The Impact of Integrated E-Learning Approach on Business Studies Syllabus Coverage by Secondary Schools in Kenya

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Abstract

Based on a study of selected secondary schools in Kenya, this paper assesses whether or not the use of integrated E-learning helps in syllabus coverage for Business Studies subjects. The study was undertaken in selected E-schools in Kenya. With regard to the rate of syllabus coverage, the study established that, according the respondents, the E-learning approach enables the teachers to cover a topic fast; complete their syllabus on time; allow for student revision; allow the teaching of many students at ago; allow a teacher to teach across several classes; enables teachers to teach the syllabus effectively; allows for extra time and allows for simpler lesson preparation. It was thus recommended that the Ministry of Education to embark on fostering innovative networking and partnership arrangements with the private sector to enable schools acquire both hardware and software at cheaper costs. Schools too, should be encouraged to set up innovative partnerships with local ICT providers for purposes of sustainability of the innovation.

Keywords: Impact, Integrated E-Learning Approach, Business Studies Syllabus Coverage, Secondary Schools, Kenya

1. Introduction

Over the past two decades, Information Technology (IT) has broadened to become Information and Communication Technology (ICT), and has become better established within schools (Abbott, 2001). According to Pachler (1999), many claims have been made about its potential contribution to pupils' learning and hence set to 'transform education'. Much current policy and practice reflects a technocratic determinism in which technology is seen as providing relatively immediate tools for teachers and students, and its use as calling primarily for development of technical skills. However, others see successful educational applications of the computer as involving a complex interplay of context, people, activities, machines and available software within specific settings (Pachler, 1999).

Blair (1997) defines Information and Communication Technologies (ICT) as an umbrella term that covers all advanced technologies in manipulating and communicating information. ICT includes the wide varieties of computing hardware; PCs, servers, mainframes, networked storage and LCD projectors. It encompasses all mediums, to record information; magnetic disk/tape, optical disks (CD/DVD), flash memory among others; technology for broadcasting information – radio, television; and technology for communicating through voice and sound or images – microphone, camera, loudspeaker, and telephone to cellular phones. ICT also comprises of the application software packages and online software services (internet) needed for transmission of information. Computer is the key hardware in all the technologies mentioned.

A study by Hennessy *et al*. (2005) reveals the following perceived roles of ICT according to high school students:

1.1 Tasks Effected

This concerns the contribution of ICT use to effecting tasks encountered within academic work. Students argue that use of ICT tools enables them to carry out such tasks with ease, quickly and reliably, and to a high standard. They point to the ease, speed and accuracy of any academic work processes.

For instance, it saves time used drawing out every single graph, because it would otherwise take a lot of time. Interpretation of graphs is made quite easy and quick. One could read the graphs easily and get accurate results. All students also value the way in which ICT facilitate quality of written presentation. They reiterate that ICT helps them to produce neater and tidier work which was more 'professional' in appearance. This was sometimes directly associated with gaining 'more marks'.

It is worth noting that not all students like their presentations done using ICT. Some have commented on the importance of remaining in expressive control of their work as computer-generated work however accomplished lacked the personalized qualities of hand-crafted material. Students also point out a need for more sustained training on typing skills so as to enhance their speed. In seeking information, the Internet is seen as particularly valuable in accessing current or specialist material. Access to information on the Internet has been presented by some pupils as more direct.

They reiterate that rather than having to go through loads and loads of pages of really difficult stuff and finding a couple of good bits and then pulling them out, the Internet just gives you what you want and then you can read it and change it accordingly. Equally, books have been presented by other pupils as a more contained and structured source of information. These students argue that books are better because you use the index, whereas if you search for something on the Internet you come up with lots of things that aren't quite related. Both of these comments are revealing about the search strategies available to the students making them. In summary, students value ICT tools as enabling them to carry out academic tasks easily, rapidly and reliably, yielding results of high quality.

Nevertheless, they experience situations where they are hampered in exploiting this potential because of lack of proficiency in using the tools. This might be seen as a predictable consequence of their largely occasional and irregular opportunities to make use of ICT in many subject areas, inhibiting their development of the constituent elements of digital literacy. Although students generally welcome the way in which ICT tools effect tasks, some are concerned to retain control over their work. Equally, although the high quality achievable when using ICT tools is generally appreciated, this also accentuates what some pupils see as the more personalized character of hand-crafted material.

1.2 Refinement Assisted

Students remark on how writing with ICT made various types of modification much easier. One aspect is simply correcting and erasing mistakes. The feedback provided by spelling and grammar checkers is helpful. The computer too corrects and suggests how to write a sentence properly. Equally, the ready reversibility of texts affected attitudes to re-drafting. It's easier to re-draft work when sent back by the teacher because the computer just opens the file and you change it. More fundamentally, some students suggest that the flexibility available when writing with a computer assist the creative process of composition. ICT allows them to generate examples and explore patterns that could assist analysis. For instance, drawing one graph and generating many more very fast as you compare the changes gives you immediate feedback. In summary, students appreciate the way in which working with ICT facilitated various forms of correction and revision, experimentation and exploration, supporting the refinement of artifacts and ideas.

1.3 Ambience Altered

This refers to the association between ICT use and altered working ambience and classroom relations. Students commented on differences between ordinary lessons and those using computers and other technologies. Lessons using the latter were seen as more 'exciting' and 'fun' than others. Lessons are more exciting, because one writes with a computer rather than pen and paper. It's more fun to use because one doesn't have to sit there and write. Differences between ordinary lessons and those using computers were characterized in terms of changed patterns of activity.

Students welcome what they see as a tendency of teachers to adopt a more relaxed manner in lessons involving ICT. Teachers are friendlier in their lessons than when teaching with no ICTs. This meant that ICTs reduced formality in the teachers.

In summary, students' perceive lessons where technology is in use as having distinctive features. Where interaction with a computer has replaced customary routines notably involving listening to the teacher and writing by hand, class work is seen as more exciting and fun. Nevertheless, pupils recognize that as its novelty fades, such computer use might itself come to seem routine.

Relations with teachers were seen as more relaxed although this could trigger misconduct. While working in pairs at a computer was common, this was largely a matter of expediency.

1.4 Motivation Changed

Students link the altered classroom ambience associated with ICT use to raise interest and increased motivation as already illustrated in the preceding thematic section and pointed to ways in which the scope for effecting tasks and refining creations with ICT use as examined in the two opening thematic sections alleviated potentially demotivating factors. Educational software packages designed or perceived as games were popular with younger pupils, whereas use of ICT tools could be seen as less attractive.

A key motivating quality of ICT-mediated work is interactivity. Students argue that sometimes it can get a bit boring just sitting there listening to the teacher, looking at the chalkboard. They are of the opinion of an interactive program on the computer where you can click on parts of the body where it actually talks to you and you can see what it does, rather than just seeing a picture on the chalkboard.

Correspondingly, pupils note the motivational power of interactive simulations involving intriguing practical challenges especially with the use of the Encarta. Students have spoken of the potential of computer tools to help bypass difficulties and weaknesses experienced in writing and drawing by hand. For example, they see the capacity to produce legible script as beneficial, particularly as regards treatment of their work by teachers. Similarly, students hint at how the ease and precision with which graphs and technical drawings could be produced on the computer made such tasks less of a struggle. Equally, they point to the discouragement associated with inaccuracies and mistakes when working by hand.

In summary, the students see computer-based tools and resources as helping not just to effect tasks and improve presentation, but also to refine work and trial options. They associate the use of such tools and resources with changes in working ambience and classroom relations, as well as with raised interest and increased motivation on their part. Students welcome opportunities for independent working mediated by ICT in which they could engage more directly with appropriately challenging tasks; they were concerned that this reshaping of learning might be displacing valuable teaching.

To corroborate the above findings, Hennessy *et al.* (2005) have conducted another study on perceived roles of ICT according to high school teachers. The study revealed the following ICT roles:

1.5 Broadening Classroom Resources and Reference

Technology, notably the internet, extends the information available within the classroom. The internet is rich with information in contrast with textbook information. It allows for greater accessibility of up to date information such as news items and contemporary features and availability of a greater range of textual material for analysis. Accessibility to a wider array of resources would open up new possibilities for differentiation through tailoring activities to particular learning needs and interests of individuals or groups.

1.6 Enhancing Working Processes and Products

ICT facilitates working processes and/or improves resulting products. For example, teachers drawing on internet resources took the view that technology tools would make research processes quicker and easier, offer alternative ways of communicating findings and presenting work. Similarly, formatting tools would enable students to edit, redraft or redraw work more easily and produce output of better appearance. Technology would overcome physical limitations associated with existing methods. It would not only facilitate students' work but also relieve the teacher of related organizational task(s). Such tasks include accessing new stories online instead of pre-recording videos of news footage and many other similar encounters.

1.7 Mediating Subject Thinking and Learning

Teachers anticipate that ICT would provide tool-mediated support for subject-related thinking and learning. These ideas went beyond the types of assistance outlined in the previous theme to focus more directly on how use of technology would contribute to furthering learners' subject knowledge and understanding. In some projects such ideas were expressed only in broad terms: for example that use of ICT would enhance students understanding of Geography or appreciation of scientific processes.

Elsewhere, more specific ideas have been articulated. For example, the History teachers expected that working with a wider range of sources would help students to develop empathy and appreciation of different viewpoints.

English teachers viewed technology as helping to develop students' awareness of format, audience and purpose by providing tools with which they could deconstruct, examine, and manipulate and revise text more easily.

1.8 Fostering more Independent Student Activity

Technology can be used to induce and support more self-directed student activity. Technology facilitates less teacher-led approaches and enables students to work more autonomously. For example, technology supports individuals' research efforts through accessibility of on-line materials. This affords the freedom to select from sources that are not teacher-determined which is in contrast with textbook provision. In the end it enables a choice of presentation methods through availability of different software tools.

1.9 Improving Student Motivation towards Lessons

Technology can be a vehicle for engaging students' interest in subject topics, for example through the interactive and multimodal qualities of computer-based work. Immediacy of access to resources and relevance of materials would render learning more enjoyable for students. Reduced handwriting requirements and higher quality presentation motivates students and increase students' self-esteem.

In conclusion, it is worth noting that there are different types of educational experiences that exist. Instructors who are considering the use of technologies should ask themselves what they expect from the media and how it will make learning more effective. According to Newby *et al*. (1996), the different types of educational experiences exist from hands-on apprenticeships to role-playing, from demonstrations to reading printed text. Some educators believe that different experiences are more or less effective for achieving different types of instructional outcomes. For example, text with pictures is not as effective as live demonstrations for teaching motor skills.

Recognition and effective use of technology can be linked to the Edgar Dale's "Cone of Experience (Fig. 1) Dale (1969) has organized learning experiences according to the degree of concreteness each possesses. At the bottom is hands-on experience. As one ascend the cone, concrete experience begins to drop out, with stimuli becoming more abstract; the stimuli require more skill on the part of the learners to interpret the messages they carry. All lectures including the illustrated lectures are considered some of the most abstract types of presentations.

For certain types of learning such as changing attitudes or teaching motor skills, experiences at the bottom of the cone are more appropriate than those at the top. Learning experiences at the bottom of the cone tend to hold student attention longer and involve active student participation. Media at the top of the cone are said to be more passive but are suitable for transmitting large amounts of information quickly. Educational experiences that involve the learner   physically and that give concrete examples are retained longer than abstract experiences such as listening to a lecture.

In summary integrated technologies, according to Newby *et al*. (1996), can be used to support one or more of the following instructional activities such as gaining the students attention for instance using a picture on the screen, a question on the board, or music playing as students enter the room all serve to get the student's attention. Also it enables recall of prerequisites where students recall what they learned in the last class, so that new material can be attached to and built upon it. A teacher too can present objectives to the learners, present new content, support learning through examples and visual elaboration One of the biggest advantages of technology is to bring the world into the classroom when it is not possible to take the student into the world, Technology also allows presentation of information to students, pose questions to them and get them involved in answering the questions. It can be also be used to provide feedback relating to a test or class exercise. Students can also visualize a lesson and transfer abstract concepts into concrete, easier to remember objects. Last but not least, technology is an excellent way to pose assessment questions for the class to answer, or students can submit mediated presentations as classroom projects.

Statement of the Problem

Development for any country is highly dependent on quality education. Education and access to information is universally recognized as the most important enabler of empowering societies and individuals to manage future challenges on their own. Provision of quality education, on the other hand, is dependent on more than just teachers and classrooms. The quality of the content taught, the materials used to teach it and the skills that are developed are also of great importance.

Many studies conducted across the globe on use of technology in classrooms have reported that technology can be an effective tool in supporting learning and teaching in a classroom situation. SchoolNet programme in South Africa promotes learning and teaching through the use of ICTs. Strydom (2003) says of the e-Education policy white paper:

Every South African learner in the general and education training bands will be ICT capable, that is, use ICTs confidently and creatively to help develop the skills and knowledge they need to achieve personal goals and to be full participants in the global community (p. 13).

This shows that ICT innovations have great potential, particularly with regard to access to information, collaboration and the creation and sharing of ideas.

The realization of these, however, will require new innovations in the methods of teaching. Business Studies is a crucial subject that teaches individuals how to participate in the society in terms of investment of resources. An educated manpower is an essential asset in any country aspiring to attain industrial status.

Good student performance plays a catalytic role in the process of nation development as it presupposes good understanding of how the different structures in business operate. However, enrolment and performance in the subject have been unsatisfactory. KNEC reports (2006-2008) indicate that an average of 44% students take the subject and the average mean score 46.2% respectively. This kind of performance gives a negative picture on the subject and in turn discourages many students from enrolling. This will mean a high illiterate population in Business knowledge in the country.

KNEC report (2007) has further cited a major weakness in the students' performance as lack of mastery of content. Students do not quite comprehend the Business Studies concepts thus give irrelevant responses. Jepkoech (2002) reveals that teachers of Business Studies do not fully utilize the relevant available resources when teaching and heavily rely on conventional methods of teaching such as the informal lecture and discussion methods. The teachers of the subject, in defence, cited a wide syllabus and less time allocated for its coverage. They lamented, therefore, that they are left with no choice but to teach through the syllabus very fast using the conventional methods.

The problem with Business Studies literacy seems to revolve around the understanding of concepts, its retention, and its presentation in an examination context. The problem is worsened by limited time for syllabus coverage and thorough revision in preparation for the national exam, the KCSE. The probable cause of these problems seems to emanate from the instructional approach the teachers are utilizing.

Therefore, if teachers of Business Studies are to improve students' cognitive and affective abilities in the subject, then they must seek an alternative approach to instruction. Studies carried out in the developed countries by Mayer (2001) provide an example of well-grounded multimedia research. These studies revealed that the use of multi-media approach to teaching led to greater learning by students. The integration of learning technologies into high school classrooms is being promoted and supported around the world. Underlying the promotion and support are claims that successful integration will lead to enhanced learning outcomes (DoE, 1998).

Whereas this claim has been advanced in a number of studies, it is difficult to justify, according to Honey *et al.* (2000). They claim that research into the impact of learning technologies on the quality of students' learning outcomes is limited and outdated. A limiting factor has been the difficulty of defining and measuring enhanced learning outcomes attributable specifically to the use of learning technologies. More so the various studies and reports at the author's disposal indicate no studies on the perception of integrated E-learning approach as regards Business Studies syllabus coverage. With this limited knowledge about integrated E-learning approach, it becomes imperative to investigate the integrated E-learning approach in the teaching and learning of Business Studies.

1.10 Limitations of the Study

The study was limited to the public E-schools only, which are so far known to utilize the integrated E-learning approach. Time and financial resources did not allow accomplishing the study on a larger scale. The study was limited to Business Studies and therefore the generalization of the findings be limited to the subject.

2. Materials and Methods

The research was carried out in three counties in Kenya, namely Nakuru County, Vihiga County and Siaya County. It was necessary to use the three counties in Kenya because the three e-schools are situated in those counties. These schools were part of the schools selected for the NEPAD E-learning project in Kenya. These schools were found appropriate because they were fully equipped with the ICTs necessary for the teaching and learning process. The study used a survey research design. The design is deemed appropriate because the researcher could collect more information through the use of samples. This was a specific survey seeking information on the integrated E-learning approach, the independent variable, which is the e-learning innovation, was not introduced. The variable is already under treatment. The introduction of the innovation could not have been possible by the researcher because it is expensive.

To come up with a quality research, the author opted for a mixed research approach that consisted of both quantitative and qualitative attributes. Mixed research is a general type of research in which quantitative and qualitative methods, techniques or other paradigm characteristics are mixed in one overall study. Specifically, the author settled for a mixed model research in which both qualitative and quantitative research approaches were used within the stages of the research process. The author conducted a survey and used a questionnaire that was composed of multiple closed-ended as well as several open-ended. Within the same stage of study the author too conducted an interview. The quantitative and qualitative aspects of the study arose from the questionnaires administered to the teachers and students of Business Studies as well as interviewing the head teachers of the E-schools and focusing on the same phenomenon.

Three secondary schools constituted the target population for this study. These are three of the six E-schools in Kenya. The E-schools utilises the new integrated E-learning teaching approach. Reconnaissance had been done to confirm that the three had similar E-learning resources. Head teachers, teachers and students of Business Studies in those schools constituted the target population. In the study, Head teachers, Form Four teachers and students of Business Studies were identified as potential members of the sample. Form Four teachers and students of Business Studies were chosen due the fact that the class had utilized the approach longer than any other class. The Form Four Business Studies teachers have had a longer experience using the approach than other teachers in lower classes.

The Form Four students too have used the technologies longer as compared to the other student fraternity. In order to achieve a desired result with minimum costs, the researcher selected all the three Head teachers as well all eight Form Four Business Studies teachers from the three E-schools. A total of 127 Form Four Business Studies students constituted the sample. The sample was 50% of the total Form Four Business Studies students in the three E-schools. The study assumed simple purposive and simple random sampling techniques to get a representative sample. Purposive sampling was used in selecting the three Head teachers and eight Form Four Business Studies teachers. Simple random sampling was used to select the 127 out of the 252 Form Four Business Studies students.

The study used two instruments in collecting primary data, namely questionnaires and interviews. Two types of questionnaires were designed and used. One questionnaire for students was designed and another for the teachers. The instruments were used because they give the respondents adequate time to provide well thought-out responses to questionnaire items. It also makes it possible for large samples to be covered within a short time. Since standardized questionnaires for the study were not available, the author designed the required questionnaires on the basis of objectives, research questions and reviewed literature. The questionnaires used are now presented below.

The questionnaire for the teachers of Business Studies was divided into five themes. Likert types of items were used to solicit responses on the attitudinal statements. Scheduled interviews with the Heads of schools were also used to back up the questionnaires. This target group who is still the subset of the overall target population was presumed to provide a better point of references beyond just teaching due to their insights and work experience. Interviews were carried out for the sole purpose of supplementing the quantitative data from the filled-in questionnaires. Review of literature has revealed that most findings about effects of new technology on learning are derived from quantitative data with very little or no data on direct observation and/or interviews of the learners. There has been lack of sensitivity to concomitant changes that affect the instructional settings as a result of new technology (Park *et al*., 1993).

The students' questionnaire was intended to corroborate and confirm the information obtained from the teacher-respondents. Apart from collecting information given by the teachers, it also focused on the attitudes of students towards Business Studies as a subject when using the new integrated E-learning approach.

Both descriptive and inferential statistics were used for data analysis. Data was tabulated and frequency tables were generated. Frequencies were converted to percentages to illustrate the relative levels of opinion on the issued items. Descriptive statistics entailed calculation of means scores using the Likert scale. Under inferential statistics, analysis of Variance (ANOVA) was employed to determine the significant differences in students' and teachers' perception towards the new approach. Thus the analysis was focused on testing the null hypotheses. The raw data collected from the Likert type of items were summarized in tables and coded before they were entered into the computer for analysis using the Microsoft Excel spreadsheet.

3. Results and Discussion

Teachers' in Jepkoech (2002) reported lack of syllabus coverage in time. They cited time as a major constraint. This study therefore sought to investigate whether the new approach could alleviate the prevailing situation. Lack of syllabus coverage on time to allow for revision can affect the learners' outcomes especially in examinations. In the study, several items were responded to by teachers' to gauge the efficiency of integrated E-learning approach with regard to the syllabus coverage. The findings were as presented in Table 1.

3.1 Fast Coverage of Subject Topics

Six teachers (75%) said that they covered a topic faster when they used the integrated E-learning approach while 2(25%) responded otherwise. The overwhelming agreement could be attributed to the fact that ICT tools may be used to increase student productivity, particularly with repetitive, low-level tasks involving writing, drawing and computation. Teachers only need to guide students at the initial stages of performing tasks and thus apply similar trends for all other topics. This allows the teachers to teach a topic faster and replicate in other topics.

3.2 Cover of Syllabus on Time

Five teachers (62.5%) completed their syllabus on time while 3(37.5%) were non-committal. Unnecessary repetition of low-level tasks is inefficient, non-motivational and may obscure the real purpose of the learning activity. Many computer applications provide the tools to support students in quickly completing these lower-level tasks so that they can focus on the main purpose of the activity. Word processors, graphics packages, database packages, spreadsheets and other software support the performance of students. The use of scaffolds and tools can help students to solve problems that may have previously been considered to be too difficult for them.

3.3 Student Revision of the Syllabus

Six teachers (75%) stated that the approach allows for student revision while 1(12.5%) felt otherwise and 1(12.5%) was undecided. ICT may be used to provide learning experiences when and where they are needed and allow students to progress at their own pace including revising over and over the previously covered content.

3.4 Number of Students Taught at the Same Time

Five teachers (62.5%) stated that the method allows teaching many students at ago while 2 (25%) were not sure and 1(12.5%) did not agree with the statement. This was so because teachers can use ICT to support learning experiences that involve more cooperation among learners across classes and a more interactive relationship between students and teachers. In particular the use of projectors enables the teacher to join up students from different classes and teach the topic of interest at once.

The DSTV Mindset Learn programme also lends itself for the same. In so doing richer learning environments are developed.

3.5 Teaching across Business Studies classes

Two teachers (25%) agreed that the approach allow one to teach across the classes while 2(25%) disagreed and 4(50%) were not sure. It is evident that most teachers in the schools had not tried to teach across classes simply because Smart Board/interactive board and the computers were in the same room. The space was minimal to accommodate many students. One Head teacher commented that with available space, those ICT resources could allow for teaching across classes.

3.6 Achievement of Lesson Objectives

Four teachers (50%) stated that the content is taught once and no repeat of it. Four more (50%) were undecided. Through the use of ICT students develop an appropriate level of capability, become more engaged with their own learning, and achieve learning outcomes across the curriculum at a higher level. Interactive software and online systems may be used to provide students with greater independence not only in terms of when and where they learn but also what they learn. It is not necessary for all students to do the same thing at the same time. The class does not have to be treated as one group. Individuals or groups of students may consider learning topics independent of the teacher. This ensures learner-driven learning or project-based learning which research reports have proved to enhance learning. The teachers' role becomes that of a facilitator and supervisor of the learning process hence achieving the set objectives.

3.7 No Repeat of Content

Four teachers (50%) agreed that the method enables teachers to teach the syllabus content once. Four teachers (50%) were undecided. The undecided group may not have utilized the approach long enough to ascertain the claim. ICT may be used to support more individualized learning programmes through the use of intelligent tutoring systems and/or computer managed learning systems. Students can be provided with computer support for learning activities tailored to their individual needs, particularly in the case of students with different learning abilities hence teachers are enabled to teach the content once.

3.8 Extra Time

Four teachers (50%) agreed to the statement, 2(25%) disagreed while 2(25%) were not sure. The big number that agreed to the statement could be that ICT is learner-centred. The teacher needs only to exploit the characteristics of ICT to support the learning of students by effectively integrating their use, wherever appropriate, into constructivist learning environments and give them space to work on their own thus allowing them extra time to plan for other instructional activities.

3.9 Easier Lesson Preparation

Five teachers (62.5%) agreed to the statement while 3(37.5%) disagreed. The teachers in agreement can be attributed to the use of Computer productivity tools. These include computer application tools such as Word, Excel, PowerPoint and Dbase. These tools allow teachers to prepare their lessons and store them for retrieval when needed. This implies that teachers do not waste time in preparing lessons by hand.

As seen from Table 2, the high mean scores obtained indicate that teachers cover their syllabus on time when using the new approach. The high mean score of 4.12 indicates that integrated approach allows teachers to complete the syllabus on time and thus allow students to revise the same syllabus thoroughly in preparation for their end of course examinations. Teachers are able to cover the topics fast but effectively. However, the low mean score of 3.00 obtained suggests that the new approach does not allow teaching across classes. Teaching across classes enables one teacher to handle a large group of students at the same time thus making team teaching possible. Team teaching in turn creates extra time for teachers to plan for effective teaching.

In conclusion, therefore, the overall mean score of 3.70 obtained reveals that a greater percentage of teachers agree that they can complete their syllabus on time when using the integrated E-learning approach. One strong reason teachers reiterated was the fact that e-content is prepared in advance and posted in the student computers thus allowing students to work ahead of the classroom lessons. Another reason given was that learning is made interesting, logical hence make learners grasp the concepts easily. This then leads to faster coverage of the syllabus. This was earlier confirmed by the students stating their enthusiasm for technologies stirred as they learned through them.

It can therefore be inferred that teachers are capable of completing their syllabus on time when using the integrated E-learning approach. This is because students are able to retain information after being taught and do not require a repetition as is the case with conventional approaches. Thomas (as cited in Mbuthia, 1996) reveals that students show a high tendency of declining attention, that is, the proportion of information retained during the teaching and learning declined steadily after an initial settling in period. The implication in this proposition is students being taught twice the same information learned. This may not be possible given time constraints in the Business Studies syllabus coverage. Students may also get bored and lose focus ultimately resulting in poor achievements.

These findings show that the conventional method of instruction is inadequate on its own in respect to enhancement of high standards of learning and recall of information. Gagne (1977) asserts that the conventional approaches of instruction must use media besides oral communication in order to overcome their inherent limitations.

4. Conclusion and Recommendations

According to the study findings, the E-learning approach enables the teachers to cover a topic fast; complete their syllabus on time; allows for student revision; allows teaching many students at ago; allows one to teach across the classes; enables teachers to teach the syllabus; allows for extra time, and allows for simpler lesson preparation. As such, it is recommended that the Ministry of Education should embark on fostering innovative networking and partnership arrangements with the private sector such as the computer solution companies such as Microsoft Corporation, Oracle Corporation, Intel Corporation, Designmate Animation Film Corporation and many others. This will enable schools acquire both hardware and software at cheaper costs. Schools should also be encouraged to set up innovative partnerships with local ICT providers for purposes of sustainability of the innovation.

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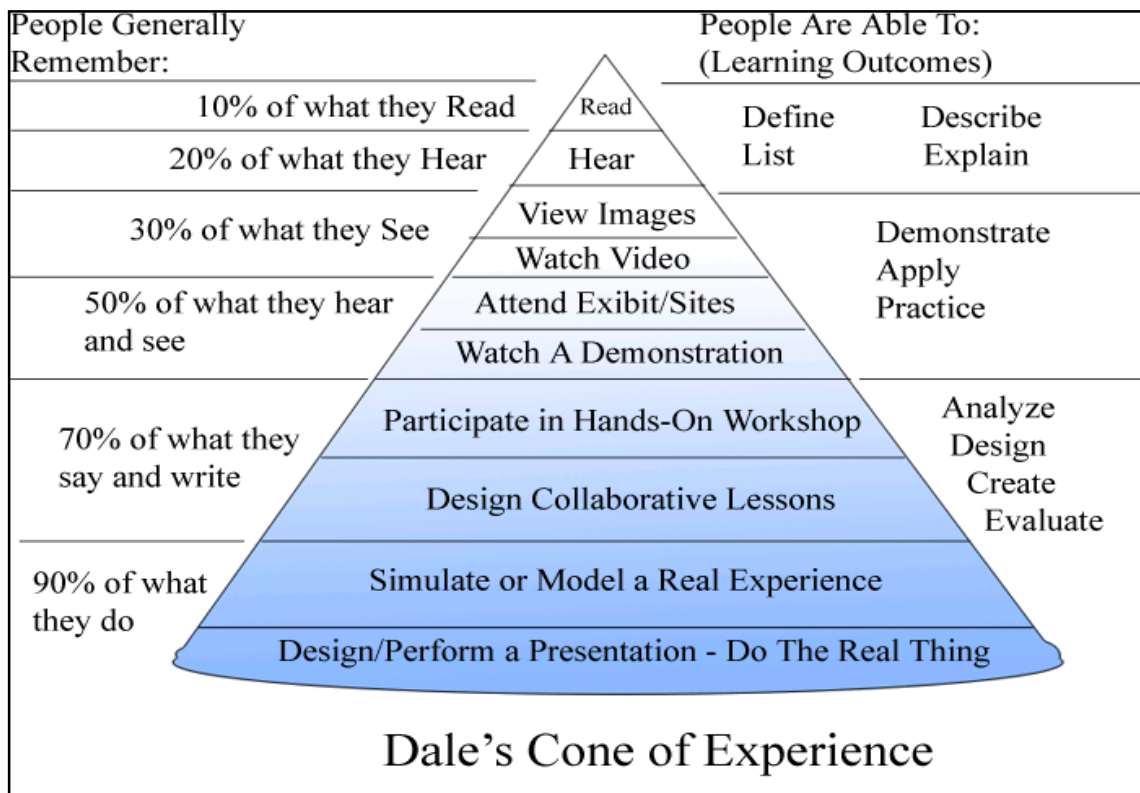
Figure 1: Edgar Dale Cone of Experience

Table 1: Business Studies Syllabus Coverage When Using the Integrated E-Learning Approach

	STATEMENTS	YES	NO	NOT SURE
1.	I Cover a topic fast	6 (75%)	2 (25%)	0(0.00%)
2.	I cover my syllabus on time	5 (62.5%)	0(0.00%)	3 (37.5%)
3.	Allows student revision of the syllabus	6(75%)	1(12.5%)	1 (12.5%)
4.	Many students are taught at same time	5(62.5%)	1(12.5%)	2 (25%)
5.	Teaching is done across classes	2(25%)	2(2.5%)	4(50%)
6.	Achieve lesson objective	6(75%)	0(0.00%)	2(25%)
7.	No repeat of content	4 (50%)		4(50%)
8.	Allows for extra time	4(50%)	2(25%)	2(25%)
9.	Simpler lesson preparation	5(62.5%)	3(37.5%)	0(0.00%)

Table 2: Syllabus Coverage when using the Integrated E-learning Approach

	Statements	Mean scores
1.	I Cover a topic fast	4.00
2.	I cover my syllabus on time	4.00
3.	Allows student revision of the syllabus	4.12
4.	Many students are taught at same time	3.62
5.	Teaching is done across classes	3.00
6.	Achieve objective	4.12
7.	No repeat of content	3.65
8.	Allows for extra time	3.25
9.	Simpler lesson preparation	3.62
	Total Mean Score	**3.70**