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Stimulants and Simulation: The Complementary Role of ICT For Effective Instruction in Arts Subjects in Nigeria

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ABSTRACT

The primary responsibility of the teacher is to ensure effective delivery of the goals of instruction. He is thus at liberty to adopt any style of instruction to achieve his targeted objective. Arts subjects like history, religion, English language, literature, etc. have suffered instructional poverty due to the continuous use of the traditional didactic method (lecturing discussion, story-telling, etc.) with little or no practicability. Simulation method of teaching offers new insights to the teaching and learning of these seemingly abstract subjects especially with the integration of ICT.

INTRODUCTION

Simulation method is a technique that is being adopted today in order to promote delivery skills by instructors to the learners. The arts subjects like history, religion, the languages, literature, etc. are suffering tremendously from poor delivery tactics usually employed by teachers. This is largely attributed to the fact that most of the teachers hardly take their students to the laboratories to practicalize their instruction where the laboratories are even available. In most instances, what is obtainable in Nigerian tertiary institutions is that the authorities rarely provide laboratories for arts subjects because of the erroneous emphasis for practical's in the Sciences alone. In the process, the subjects in the arts suffer which is why society indirectly encourages the teacher to continue to cling to the traditional didactic method of instruction in these disciplines under the guise of paucity of resources to acquire materials for practical instruction in the classroom.

For the purpose of this article, emphasis shall be placed on history and religion as subjects which require frequent use of simulation technique to deliver instructional objectives for the best interest of the learner. The rationale for this stems from the fact that most items in the curriculum of these subjects consist of events which occurred at the time the learners were not there and therefore in line with what Kyle & Murray (2008) referred to as removing mystery and abstractness from the curriculum, would require the use of simulation and ICT to enhance instruction. ICT and simulation in this respect are synonymous because ICT complements and/or serves as a catalyst for smooth use of simulation hence some of the stimulants like video, computer, television and the internet are ICT facilities.

In the attempt to justify the utilization of simulation technique and the role of ICT for proper instruction in history and religion as subjects, the researchers shall undertake a quick introduction, then, have a brief discussion on the concepts of simulation technique and ICT, types of simulation, simulation method of teaching, relevance of simulation method, conclusion and recommendations.

CONCEPT OF SIMULATION METHOD

Many scholars have defined simulation variously. Gaba (2004) defined simulation as a technique which replaces or amplifies real experiences with guided experience, often immersive in nature, that evoke or replicate a substantial aspect of the real world in a fully interactive fashion. He equally opined that a simulator is a device which imitates a real or part of a human body and which is capable of interacting with the learner. On the other hand, Cooper and Taqueti (2004) viewed simulators as any device that replicates a part of a system or process could aptly be referred to as a simulator.

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On his own part, Farooq (2003) sees simulation as imitation in which role playing is used to arouse student's interest in the process of teaching. It subsumes a situation whereby the teacher and the students use this skill by playing some roles in the classroom without any preliminary training and spontaneously too. From the afore mentioned definitions, the researchers view simulation as the process of imitating abstractions into reality in the course of instruction while simulators are perceived as equipments like video, television, flight simulator etc which poses sound motion and sight used for instruction by creating an atmosphere of an actual event or happening.

It is pertinent to note that though modern simulation, according to Gaba (2004), was developed to meet up with the training and risk management needs of complete and high-risk industries and organizations like aviation, nuclear power production and the military, it has however been found to be very relevant in educational instruction especially in subjects like history and religion which are dubbed abstract, they enable learners to practice required skills in an environment which allows for errors to be corrected on the part of the trainer without misleading the learner or trainee. It brings practicality into the classroom to the supposedly abstract subjects.

CONCEPT OF ICT FOR INSTRUCTION

The term ICT refers to Information Communication Technology. Lyon (1988) defines it as a cluster of computing and communications technologies based on micro-electronic chips while Darkwa (1996) sees it as a subsidiary of pedagogy which engages the use of sound technology to substantiate and improve learning. However, for the purpose of this article, the researchers perceive ICT as any electronically controlled equipment which assist teachers and students in the reproduction of curriculum contents into realities in the classroom. For instance, television, video, computer and the internet.

In recent times, the growing need to integrate ICT in the school curriculum like history and religion has become a matter of necessity not just to support teaching and learning but also as a subject of study in its own right. This is largely because acquisition of knowledge, skills and understanding in its use enables the teachers and students to access, share, analyze and present information gained from a variety of sources for different purposes like simulated teaching and learning.

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The use of ICT allows the teacher and student to work collaboratively and independently and also creates the avenue to work in groups thereby developing team spirit, cohesion and social values which strengthens role-play in simulated instruction. Morris and Anderson (1987) opined that the ability of ICT to clarify abstracts and provide huge quantities of information concerning the history and religious practices of a people, etc makes it unavoidable in the 21st century.

For example, the integrative approach to ICT stipulates the planning and use of ICT within a subject area purposely to promote particular concepts and skills in order to improve students goal attainment. This requires that the history and religion curriculum must be carefully studied by both the teacher and the student to enable them select the appropriate ICT facility that would facilitate simulation towards achieving their instructional objectives. In practical terms, the history teacher could ask the students to watch a video clip on the transportation of slaves across the Mediterranean sea to Europe and while in the classroom, using the simulation approach, he could split the students into groups and ask them to simulate various scenes from the clip they watched. In the area of religion too, the teacher could play the video film – "Jesus of Nazareth" and when teaching the topic proper, students could be asked to simulate different incidences learned from the film.

CLASSIFICATION OF SIMULATION

The Institute for Simulation and Training (2014) has outlined three categories of simulation: live, virtual and constructive simulations. However, a simulation may also be a combination of the two or more types which could be Science oriented where interactions of things are either observed or measured or where it involves interactions with humans. These shall be discussed below.

Virtual simulation: This refers to the type of simulation whereby human beings and equipment are involved in a computer controlled setting and/or situation. A typical example of this is a flight simulator where pilots are trained in a simulated environment.

Live simulation: It typically involves humans and/or equipment and activity in a setting where they would operate for real. For instance, war games with soldiers in the battle field. In this case, there is no time limit like in the case of virtual simulations because time is continuous in the real world. Another example is testing a car battery with an electric tester.

Constructive simulations: This does not involve humans or equipment as participants compared to live and virtual simulations. Rather, it is a situation whereby an anticipated path of a hurricane for instance, might be constructed through application of temperatures, pressures, wind currents and other weather devices.

RELEVANCE OF SIMULATION METHOD TO HISTORY AND RELIGIOUS INSTRUCTION

Simulations when deployed into the classroom setting can recreate experiences and holds great potential for teaching and learning. In fact, simulations enable students learn better by experience than through reading or lectures by achieving fidelity (level of reality) whether low or high, (Aldrich, 2005). Effective pedagogy in history and religion in contemporary times require a technique that goes beyond the traditional didactic teaching which relies heavily on rote learning or memorization of facts. The aim of this sub-section is to expose the reader to the pertinence of this instructional technique as a necessity for history and religion teachers and students. These include;

It enhances critical thinking in the arts subjects like history and religion, Hsiefi (2013). Critical thinking according to the National Council for Excellence in Critical Thinking (1987) refers to an intellectually disciplined process of actively conceptualizing, analyzing, synthesizing and/or evaluating information gathered from observation, experience, reasoning or communication. In this dimension, simulation helps by creating the condition that enables this level of learning through fidelity. For instance, both the history and religion teachers and students would have the opportunity to re-enact or mimic or imitate Othman Danfodio's Jihadist battles against pagans after watching the video film or where they participate in live simulations by situating the students where they would operate for real. This is because a scene would be created, for example, to look like a real battle field with students using toy weapons. This will greatly enhance their ability to think critically, analyze, synthesize and take decisions.

Secondly, it promotes self and immediate assessment. Decker (2008) noted that in the face of limited resources which have reduced chances of students and teachers experiencing real life situations considerably, simulation technique has become a willing tool for self and immediate evaluation option. For instance, on the issue of self evaluation, students and teachers can have a play back of their recorded activities and assess their performance individually while the immediate aspect of the evaluation is that those who are standing and watching or other teams or groups assess the other groups instantly for corrections to be done. This is unlike the test of assignment which the teacher takes back the scripts to his house and gives it back after some days or weeks in some instances. In other words, simulation provides immediate feedback.

Thirdly, team spirit is encouraged through simulation technique. Galloway (2009) reported a research conducted to assess the effectiveness of simulation team training of participant's belief in their ability to carry out teamwork related competencies. The researchers found out that there were significant gains in role clarity, anticipatory response and overall team cohesion. For instance, when students of history are given different roles to play in a simulation class, it enhances mastery and specific skill acquisition like different roles in terms of slave marauders, the slaves themselves, the slave masters and the African chiefs or when religion students are given different roles in the story of Joseph and his brothers, some could imitate Joseph as king in Egypt, others could act as the remaining brothers while one could act like Jacob (their father). This depicts the entire cycle of the trans-Atlantic slave trade from the sources of slaves in Africa to their final destination in Europe and America and also the story of Joseph and his brothers from the bible.

Fourthly, the utilization of simulation technique enables learners to practice necessary skills in an environment that gives the opportunity for errors to be corrected without any risk of misleading the learner. Students at this point could introduce their skills without danger to the curriculum (Ziv, Wolpe, Small or Glick, 2003). In the case of history and religion students for instance, in the process of having a simulation class on the Jihad of Othman Danfodio, they will have the chance to assess themselves and improve where need be before going on teaching practice exercise.

Conclusively, subjects in the Arts like history and religion really require the use of simulation technique for instruction which is further strengthened by ICT. This is because it recreates past events through fidelity.

RECOMMENDATIONS

1.   Teachers of history and religion need to attend workshops and seminars on the   use of simulation techniques in order to equip themselves with this   much needed   skill for effective classroom instruction.

2. Institutions of learning should endeavour to provide required facilities for   the use of simulation technique in order to ensure both low and high fidelity.

3. Students should be encouraged to be ICT literate hence it is an important aspect   of simulation as this will complement their learning options for higher   educational achievement.

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