rather than inspiration.

10. The computer-assisted instruction method

Computer-assisted instruction (CAI) is an interactive instructional technique whereby a computer is used to present the instructional material and monitor the learning that takes place. CAI uses a combination of text, graphics, sound and video in enhancing the learning process. CAI provide learning objectives, learning resources, record keeping, progress tracking, and assessment of learner performance. A feeling of overwhelmed by the information and resources available, learning being too mechanical and lack of infrastructure are some of the setbacks of this method of teaching.

From the foregoing it would be realised that every teaching method has its advantages and disadvantages. Each of these teaching methods has a part to play in the promotion of effective transmission of knowledge by lecturers and assimilation of the same by students. The choice of a teaching method to be used in the classroom encounter depends on many factors. Research has shown many factors could determine the method a teacher would choose in teaching his lesson. Afolabi (2010) categorized and reported the strength of these factors into four main categories as subject-matter criteria, environment criteria, teacher related factors and learner related factors.

Conclusion

Methods are ways of doing things. In any human endeavour where results are expected, there must be ways of attaining the goals. The various educational goals (or curriculum outcomes) have resulted in the adoption of various methods in dissemination of knowledge in class settings. For effective teaching-learning of any subject, a variety of methods need to be brought to play. This is essential because no method in itself is completely adequate or comprehensive. In the study of teaching methods what is most important is the ability of the teacher to know the steps that are involved in a particular teaching method. In general a good teaching method should be unique in terms of content, level, student skills and learning styles, teacher skills and teaching styles, and many other factors. To maximize student learning, a lecturer must find out what works best in a particular situation. Lecturers have their strengths and weaknesses, and should adopt particular models to complement strengths and contradict weaknesses. The lecturer should be well aware of the type of knowledge to be constructed. At other times, lecturers should use varied teaching methods to challenge students to construct new meanings and knowledge.

References

1. Afolabi, S.S & Adesope A.O. (2010). *General Principles, Methods and Strategies of Teaching. (A Basic Text for Colleges and Universities)*. Ibadan. Everlasting Publishers Kim, C.E. and Kellough, D.R. (1978). *A Resource Guide for Secondary School Teaching Planning for Competence*. New York: Macmillan.
2. Asbaugh A. F (1988). *Plato's Theory of Explanation: A Study of the Cosmological Account in the Timaeus*. USA: State University of New York Press.
3. Bonetti, Lisa (2018). "How will I be taught?". *Undergraduate.study.cam.ac.uk*. University of Cambridge.
4. Facione, P. A. (2010). *Critical Thinking: What It Is and Why It Counts*, USA: Insight Assessment.
5. Facione, P. A. (2000). *The Disposition Toward critical thinking Character, Measurement, and Relationship to critical thinking skills*, *Informal logic*, 20, 61-84
5. Gatto, J. T. (2001). *A Different Kind of Teacher: Solving the Crisis of American Schooling*. Berkeley Hills Books. ISBN 978-1-893163-21-8.
6. Jasmina S., Barbara R., Iva K., (2015). *The significance of teaching methods/forms and organizational forms as important elements for the professional development in the education and training of managers involved in tourism Information*. 48, 1-2, 48-61 ISSN 1330-0067 Coden: IORME7
7. Mills, D. and Alexander, P. (2013). *Small group teaching: a toolkit for learning*. York: The Higher Education Academy.
8. Penny P. S. (2001). "Engineering the Tutorial Experience". In Palfreyman, David (Ed.). *The Oxford Tutorial: Thanks, You Taught Me How to Think* (PDF). Oxford Centre for Higher Education Policy Studies. ISBN 978-1099191343. Yet in spite of the provision of lectures and practicals by the University departments, the tutorial retains a central position in the teaching of Oxford sciences.
9. Williams, G. (2007). "Socrates in Stellenbosch and Tutorials in Oxford." Paper presented at the Tutorial Education: History, Pedagogy, and Evolution conference, Lawrence University, Appleton, WI, 31 March – 1 April 2007.
10. Westwood, P. (2008). *What teachers need to know about teaching methods*. Camberwell, Vic, ACER Press.