



Using Technology for Regular Teaching and Learning in Your secondary School English Class: A Content Analysis

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Abstract: *Technology integration in education is the expected bedrock of education in the 21st Century. It plays an important role in digitalizing education. The bulk of teachers in Zimbabwe expected to implement integration were trained for 20th Century education, thus they grapple with alternatives on the internet with limited skills. This study is a Content Analysis carried out to find out tangible ways of integration in the English Language classroom through a software, Moodle, which other parts of the world have adopted. The study dealt with three distinct regions purposively selected, the United States of America, Asia and southern Africa. Data on the use of Moodle in these regions from 2010 onwards was collected. The study employed the five-step qualitative data treatment namely i) collecting related data ii) organizing data for analysis iii) data coding iv) emerging themes and patterns and v) data interpretation. Findings indicated that in all the regions studied, Moodle has been widely adopted by teachers of English Language as a software of choice for integration. Teachers commend Moodle as a free, easy to instal, user friendly and ideal for non-programmers. Recommendations are that public schools in Zimbabwe should adopt a Bring Your Own Device policy for integration in the classroom at a wider scale as most schools have limited purchase power for digital tools, encouraging all schools to have websites and servers for easy adoption of LMS, teachers of English Language to take on board Moodle to enable technology integration for daily classroom activities.*

Keyword: Open Source Learning Management Systems; Content Analysis; Technology Integration

1. Introduction

Most public schools and even some private ones in developing countries are generally unable to provide adequate material for technology integration in everyday activities in their classrooms. At the same time, the same students in secondary school classrooms of these countries, the majorities of them own smart phones which they cannot bring into these classrooms (Murray, 2019). Attitude surveys across the globe show that the majority of both the teachers and parents do not want their children to bring phones into their classrooms despite the fact that they agree that smart phones can enable the full implementation of integration of technology in the day-to-day learning activities in the classroom (Dhliwayo & Muchemwa, 2016).

Learning in the internet age demands a paradigm shift in the way classroom activities take place across the globe (Savvidis, 2016). Educators everywhere have to agree that ignoring technology in one's classroom is educating students for uselessness in the future. It is a true propound that teachers today at all levels of education must teach

skills for the future today (Murray, 2019). This entails that all teachers must have sufficient knowledge on integration of technology in the classroom to help in the development of a diversity of skills in the students (Savvidis, 2016). Modern education skills aimed at in every classroom are critical thinking, communication, problem solving and team work (Dokora, 2015). Students, especially in lower grade levels up to secondary school education, spend the greater part of their day in the classroom, therefore, classrooms should develop the 21st century students with IT associated skills.

The internet age teacher faces a dilemma in terms of what works and what doesn't. There is a plethora of information on the net as to how teachers should be teaching digital natives in today's classrooms. Sifting through all that information and choosing that which is compliant with each teacher's classroom is the greatest challenge where digital teaching and learning is concerned. Recently, there has been a lot of information on the net on the beneficial uses of Moodle for blended learning in the classroom (Rheume, 2016). Moodle can be defined as an open source cybernetic learning setting (Savvidis, 2016). It is also referred to as a Learning Management System (LMS).

Because Moodle is not profit making, it therefore provides a cost effective answer for both classrooms and individual learning (Murray, 2019). It will be interesting for teachers to find out how other countries and other secondary school classrooms in the world have utilized this LMS.

1.1 Statement of the problem

Digital gadgets have become common place across the globe even for poor developing countries. As such integration of technology or digital instruction in the classroom for the bulk of classroom activities is what all educationists wish would prevail in their classrooms. However, many public schools are still under blanket bans on technological gadgets such as smart phones and tablets. Most public schools in most developing countries across Africa are not able to provide reasonable ratios of learner computer usage (Fort, 2014). Were schools to lift digital bans from their schools and adopt the 'Bring Your Own Device (BYOD)' policy, how would teachers utilize these gadgets without compromising learner performance in performance and exit examinations?

While educationists agree that digital gadgets like the smart phone and tablet can go a long way in revolutionizing education, they also agree that they are trying to find a productive way of adopting them into classrooms without causing disruptions and sending pass rates plummeting because of social media and unsavory sites. This study, which is a content analysis, aims at finding out how other countries have adopted Moodle as a tool for digital learning in their classrooms with success. The study will focus on America, Asia, Southern Africa and Zimbabwe.

1.2 Research Questions

1. How does Moodle work as technology integration for blended lessons in the English Language classroom?
2. Is Moodle being used with success by other countries in the world in their English classrooms?

2. Literature Review

Literature has it that teachers of English language affirm that blended learning using technology tends to increase time-on-task, which generally translate into improved performance (Bennet& Maton, 2010; Bentley, 2017). However, the dilemma that most of these teachers face is which gadget to use and which software is most appropriate for their secondary school learners without negatively affecting students' performance (Bentley, 2017). Rheume (2016) alludes that it is profitable to resort to learning Management Systems when using technology in the classroom, one of which is Moodle. It is important to define and discuss what Moodle Cloud is and

how it works for the English classroom as blended learning.

2.1 What is Moodle Site?

Moodle, generally referred to as Moodle LMS, is a nonprofit Learning Management System (LMS) used for blended learning in the classroom (Dent, 2017). Moodle creates online environments suitable for classroom teaching and learning. It is also defined as an online classroom, where the teacher uploads texts, assignments, create a chartroom, accepts tasks from learners and discusses as a class on the go, anywhere, as long as there is internet (Dent, 2017). One thing most profitable with Moodle for the English Language teacher is that it supports expanded classrooms, students learn equally well inside and outdoor, allowing others into their classroom, as long as they can log in (Bentley, 2017).

Moodle is also open source. This means that it has a basic framework, which if need be, can be augmented to suit each user. The Moodle software is free, one does not need licensing, and is downloaded to the school server preparatory for use (Murray, 2019). According to Murray (2019), Moodle is web-based therefore, it is user friendly on all platforms and comes with privacy which is not possible with cloud based LMS options. Because of its characteristics, once a school has a server, any teacher can download and customize the software without the need for a course in programming. Thus the English language teacher can customize Moodle for his/her needs without any hustle.

As LMS, Moodle is said to be the most commonly used as an open source education management platforms generally on the internet by reason of the prospects it offers to teachers and learners (Bennet & Maton, 2010). This is because Moodle is compliant with 21st Century methods of learning that favor collaborative learning and it is also said to easily enable interactions between and among teachers and learners. This Moodle is undoubtedly possible because of the tools that are available within the software itself, which includes quizzes and educational games (Alzouebi & Sallam, 2014). Moodle thus encourages innovation in classroom activities and together teachers and students have room to explore concepts and to create new approaches to learning, especially in the Languages department.

2.2 How Moodle Works for the Classroom

As an open source LMS, Moodle is designed to provide its services easily to non-programmers (Murray, 2019). An open source means that it offers a basic framework on which users can augment with additions conceivable of choice. These additions can be for assessment, reports, collaborative learning, site security, communication alerts, just to name a few (Moodle, 2019). The following are the steps a school or department has to take to get

started on Moodle in their classrooms for blended learning (Murray, 2019):

1. Download to your school server, the Moodle software, you do not need a license fee. This makes it easy to install to your server and thus providing users with privacy options of one's choice. It is adaptable to the whole school or just for a small group which can be a department.
2. When the software is on your server, you can start customizing the program to suit your needs, this is usually done using the drag-and-drop interface, adding plugins of choice. This is all you need to have a functional Moodle system for your learners.
3. Train users on how they will use the software. They will definitely need to have login specifications to become lawful users and to access the software for classroom practice.
4. If it's for the whole school, you need to have one system manager for the Moodle to answer user questions, trouble shoot and so forth.

The beauty of Moodle is that all learning happens in Moodle. And for those who need further training in Moodle operations they can log on to VerveEd, which is also free training online for new users who need help. The most significant feature is to download plugins and install then use. Using Moodle allows you to do it the way you want, the teacher is only limited by his / her imagination. Given that the current learner is a digital native, they would know how to navigate and update the software more than the teachers themselves, which is an added advantage for an innovative positive teacher (Murdock, 2019).

The following are some of the plugins that teachers generally use Moodle for in their classrooms for English Language learning:

1. Creating student blogs to boost collaborating, writing and reading.
2. Chat rooms for classes to carry out discussions inside and outside school
3. How-to, reviews and podcast lessons
4. Encouragement of collaboration through peer review and perspective – taking
5. Book discussions online in terms of comprehension and literatures
6. Quizzes
7. Gallery approach to projects in composition writing and story telling
8. Instant mail for communication between teacher and students
9. Applauding learners through awarding them badges for best write-ups like essays and comprehension or spelling work (Dwyer, 2017).

2.3 How Other Countries Have Adopted Moodle for the Classroom

Technology integration has taken center stage in educational circles across the globe (UNICEF, 2016). Research has it that today's learners will find themselves in need of skills which are not being trained today because of the fast rate at which technology is advancing (OECD, 2016). The world today has been overtaken by technology through smartphones. Most schools across the globe have blanket bans on them from their schools both at primary and secondary level (UNICEF, 2017). This technological explosion has awakened educators and all stakeholders in education to seek ways of integration with positive output through improved performance in the classroom. It would be interesting and beneficial to find out how countries across the world are integrating technology successfully in their secondary schools classrooms in the area of English Language instruction and learning.

Research in the United States of America indicate that Moodle has been extensively adopted in classrooms in public schools across states (Murray, 2019). Educators in the USA are using Moodle as an LMS of choice for collaborative learning, assessment, reporting, communication between teachers and learners and for daily classroom activities in English language education (Murdock, 2019). According to Murdock (2019), the USA is showing that teachers are creating English language classrooms through Moodle where there is sharing, creativity and interactive workshops for their learners. Thus, Moodle is a success story in the United States of America in terms of classroom practice in the instruction of English Language.

Teachers using Moodle for their language classes acknowledge that Moodle helps them execute their duties better, help them acknowledge each student at their best. This is possible for example, Moodle allows students to acknowledge each other in post, summarize other learners' points before they present their own ideas; in other words Moodle offers learners the time, space, support from peers and a chance to participate at their maximum (Dougiamas, 2019). It is also a chance for an introvert to find voice in discussions and they can actively take part in the classroom education process.

Teachers in the state of New York, applaud Moodle for what it is doing in their K-12 learners; Moodle allows for trial and error in its use with first time users be they teachers or students (Murray, 2019). These teachers are saying that Moodle is a great place for instructional discussions and a blending platform for both teachers and students. Activities like reading notes from the teacher, making own notes and posting, doing homework and posting for marking on the same platform. Moodle is a complete classroom activity that has total teacher involvement and control of the progress in time as they are happening. With Moodle, no teacher or student is absent from school or from the classroom, as classrooms have

been expanded, it is the best tool for online learning and face to face learning as well. Moodle is the answer for teachers in promoting blended learning compliant with modern methods of teaching (Dougiamas, 2019).

In New Jersey, Moodle has been adopted by teachers as an easy to navigate platform which has enabled educators to connect with their counterparts for information, discussions and helps while connecting with their students for lessons, projects and classroom activities (Dwyer, 2017). Teachers have room to share resources with counterparts wherever they are as long as they have internet, and other learners can be allowed to get into others' classrooms (with permission of course), and enrich each other's content. This in essence improves grades in English language in all its facets; comprehension, composition or spoken activities. With Moodle, teachers report that they can upload listening lessons where learners listen to clips before responding to given questions or quizzes (Cooch, 2015). Moodle thus allows teachers to be effective facilitators of learning in their classrooms and schools.

21st Century teachers like their digital learners accept and acknowledge that they are no longer the experts and learners void receptacles to be filled, thus Moodle is making their new role of learning facilitator in English language learning more easily attained. Although most teachers are used only to face-to-face teaching and learning situations, however, Moodle makes easy and attainable the transition to blended learning through the power of the net (Cooch, 2015). Teachers acknowledge that the aspect that Moodle allows for collaborative learning where learners can also engage in peer assessment is its critical tool in language learning.

In Al-Alain, a study was carried out to investigate teacher perceptions on using Moodle as an LMS for their classrooms. Moodle was being explored as a tool for improving students' motivation and the prospects it has in differentiated teaching (Alzouebi & Sallam, 2014). The research findings were that teachers were very affirmative in terms of upholding Moodle as a tool for integration in the classroom. In the UAE, technology has been long adopted as a tool for this century education, such that stakeholders in education are carrying out researches to find the best software to do so in the classroom to enhance performance and students learning. Moodle is adopted across the region as the best and most user friendly tool to achieve enhanced learning, especially across English language classes (Yaman, 2010).

Abu Dhabi Educational Council (ADEC) made e-learning a policy of its education as critical for effective curriculum implementation (Private schools Policy Manual, 2013). The UAE's education system is characterized by competitiveness and evolving technology such that Moodle in an English language classroom was adopted by many schools to meet the demands of the policy and to

compete favorably in the education field (Alzoueb & Sallam, 2014).

The UAE is said to be the leading country in the whole of the Middle East when it comes to adoption of e-learning in its schools and web based education (Alzoueb & Sallam, 2014). Teachers in the country acknowledge that since they adopted Moodle for their classrooms, grades have gone up and learners are much more motivated and it has enhanced participation. This is said to have enhanced collaborative learning and improved teacher skills in technology integration in the classroom (Tea, 2014). In the UAE, Moodle has become the most preferred LMS and teachers have adopted it for its feature which include besides classroom activities feature, assessment, grading, and video and also for easy communication with both learners and other teachers.

In Dubai, studies show that teaching of English as a language in schools has been greatly improved through adoption of Moodle. Moodle has curtailed absenteeism due to poor performance in English language for it made grammar and spelling much more manageable through the tools embedded in Moodle (Fayed, 2010). Teachers in Dubai also describe Moodle as a complete package of e-learning, well organized and user-friendly for both learners and teachers, which encourages collaborative learning and facilitating on the part of the teacher (Alzouebi & Sallam, 2014). It is evident that teachers in the UAE find Moodle an LMS of choice for their English Language teaching with success and recommends it for teachers everywhere.

A research was recently carried out to investigate usage patterns and prevalence of LMS that are open source in South Africa and prevalence was found to be more in higher education rather than in secondary schools (Love, 2018). According to this research, Moodle is adaptable for use at all levels of education because of the opportunities it offers as a web-based classroom especially in blended learning. South African schools, mostly private schools have adopted Moodle and teachers using the LMS are expressing their delight and excitement at how their English classes have been transformed and walls expanded resulting in improved performance among learners.

South Africa as a country is vigorously promoting e-learning for modern learners in secondary schools with a lot of success because of the wide implementation of Moodle for virtual classrooms (UNICEF, 2017). Research carried out in South Africa to assess sustainability of the use of Moodle in schools showed that an extensive variety of schools had adopted its use as a form of e-learning and that both teachers and learners applauded its adaptability and user friendly features for both teaching and learning and classroom administration (UNESCO, 2015). For the English language class, teachers in South Africa are agreeing with other teachers globally that Moodle

improves learning, expands classrooms and support collaborative learning which the finest way to learn a second language.

Botswana is fast transforming its education system to be in line with its middle income economy that it has become and this has seen a significant number of its schools, both private and public, adopting the Moodle LMS as an integrating tool for modern teaching and learning (World Bank Symposium, 2018). Teachers in Botswana are of the opinion that technology should be fully embraced in education to improve lives through a thoroughly prepared generation. These same teachers recommend the adoption of Moodle as a blending tool in all classrooms and more so in English language classrooms (Tladi & Bagopi, 2012). Schools that have embraced Moodle in Botswana cite Moodle as ideal because it creates classrooms anywhere anytime on the web making especially English language learning more accessible and easier for both teachers and learners (UNICEF, 2016).

For the purposes of this study the researcher was unable to find online any record of adoption of Moodle for public secondary schools classrooms in Zambia. However, a survey was conducted for university education and the finding was that teachers indicated a need for training in using Moodle (Chewe, 2018). There is a very low uptake of Moodle in the classroom in public schools in Zambia as indicated by a lack of literature in the area (UNICEF, 2018). However, Zambia is country in southern Africa that is briskly encouraging blended learning in its public schools and literature shows that some schools in the country have adopted e-learning through projectors, laptops for learners and smart boards (World Bank Report, 2017).

Zimbabwe has on record one primary school that has adopted Moodle for its web-based learning (Bhebhe, 2018). The private primary school is in the Matabeleland South region and it is a mission school. The other educational institutes that have adopted Moodle belong to higher education (Moodle net, Zimbabwe, 2018). Zimbabwe is another country in Southern Africa which is actively promoting eLearning in its schools. Most public schools have adopted eLearning by using power point lessons and computer research for learners (UNICEF, 2016). Moodle is relatively unknown in secondary schools in this country from a recent Moodle survey in the country (Moodle net, Zimbabwe, 2018).

3. Methodology

3.1 Research Design

This study is a Content Analysis, a research procedure which engaged to make operative inferences by interpreting and coding related data. It is a Corpus based descriptive research using a five-step qualitative data

treatment namely (a) collecting related data (b) organizing and preparing data for analysis, (c) coding the data (d) identifying patterns and themes, and (e) interpreting the data. By adopting Content Analysis, the researcher was able to work on large amounts of textual information and systematically identify, categorize and excerpt information desired to answer research questions of the study.

3.2 Data Collection

The researcher purposively sampled countries outside her country's region which are counted as giants in eLearning and have shown a lot of progress in the use of Moodle as an integrating software in their schools. These countries are the United State of America and the United Arab Emirates. From there, the researcher investigated the use of Moodle in countries in southern Africa; these are South Africa, Botswana, Zambia then finally Zimbabwe. The researcher then collected data from researches on how these countries use Moodle for technology integration in their classrooms in public schools dating back from 2015 to date. Emphasis was on abstracts, introductions, conclusions and recommendations. The researcher chose this technique due to the objective of the study, which sought to assess whether Moodle can be viably used to turn classrooms into e-learning hubs with a view to recommend for adoption depending on the findings in the area. Technology integration in education is the by-word in education today and has attracted a corpus of studies by educationists in a bid to transform education to suit modern present day demands on human resource.

3.3 Data Analysis

Data Thinning: The first phase on data analysis procedure was data thinning. Only significant data, that was needed to answer the research questions, remained. The data was organized ready for analysis.

Data coding: The researcher went on and identified patterns and common categorizations in the data and prearranged it into smaller entities in accordance to research questions preparatory for coding. Codes were set to the units of analysis: how Moodle works as technology integration in the English classroom at secondary school level and how teachers in other countries the world over have adopted Moodle for their English Language classrooms and if they were successful and if their success is transferable to Zimbabwean classrooms. The coding was manually done reading through texts and physically writing down concept manifestations. This approach allowed the researcher to examine the data relative to the research questions to the study.

Identifying patterns and themes: When the coding was done, the researcher went on to examine the data collected and an attempt to identify patterns and themes in the generated research question units.

Data interpretation: The researcher compressed findings into a coherent report drawing conclusions and generalizations on the findings.

3.4 Reliability and Validity

Issues of reliability and validity for qualitative research, precisely in content analysis should be emphasized (Writing@CSU, 2017). Reliability is defined as content analysis study's stability, where coders consistently recode similar data in the alike way over time. In this research, the researcher did a systematic coding observing implicitly the units into which countries were sampled and with focused reference to the research questions. The resultant findings means if the same data is collected again the same information is obtained

Validity was achieved through the chosen procedure which made it possible to avail valid responses to the research questions. Therefore, the researcher decisively worked to overcome content analysis shortcomings by objectivity in data collection evident in the diversity of countries sampled, systematically coding, following research rules on data analysis and ensuring reliability and validity. This whole process made possible the generalizability of findings.

4. Results and Discussion

4.1 Emerging Themes

When interpreting the data, the following themes emerged:

Learning in the internet age requires integration

This study revealed that learning in the internet age requires integration in the classroom. Research in the UAE highlighted the need to employ modern methods of teaching and learning. Teachers in these countries were affirmative in upholding Moodle as a tool for integration (Alzouebi & Sallam, 2014). In the USA teachers have shown that expanded classrooms are a must in the global village (Cooch, 2015). Education as a system cannot maintain relevance without technology integration in this century. This is a dilemma that stakeholders are grappling with globally as to how the integration is to be realized (Bengfort, 2016). Across countries studied in this study, it is clear that learners are noticeably attached to their phones and that smartphones are very visible among this age group than in other demographic groups in most societies (Fort, 2014).

Teacher dilemma on what works on the web for the classroom (performance & pass rate)

Teachers of 21st learners acknowledge that they are being forced by trends to make a visible paradigm shift from traditional methods of teaching to modern methods that include internet integration (Murray, 2019). Across the globe there is a call to shift to eLearning as a basic concept

for teaching modes. However, the dilemma that teachers are facing is knowing what works and how it works in terms of software for integration (Savvidis, 2016). This is occasioned by a plethora of software advertisements on the internet such that educators become confused by them. The situation is made worse by the fact that digital natives know much more than their teachers when it comes to technology, they are more versatile on the computer than most teachers (Savvidis, 2016).

Teacher efficacy is a major player in the adoption of technology in the English classroom (Clark, 2013). When the teacher is uncomfortable with technology in his classroom, rarely would he adopt for everyday use with his class. It is difficult for teachers who are themselves not experts of internet technology to sift through the 'forest' of information on the internet and decide what works for their classroom. Here is where teachers need a software that takes care of this basic problem where digital teaching and learning is concerned (Murray, 2019). As such, Moodle has been hailed as providing such services as a user friendly LMS for the classroom and adaptable even with teachers who are not programmers (Dent, 2017).

What is Moodle?

It has emerged from this study that Moodle is a Learning Management System, a software that teachers can use with their English classes to integrate technology for everyday classroom activities (Chewe, 2018). It is an open source and thus can come with a basic frame that can be augmented to suit individual users. The beauty of the software is that it is free and easily adaptable as long as one has internet, a server and a website (Murray, 2019).

How Moodle can be adopted

In order for a teacher to adopt Moodle software for the classroom, they must first download the software on their school server, this can be done for the whole school or for just the English department (Murray, 2019). Thereafter, the teacher can begin customizing the software to suit his/her individual needs. The software becomes functional for the class. The teacher then enrolls his/her students online through email addresses and passwords for each individual students. The good thing about Moodle is that one can be guided online on how to carry out the whole process both as a How-to and also on YouTube. The other advantage is that present-day learners, whatever their ages, are quick to adapt and will help the teacher if he/she is forthcoming to install and use the software (Fort, 2014).

It has emerged that once Moodle is up and running and students are using it for their English lessons, they would want to use nothing else (Gougiamas, 2019). Integration is made easier, classrooms are expanded and even the introvert quickly becomes vocal on the platform and airs their views with equal recognition chances in the classroom.

How countries that have adopted Moodle are using it.

Research has revealed that in countries that have adopted Moodle as an LMS of choice for the English classrooms that it is user friendly on all its platforms and comes with privacy options (Murray, 2019). English Language in total is taking place on Moodle with learners helping each other and the teacher to manage and update the software increasing collaboration, essay writing and reading skills, helping teachers thrive in their new role as facilitators (Dwyer, 2017; UNICEF, 2017). Research shows that teachers are using Moodle not only for teaching English assessment, grading video and communication within the class. According to Tea (2014), Alzoueb & Sallam (2014) Moodle impacted positively on English learning in UAE, it was reported that grades went up, learners showed motivation and participation was high, which included introverts.

5. Conclusion and Recommendations

5.1 Conclusion

1. In all the regions studied, Moodle has been widely adopted by teachers in English Language classrooms as a software of choice for integration.
2. Teachers commend Moodle as a free, easy to install, user friendly and ideal for non-programmers LMS.
3. Moodle helps to adopt a Bring Your Own Device into the classroom for easy and wholesale integration for English language classrooms which would include smart phones.
4. Moodle expands classrooms and enables creation of modern 21st century classrooms which are wall less and facilitate learning on the go which improves language acquisition for second language learners.

5.2 Recommendations

1. Recommendations are that public schools in Zimbabwe should adopt a 'Bring Your Own Device (BYOD)' policy to enable integration in the classroom at a wider scale as schools in the country have limited purchase power for digital tools.
2. Encouraging all schools in Zimbabwe to have websites and servers for easy adoption of LMS in schools and classrooms.
3. Teachers of English Language to take on board Moodle to enable technology integration for daily classroom activities.

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