Integrating Self-Paced E-Learning with Conventional Classroom Learning in Nigeria Educational System

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Abstract The advances in Information and Communication Technology (ICT) and its rapid growth are changing the way people use, develop, process and disseminate information and instruction {technology}. There is no doubt that ICT use in the classroom increase student's motivation to learn, engage in learning and give independence in learning. Evidence shows that there is a correlation between using ICT in schools and students academic achievement across a range of courses. Student are comfortable and fulfilled in an ICT environment and using this as a bench mark, [integrating it with a self-paced student centered learning] in conjunction with the conventional classroom learning will go a long way to improve learning thereby increasing academic performance of the students at large. This paper explores the potential of self-paced e-learning alongside with conventional classroom learning and the positive impact the integration of the two can have on student's academic performance when incorporated into the Nigeria Educational system.

Keywords: Information and Communication Technology (ICT), Self-paced e-learning, Conventional Classroom Learning, Integration, Nigeria Educational System

Introduction

ICT has been used in educational settings since its inception, but recent empirical research has affirmed that it plays a vital role in high-quality learning and teaching. Such research insights have shown that advances in technology have opened up new possibilities for the way in which teachers educate their classes, giving potential for innovative ways to encourage students to become more engaged in their schooling. To enable the best possible outcomes for their students it is vital that schools are able to keep up with this progress. (Condie and Munro, 2007).

In an extensive review of the ICT and performance levels in the UK Cox, Abbott, Webb, Blakeley, Beauchamp & Rhodes (2003) found evidence of positive effects on achievement levels in students across a wide range of subjects, which particularly indicates that in European schools ICT has positively enhanced performance in the primary years, particularly in the primary language of the country. Schools that have greater ICT infrastructure perform more highly than schools with less developed ICT infrastructure. Higher motivation is reported, particularly for primary students, with the use of ICT such as interactive whiteboards.

The majority of teachers report that students are more highly motivated, which in turn affects behaviour and communication when using computers and the internet in class. In order to reach European targets set for the year 2010, the numbers of computers in schools have increased dramatically in recent years (Balanskat and Blamire, 2007). Two thirds of teachers report being very confident in their usage of word processors, and a third feel that they have the necessary skills to develop electronic presentations. Almost all teachers in the UK and Denmark report using ICT regularly as a teaching aid, whereas in other countries such as Greece or Latvia, only a third of teachers report doing so.

Greater gains of achievement in students are seen when the teacher uses ICT in a planned, structured way that is integrated effectively into their lessons (Higgins, 2003).

Conventional Classroom Learning

According to Martin and Eugenio (1992), conventional classroom teaching is conceived as the transmission of "knowledge" or "information" from the teacher to the student. The teacher in this instance prepares for the lesson to be taken, therefore takes the most active role in the classroom [provide and guide] and students are required to listen, take notes, memorize, and be able to demonstrate their knowledge by filling in the proper blanks or choosing the appropriate alternative on the test.

Knowledge, in this view, is a set of beliefs that accurately mirrors the world. The emphasis in the classroom is on transmitting these beliefs clearly and precisely. Rarely, then, is interaction between teacher and student genuinely initiated by the latter. The teacher not only has all of the answers but also all of the relevant questions. Students are not, at the first instant are presumed to know nothing and may not necessarily contribute or ask questions to which the teacher can give clear and definite answers.

The conventional classroom has a certain theory of knowledge, in this view, is acquired passively rather than actively, is more the product of observation than of exploration. Principally, education has two aims: first, the transmission of the knowledge that has been acquired firsthand by those who have preceded us (which Bertrand called "knowledge by description'), and, second, to make sure that the student's mind remains accurately aimed and highly receptive-- so that it is itself capable of acquiring "knowledge by [direct] acquaintance"(Bertrand 1946).

The most vital relationship in a conventional classroom is between the teacher and student, and this is so, because the teacher transmits what he has learnt in the past and in tune with the present to the student. The tutor-students ratio is kept low to be able to produce the best result [the ideal learning situation is one to one]. Schools teach students in groups only because it is financially impossible to have a one-to-one teacher-student ratio. Keeping the ratio very low will improve teachers productivity and also beneficial to students with slow learning prowess.

Underlying the conventional wisdom, as Richard Rorty (1979) has emphasized, is a certain metaphor, or picture, that has dominated epistemology since Descartes. This is the picture of the mind as a great mirror containing various representations--some accurate, some not--of nature. It is the task of epistemology to identify the foundation and to provide a method that, when properly employed, will "polish" the mirror and ensure that all that is represented on it accurately reflects, or is true of, the world.

There is an important difference between students learning in a group and learning as a group. Students in conventional classrooms learn in groups largely because financial considerations make it impossible for each student to have his or her own tutor. The emphasis is on the transmission of "knowledge" from active teacher to passive student, and the (financially prohibitive) ideal is a one-to-one teacher-student ratio. In contrast, the sort of classroom envisages-- what is characterize as a "community of inquiry"--regards group learning as essential to education. Members of a class who work *as* a group learn to see themselves as active participants in the discovery, analysis, and justification of claims to knowledge. As such, they constitute a model of the nature and structure of knowledge as it exists outside of the classroom. The emphasis is on dialogue, interaction, and a joint cooperative undertaking guided by a skilled and sensitive teacher who is him- or herself an interested inquirer.

Conventional learning typically takes place in an identifiable classroom space, usually in a school or in an institution dedicated to learning. A traditional classroom usually has a number of specific features, including:

- an instructor/trainer who delivers information to students
- a number of students/learner who are all physically present in the classroom and regularly meet at a specific time

- student participation in lectures and discussions
- a set of chairs and desk arrange in rows and columns

Advantages of Conventional Classroom Learning

The following are some of the advantages of Conventional Classroom Learning

- Provides interactive classroom setting that promotes the open exchange of ideas: Having numerous students learning in the same classroom has the added benefit of allowing students to exchange ideas and questions with one another providing another valuable learning medium that online environments cannot replicate. First-hand interaction with the educating professor also allows for ideas to be exchanged freely and without any communication barriers.
- A classroom creates an environment of learning. While a student is attending a class s/he learns how to behave in an appropriate manner, how to make friends and interact with people. Such learning is not possible in online courses as the individual would interact with computer.
- In a classroom the teacher decides the important areas of study and imparts the same knowledge to all the students, though the way each student absorbs information is different. The teacher can also identify learning issues with particular students and provide support. Such an environment is absent in online learning programs as the students are left on their own to study and have to develop the necessary skills alone.
- Exchange ideas with peers, not only about the training course but about other current issues.
- Benefit from a face-to-face learning approach that allows learners to address any difficulties or areas of confusion immediately. A classroom environment offers students the opportunity to have face-to-face interactions with their peers and instructors. This is an added social benefit as well as an educational aid. Because students see the same peers in class every session, they get a chance to form friendships. In the case of higher learning, pupils can find potential lifelong professional connections. On the educational side, students get a chance to participate in a lecture or class discussion physically. If something is not understood, interrupting to ask for clarification is always an option. The best classes not only include, but also insist that students get hands-on experience with the subjects being taught. This is particularly useful for those preparing for certification exams because analysis and problem-solving skills are learned best through trial and error, with access to a helpful mentor as needed.
- Access to a savvy, experienced instructor permits students to apply what they learn to real-world needs by asking questions and looking for connections to the job. Because learning works best when materials are relevant, good instructors add real value.(Ed, 2003)
- In some cases, the classroom environment is the only style of education the students know, and the change of pace online classes offer may prove difficult to adjust to. Students get the opportunity for hands-on, structured learning instead of being presented with the course books, written lectures and self-directed activities distance learning provides. Suddenly straying from the standard learning experience may add unexpected strain academically, making the class material more difficult in the process. At this point, they enjoy the interaction between them and their teachers.

Limitations of Conventional Classroom Learning

Like other instructional methodologies, conventional classroom learning has its limitations.

- Neglect problem solving, critical thinking, and higher order learning skills: The classroom setting can also hinder ones ability to learn by allowing other, more vocal, students to dominate the bulk of the discussion environments. Quieter personalities are limited in their communication options for exchanging ideas and information

- Encourage passive learning: Depending on the level of interaction in the classroom setting, shy students may be allowed to attend classes without providing alternative ways to communicate ideas. Forcing students to learn by vocal exchange with a professor may limit their ability to learn.
- Ignore individual learning differences between students: Classrooms environments tend to group students together in large number often making it difficult for instructors to isolate learning deficiencies and provide the necessary close attention that individuals may need to learn.
- A campus-based learning experience means the class schedule is predetermined and not subject to change. Students must shape their personal schedules around school instead of the other way around. If plans unexpectedly change or an emergency comes up, the student cannot adjust the class schedule to turn in the work at a different time. If a scheduling conflict arises between work and school, students are forced to choose between their education and their income.
- Knowledge conveyed in the classroom tends to be situated in the context of the classroom and the school rather than the context in which the knowledge was created (Henning, 1998). This contextual dichotomy has been shown to negatively impact the learning process, adversely effecting learner motivation in particular.
- The teacher is the center of attention, not the students. That was the way education was, and still is in many regards. Learning follows whatever pace is dictated by its training materials, by the time allotted for the class and the instructor's approach.
- With classroom learning, students must physically attend the courses to get credit for attendance. Those who must travel long distances to get to school must allot enough time to arrive punctually, particularly in instances where inclement weather is involved. A long commute may also mean a hefty transportation cost over a long period of time which, when combined with the cost of education, may present an issue to financially challenged students.

Self-Paced E-Learning

As cited by Gurmak, John and Harvey(2005), e-Learning is construed in a variety of contexts, such as distance learning, online learning and networked learning (Wilson 2001). In the context of this paper self-paced e-learning is the one that utilizes information and communications technology (ICT) to promote educational interaction among students and their teachers [content provided] . Volery (2000) argues that the fast expansion of the Internet and related technological advancements, in conjunction with limited budgets and social demands for improved access to higher education, has produced a substantial incentive for universities to introduce eLearning courses.

Self-paced or individualized learning is defined as learning directed by the individual in order to meet personal learning objectives. Although self-paced learning and individualized learning have essentially the same meaning, there are some subtle differences. In self-paced learning, the learner controls the pace of the learning process. For example, in a self-paced computer-based course, two students might begin the course on the same day but one may finish days ahead of the other. By contrast, in individualized learning, there may be some time parameters. For example, a structured on-the-job training (OJT) course may require the individual to reach specific points in the course at specific times. The learning is still targeted to the individual, but the pace of learning may be partially controlled by the trainer or facilitator. Here, the term self-paced learning is used to describe both approaches.

Self-paced courses provide a convenient alternative to the traditional classroom. In fact, recent meta analysis (Means, 2009) research is showing that online distance education students outperform campus based students.

Spring (2004) proposed five teaching and learning modes in which e-learning can provide gains in effectiveness, quality and cost benefits:

- Classroom interactive learning: between students and teachers and among students

- Independent learning: where students or teachers are learning and studying alone in a variety of environments and modes including aspects of self directed lifelong learning;
- Networked learning: through contact with groups, individuals and sources where quite different influences and experiences are creating a qualitative difference to both standard and blended teaching and learning;
- Organizational learning: including learning communities, learning precincts and learning cities; and
- Managed learning: where education technology is creating, through computer managed communication and learning management systems, capability to enable teachers to negotiate and provide individualized curricula and learning experiences for each student.

Examples of Self-Paced Learning

In self-paced learning, the content, learning sequence, pace of learning and possibly even the media are determined by the individual. Examples of self-paced learning include:

- Reading a book to acquire new information about a topic.
- Reading a book, listening to accompanying audiotapes and completing exercises in a workbook.
- Reading a reference manual and watching a video.
- Completing a computer-assisted learning (CAL) course that uses interactive computer modules for knowledge transfer and one-on-one work with the clinical trainer for skills transfer, first with models and then with clients.
- Completing a CAL distance learning course on the Internet (knowledge transfer only).
- Participating in a structured OJT clinical skills course that involves reading assignments in a reference manual, completing exercises in a workbook and working one-on-one with the clinical trainer for skills transfer, first with models and then with clients.

Advantages of Self-Paced E-Learning

According to Anderson (2005), Self-paced e-learning maximizes individual freedom. Rather than making the obviously incorrect assumption that all students learn at the same speed, have access and control over their lives to march along with a cohort group of learners or are able, despite divergent life circumstances, to begin and end their study on the same day, self-paced study correctly puts the learner squarely in control.

In most group-based (conventional classroom) courses, the trainer attempts to present the information to the typical or average learner. The more capable learners may become bored or frustrated, while the less capable learners may feel lost or overwhelmed. By contrast, a self-paced approach allows the learner to make many of the decisions about when, where, what and how quickly to learn. The trainer functions as a guide and facilitator of learning.

The other advantages to this approach of learning are:

- Learners can learn information and skills when they need them.
- Learners are not as dependent on the structure and pace established by the trainer.
- Assuming control of the learning process is highly motivating for many learners.
- Each learner has the same level of participation in the learning process. Participants are active rather than passive, and assume greater responsibility for their own learning.
- Because most self-paced learning courses allow participants to begin and end a segment of the training course at any time, it is an efficient use of training time and resources.
- Learning activities can be organized sequentially, because each component in a self-paced course has objectives that must be met before proceeding to the next component.

- Self-paced learning provides trainers with the time to focus more attention on participants who need assistance. Although participants who are not having difficulties certainly should not be neglected, this approach allows the trainer to spend time with participants who do require assistance.
- Essential equipment, materials and supplies used can be kept at a minimum because only one or two participants may be involved in training at any one time.

Limitations of Self- Paced E-Learning

As with any approach to learning, there are also limitations to consider:

- Most learners have not learned this way before, so they may feel uncomfortable with learning on their own.
- Students may lack the necessary motivation to work independently.
- Learners may have poor reading skills, because most self-paced learning approaches require reading, this can be a major limitation.
- Learners may possess poor time management skills. Procrastination may make the self-paced learning process less effective than it can be.
- Trainers may feel that they do not have time to manage a self-paced learning system.
- It may be challenging and time-consuming to design and develop the appropriate learning materials, in either print or electronic format.
- Without good planning, it may be difficult for the trainer to arrange for times to meet with the participant.
- Trainers may find that documenting, evaluating and updating Students progress is very time-consuming.

Advantages of the Integration of Self-Paced E-Learning and Conventional Classroom Learning

The following are some the benefits that would be derived from integrating self-paced e-learning and conventional classroom learning:

- The Self-paced e-Learning is not an exclusionary alternative to the traditional classroom, but really are an extension of that classroom into cyber-space and global networking. Traditional classroom teaching and learning are addressed with the leverage provided by technology-based instruction and testing.
- The power of the integration is in sequencing the activities, engaging the learner in different ways, and then optimizing the combined learning effect. The content of the course will be made interactive, graphical, voice enabled and with real life simulations.
- The student can make use of the advantages of self-paced e-learning by going through beforehand the course modules to be handled in the next class, making use of the interactive sections available in form of quiz. When such students appear in class, treating the same course module will be simplified and the student can learn better from the lecturer by asking questions on those aspects that were not clear on the self-paced e-module
- The learning process in some people takes quite a bit of time, so a self-paced e-learning setting is ideal for the patience and environment required. Such people can now make use of the advantage of going through the module online moving at their own pace to comprehend what was initially taught in class.

Conclusion

This research proposes a combination of online, intranet and internet (self-paced e-learning) and conventional classroom learning style for courses. This will allow the benefits of both types of learning to be realized. The truth of the matter is that there are advantages and disadvantages to every type of learning environment. It is best to use the advantages that each method offers to their fullest extent. It is obvious from this research review, that a combination of self paced e-learning and classroom learning to convey subject matter to students will be the best teaching method. This will on the long run translate on their overall performance of students in school.

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