A CALL-based approach to understanding the concept of character and characterization in literary texts: A case study of SHS three "B" learners of Chereponi SHS/T in the North East Region

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Abstract

There is a growing body of research on Computer-Assisted Language Learning (CALL) pedagogical approach in the educational setting over the past two decades. This paper, therefore, scrutinized the pedagogical implication of integrating CALL in teaching character and characterization in literary texts. The objectives of the study were two-fold: first, it assessed CALL as a pedagogical innovation and, scrutinized its application and implication on the teaching of literary texts. There are three major findings. First, the study revealed that CALL integrated literature lessons are informative compared to non-CALL based lessons. Second, CALL integrated lessons have an audio-visual appeal and, finally, CALL based lessons develop in learners the ability to critically think through a literary text. The study has pedagogical implications.

Keywords: audio-visual, CALL, critical-thinking, informative, innovation

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1. Introduction

There is a growing body of research on Computer-Assisted Language Learning (CALL) pedagogical approach in the educational setting over the past two decades. Justifiably so, CALL is touted as one of the best language learning approaches that promote creativity in the classroom (Cropley & Cropley, 2016). This fact and other affordances of CALL has thus, maximized its use in the 21st century language education classroom. For instance, Carless talks about the major increasing innovations in the classroom today and argues that CALL is obviously a leading technological development. He states thus, "Examples of innovation in language education over the past few decades include new pedagogic approaches, such as TBLT; changes to teaching materials; technological developments, such as CALL; and alternative assessment methods, such as the use of portfolios" (Carless, 2013, p. 2689 cited by Chapelle & Sauro, 2017, p. 7).

The deployment of CALL in the pre-school, English as Foreign Language (EFL) and tertiary classrooms is considered as an innovative teaching approach which aids relatability *inter alia*, and affords learners a high absorption rate of learning experiences. By innovation, Rogers states that it is "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (Rogers, 2003, p.12 cited in Chapelle & Sauro, 2017, p.7). CALL is said to serve as the linkage between technology and the physical classroom in the new information era we find ourselves (Lee, 2000).

The significant quantity of empirical studies conducted on the immensurable learning opportunities of computer-assisted teaching and learning to facilitators and learners alike since the past two decades have covered the writing, speaking, grammar, and spelling aspects of language (e.g., Lee, 2000; Zhao, 2003; Felix, 2005; Stockwell, 2007; Conole & Warburton, 2005; Cropley & Cropley, 2016). The findings of these studies reveal that CALL brings about improved language proficiency. This is because the various CALL-based lessons were presented in lively but practical terms, such that, the learning target in these aspects of language learning were easy to relate to. Thus, learners were far able to relate to the learning target as a result of the electronic but visual display of, and interaction with the learning target compared to an abstract delivery of the same. Admittedly, some of these studies have been reviews on the development of technology in the 21st century. Thus, revealing and proving that CALL in general is pedagogically useful to both learners and facilitators in the educational setting. The specific focus of those studies, as we have already said, the pedagogical importance of CALL for language teaching and learning. How relevant CALL is to the teaching and learning of literature and literary texts in particular is, however, still opened to debate.

This paper, therefore, attempts to scrutinize the pedagogical implication of CALL integration to the teaching of literary texts in literature-in-English. During a semester-long period of teaching observation at the Chereponi Senior High/Technical School (CHESTECH), the researchers observed that during a discussion on characters and characterization in a literary text, the SHS Three "B" learners found it difficult to understand the learning target (the concepts of character and characterization). The researchers have taught this lesson over and over again using typically the traditional pedagogical approach (without CALL-integration). We, therefore, sought to assist the learners improve their understanding of these concepts through a CALL-based approach. In this study therefore, the researchers attempt to shed a significant light on how the deployment of CALL to the teaching of literary texts enhanced the learners' understanding of the aforementioned literary concepts. The objectives of the study are two-fold: first, it assesses CALL as a pedagogical innovation and then, scrutinizes its application and implication on the teaching of literary texts. Specifically, it is focused on using image-audio-video PowerPoint

presentation blended with facilitator demonstrations and illustrations to consolidate the understanding of the concepts of character and characterization in literary texts. The purpose is to explore the potential contribution of CALL as a technological innovation in the educational classroom. To proceed, we attempt to locate the concept of CALL followed by a review of the related literature. Following this is the Methodology and the Data Analysis. The Discussion of Findings and Conclusion sum up the study.

2. The Concept of CALL

As already established, the acronym, CALL, stands for Computer-Assisted Language Learning. As the name suggests, it is a computer-related concept whose emergence is traceable to the early 1960s when the PLATO project was engineered at the University of Illinois (Marty, 1981). In respect of what it means, Levy (1997) succinctly writes, "it is the search for and study of applications of the computer in language teaching and learning" (p.1). Put simply, CALL is a technological integration model employed in language learning in the classroom. As a form of technological innovation in the educational setting, CALL is purposefully for enhancing and increasing understanding of what is being taught and/or learned. CALL manifests in the form of mobile tech, computer tech, or any other computer-related application which affords facilitators and learners innovative opportunities to approach teaching and learning in the best possible but practical way. By this means possible, CALL, is thus, capable of making teaching and learning an individualized engagement (Davies et al., 2011).

Since its advent, CALL has evolved to include the use of multimedia such as adapting texts, graphical images, sounds and animations, amongst other interactive media of communication, into language pedagogy for effective teaching and learning in the educational setting. This involves the blending of CALL with the traditional face-to-face teaching in the classroom or the educational setting to maximize understanding. This integration approach is technically referred to as Blended Learning. Pegrum (2009) observes that blended learning, which is a combination of CALL and face-to-face teaching and learning, "increases learning potential" (p. 27).

As a multimedia technology, Davies et al. (2011) argue that the integration of texts, images, sounds and video into language lessons in the classroom potentially develops in learners the four basic skills of listening, speaking, reading and writing. The educational implication of CALL is enormous. Amongst other things, CALL is reported to afford language facilitators new varieties of tools and materials for effective classroom engagements (Cutrim, 2009).

Felix (2008) reports that CALL as a multimedia integration in the classroom is effective, meaningful and impactful, and therefore, encourages facilitators to chart this new technological direction for improved but quality delivery of teaching and learning targets. According to Felix, the successful integration of CALL in the language classroom has a very positive bearing on learners' spelling, reading and writing. Objectively, every language lesson is developed to solve a learning problem. CALL, according to Felix, effectively achieves this objective by dint of the varied interactive multimedia infused into the lesson.

In this study, we employed the Image-Audio-Video content strain of multimedia. As the name suggests, this is the amalgamation of images, sound and video into a single content presented on a PowerPoint for the purposes of teaching and learning. It is a strain of multimedia integration or a strain of CALL integration in the classroom succinctly described as Integrative CALL by Warschauer and Healey (1998). According to Warschauer and Healey, the Integrated CALL looks broadly at the integration of multimedia such as texts, graphics, sounds and animations into computer mediated communication. The purpose is to present the target lesson in more interactive ways. The emergence of Integrated CALL relieved the overdependence on the computer for drills and tutorial purposes. We will describe and discuss further our choice of the Integrated CALL, and how we developed the Image-Audio-Video content in Subsection 5.1.

3. Review of Related Literature

Several research works on CALL maintain the idea that it is a technological field with the potential to improve learning. For instance, Lee (2000) studies English teachers' use of CALL in the classroom and found out that the reasons for using Computer-assisted Language Learning include: experiential learning, motivation, enhance student achievement, authentic materials for study, greater interaction, individualization, independence from a single source of information, and global understanding. Further, Chang and Hsu (2011) examine how EFL learners' reading comprehension could be improved using a mobile-assisted synchronously collaborative translation–annotation system. They found that "the CALL system provides EFL learners with the reading-assisting functions of instant translation, annotation, and instant multi-users sharing vocabulary annotation" (p. 173).

Nachoua (2012) investigates the effectiveness of CALL for improving students' listening skills and found that CALL is an appropriate tool for enhancing the skills of listening because it creates a motivating background for learning. Additionally, Tsai and Talley (2014) explore the impact of a Moodle-supported strategy instruction on both reading comprehension and strategy use among EFL (English as a Foreign Language) students. They found that students' performance in reading comprehension had improved after an experimental course was implemented. This notwithstanding, a significant quantity of review studies on CALL have been conducted. Zhao (2003) for example, analyzes published research form referred journals from 1997 to 2001 by looking at potential of technology for improving language learning. He found that the quantity of technology application in language learning is very limited.

Also, Stockwell (2007) examines CALL as a technological field by focusing on the types of technologies, technological choice as well as how these technologies fit into the classrooms. He collected empirical articles from 2001 to 2005 from four major English language journals on the field of CALL. From the extant literature, it is evident that there are enormous classroom affordances with CALL. Aside from enhancing motivation, the research literatures indicate that, all things being equal, CALL appropriately improves the reading, comprehension, listening, speaking, and vocabulary skills etc., of learners who are taught with this new technological affordance. All the aforementioned skills are specific aspects of language and not literature per se. Since CALL is not discipline-biased, the current paper seeks to explore how its application to teaching character and characterization in literary texts will enhance understanding of the concepts in Literature-in-English education.

4. Methodology

In this section, we describe the design, the research setting and study area, the population and sample size and conclude with the instrumentation.

Research Design - This study is an action research design which solves a particular learning problem of learners in the classroom. We adopted the mixed method approach. According to Mills et al. (2013), action research is a form of systematic inquiry carried out by teachers or other people in the educational setting to collect information about, and also improve upon the ways their educational setting operates including their teaching, and their students' learning. The particular learning problem of the SHS Three "B" learners of the Chereponi Senior High/Technical School (CHESTECH) is that they are unable to understand the concept of characters and characterization through a non-CALL based delivery of the concepts. The attempt made to avert this learning problem is the reception of CALL, specifically, the adaptation of image-audio-video content PowerPoint presentation. Table 1 below is an illustration of the type of technology adapted for this study.

Having assessed the suitability, reliability and validity of the above technology, the researchers set off and prepared the content of the slides. We blended the content with images and short videos in films of characters in action. Though the major concentration of the lesson is on characterization, the aim of teaching characters was to

facilitate and internalize the concept of characters to induce understanding of characterization proper. We then meticulously prepared a rich PowerPoint slide which basically had image-audio-video compositions with good transitions and animations. In the nutshell, the PowerPoint contains specifically adapted image-videos of fictional characters in films. We then did a slide-recording of the PowerPoint text to integrate audio tech.

Table 1

The types of technology adapted for this study

Technology used	Mode of delivery
PowerPoint Slides	Audio-visual
Computer	
Projector	
Speakers	
Short videos in films	
Images of fictional characters	

The Research Site and Study Area - Chereponi Senior High/Technical School, CHESTECH, is the research site for this study. CHESTECH is located in Chereponi, the district capital of the Chereponi District in the North-East Region of Ghana. The school runs General Arts, Home Science, Agric and Pure Science programmes. One of the core subjects that all the students in CHESTECH offer is English language. Though a core subject, Literature-in-English is part of the English discipline. It was during a lesson in Literature that the problem of the study was discovered. The study area, therefore, is the Literature-in-English discipline.

The Population and Sample Size - The total population of the SHS Three "B" is sixty (60) learners. The researchers included all sixty (60) learners during the teaching sessions. Equally, the entire population participated in the pre-test items. However, for the purposes of the analysis, a random sampling technique was employed, and a total of twenty (20) learners, ten (10) for each gender, were selected to represent the final sample size. Tables 2 and 3 represent the total population and final sample size respectively below:

Table 2

Population of SHS Three "B" Learners of CHESTECH

Gender	No. of Learners	Percentage (%)	Approximation
Male	38	63.33	63
Female	22	36.6	37

Table 3

Final Sample Size of SHS Three "B" Learners of CHESTECH

Gender	No. of Learners	Percentage (%)
Male	10	50
Female	10	50

Data Collection Techniques - The researchers employed observation, pre-test, post-test, and interview instrumentation techniques to gather data for the study. A period of two weeks was devoted to the observation of the learning behaviour of the SHS Three "B" learners. During this period, the researchers delivered lessons in the traditional style, that is, without any technological integration. The researchers observed learners' overall participation in their while-teaching questions. The participation and the overall responses to post-lesson oral evaluations during a two-time lesson on character and characterization signaled the fact that the learners could not attempt the questions on the basic concept of characters and characterization. This was followed by a pre-test to ascertain the severity of the learning challenge. In the section that follows, we present a tabular representation of the pre-test scores.

5. Data Analysis

Below is a tabular representation of the pre-test results of the learners.

Table 4

Frequency Distribution of Pre-test scores of the SHS Three "B" Learners of CHESTECH

Marks	Frequency	Percentage (%)
Below average (0-4)	12	60
Average (5-6)	6	30
Above average (7-10)	2	10
Total	20	100

In Table 4 above, the number of learners who scored below average marks, that is between the range of (0-4) were 12 representing 60% of the population. Those who scored average marks (5-6) were 6 representing 30% of the population whereas those who scored above average marks (7-10) were 2 representing 10% of the population. It could be inferred that the 60% is really an indication of poor performance of the learners.

5.1 Integrating CALL as an Intervention Strategy

Research has shown that when teachers employ best teaching practices; thus, when they use teaching methods which lead to the construction of knowledge by learners, the results is always high academic achievement (Anwer, 2019). In line with the principles of CALL, we searched through the net to identify the appropriate, suitable and accessible tools that could help us deliver the lesson on characters and characterization more effectively and efficiently. There is obviously the need for choice of technology, as Stockwell (2007) acknowledges, "the main reasons for choosing a particular technology may be due to the following: (i) Pedagogical objectives, (ii) Institutional decisions, (iii) Personal curiosity, and (iv) Trends and fashions" (p.107).

Our choice of the Integrated CALL, following Stockwell's reasons, aligns with the pedagogical objectives because "choosing technology on the grounds of pedagogical objectives means that a particular technology is selected due to specific enabling features of the technology" (Stockwell, 2007, p.107). These features include but not limited to accessibility, availability, accuracy, validity, clarity, relatability and useability. These are useability imperatives with the adaptation and integration of CALL. At the same time, we considered the user-friendliness of the technology we were intending to use to deliver an effective lesson. It was to the end that, our learners would not be affrighted to interact with and/or relate with the technology.

Whilst considering all of the above features of the technology but the friendliness of it, we were convinced to adapt images of characters, character types and a short video-film that could afford the learners the opportunity to visualize and relate cognitively with the concepts of characters and characterization. When we learnt of this poor performance, we designed a 60-minute image-audio-video content (audio-visual) PowerPoint where we integrated short-video of characters acting out specific roles in films as we have earlier discussed. This was then projected to the learners. The researchers allowed the learners to learn the concepts of character and characterization through the audio-visual PowerPoint tutorial with intermittent demonstrations and illustrations to consolidate their full grasp of the learning target. Like in language learning, Cakir (2006) observes that the integration of video and pictures in language teaching and learning makes the learning target authentic. Thus, the learner is able to visualize the learning target thereby increasing understanding. The choice for PowerPoint, pictures and short video-films is predicated on the premise that there is a significant linkage between this computer-based learning and learners' engagement (Burke & James, 2008).

With this understanding, the researchers approached the lesson this time using the audio-visual PowerPoint presentation. All images were downloaded from the internet which can be accessed via https://www.slideshare.net/kjhatzi/methods-of-characterization-presentation-673731;https://studylib.net/doc/818 1627/character-types, https://terprolina.weebly.com/jet-li-hero-full-movie-in-hindi-free-download.html, The customized PowerPoint template was accessed through the University of Education, Winneba website, @ https://www.uew.edu.gh/downloads/uew-branded-powerpoint-template .Below, we attach a quantity of shots of the CALL integration approach.
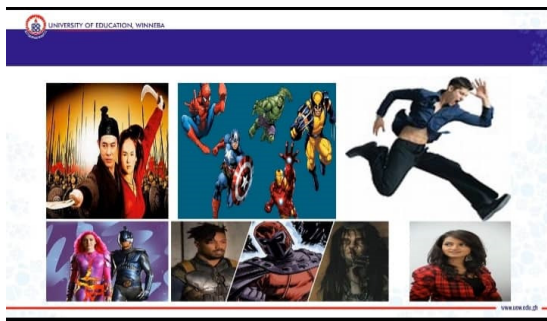
Figure 1. Images of characters integrated into short film ppt

A few slides show of audio-visual presentations of characters in a short video. The pictures of fictional characters help learners to visualize the concept of characters. More importantly, the short video (film) on the slides helps the learners to also create a mental image of how characterization is employed in the literary text thereby enhancing their understanding of the concepts.
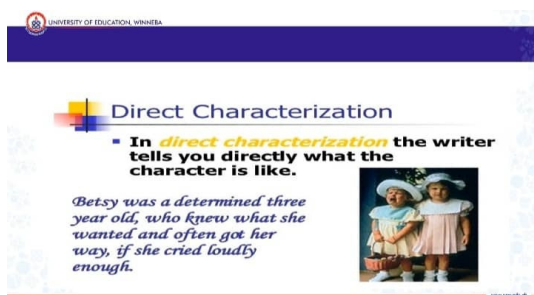

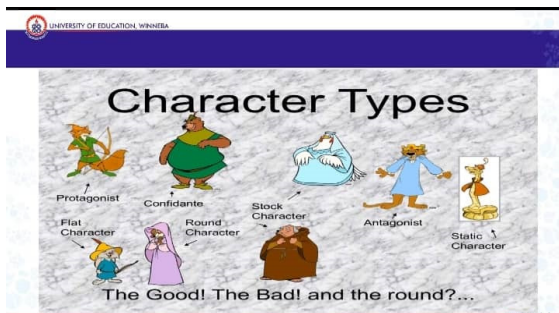*Figure 2. Direct Characterization in audio-visual ppt*

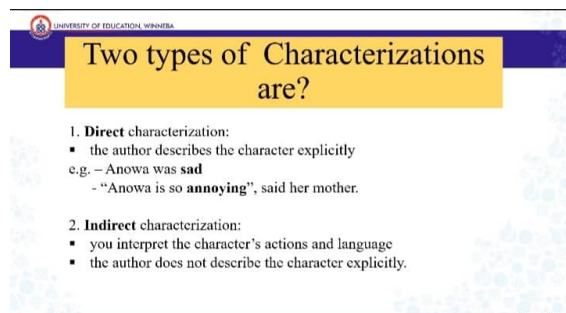*Figure 3. Character types in audio-visual ppt*

Figure 4. Types of Characterization in audio-visual ppt

According to Cakir (2006), "Video makes meaning clearer by illustrating relationships in a way that is not possible with words, which proves a well-known saying that a picture is worth thousand words" (p.68). In line with Cakir (2006), the purpose of integrating audio-visual PowerPoint presentation is to illustrate the concept for clarity of understanding. Thus, the learners could hear the characters speak or see them act and this helps to facilitate understanding of the concept of characters in the literary text. It is, also, to facilitate the establishment of a connection with the concept of characterization in the literary text.

After this intervention, the researchers conducted a post-test to assess the effectiveness as well as the impact of CALL integration on the learners' performance. Table 5 below illustrates the results of the post-test scores.

Table 5

Frequency Distribution of Post-test scores of the SHS Three "B" Learners of CHESTECH

Marks		Frequency	Percentage (%)
Below average (0-4)		1	5
Average (5-6)		3	15
Above average (7-10)		16	80
	Total	20	100

Table 5 above shows the scores of the SHS Three "B" learners after the implementation of the intervention strategy. As could be related to, only **1** learner scored below average (0-4) representing **5%** of the population whereas **16** of the learners representing **80%** of the population scored above average marks of (7-10). This explains a significant improvement of the learners' performance in this phase.

6. Discussion of Findings

In Table 6 below, we compare the pre-test and post-test scores to draw our conclusion in respect of the significant improvement of the learners following the implementation of the intervention strategy.

Table 6

Frequency Distribution of Pre-test and Post-test scores

	PRE-TEST			POST-TEST		
Marks	Freq.	Per (%)		Marks	Freq.	(%)
Below average (0-4)	12	60		Bel ave (0-4)	1	5
Average (5-6)	6	30		Average (5-6)	3	15
Above average (7-10)	2	10		Ab ave (7-10)	16	80
Total	20	100		Total	20	100

In Table 6 above, the pre-test scores for the range of marks (0-4) were **12** learners representing **60%** of the population. But after the researcher had intervened with the integration of CALL, the post-test results indicates that only **1** learner scored between the same range of below average marks (0-4) representing **5%** of the population. There is a drastic reduction in the percentage of learners who obtained below average scores in the post-test which informs the researchers that the CALL-based approach was impactful. According to Hubbard (2008), when facilitators see the need to integrate multimedia and pedagogy in the classroom, there is always a positive outcome. The positive results of the post-test therefore agree with Hubbard's findings.

In the same vein, there were **6** learners who scored average marks (5-6) representing **30%** of the population in the pre-test against **3** learners who scored average marks between the range of (5-6) representing **15%** of the population in the post-test. Again, this figure too shows a significant drop in the number of learners who scored average marks in the post-test which signifies an improvement in the performance of the learners. This performance is borne out of the integration of CALL and pedagogy. This finding also resonates with the findings of (Agangba & Ayiwah, 2019; Al-Aqad et al., 2021) who observe that integrating CALL such as audio-visuals increases performance of learners because it presents the learning target in a more practical way capable of inducing understanding.

Finally, whereas **2** learners scored above average marks ranging from (7-10) representing **10%** of the population in the pre-test, there were **16** learners who scored the same range of scores representing **80%** of the population in the post-test. This is the major talking point of the study. There is a greater improvement in the number of learners who obtained the same scores in the pre-test because of CALL. Anwer's (2019) assertion that when facilitators identify learners' learning challenges and approach them with the best practically-oriented pedagogy, it results in higher academic achievement is validated considering the researchers' approach of CALL towards solving the learning challenge of the learners. In our case, the indication of higher achievement is proportional to the number of learners who have performed exceptionally well in the given task. This is so because the CALL-based approach employed by the researchers is not only a multimedia technology but also a

practically-oriented design that meets the learners' learning need.

From the foregoing, the results of the post-test scores when juxtaposed to the pre-test demonstrate a hugely significant improvement in the performance of the learners. In this respect, the researchers became extremely curious to discover and/or ascertain the underscoring catalyst. Through an open-ended interview on the learners, the researchers learned that the lesson was highly informative as it combined multimedia in the strand of image-audio-video content. According to Tan et al. (2011), the use of video-content which combines images and audio components of tech makes a lesson very informative and induces learner understanding. Thus, the lesson content was beyond verbal delivery (as in the case of traditional pedagogy) to a multifaceted content (which is a combination of video-image illustrations, demonstrations, and practice). This means that the learners found the CALL-based lesson very informative compared to the non-CALL (traditional) approach which is basically delivered without any form of technological accompaniment. In conclusion, the learners' report shows that featuring technology in this respect is the conduit for the improved understanding of the concept of character and characterization, which coincides with their improved performance and as much resonates with the findings by Tan et al. (2011).

Further, the learners reported that the image-audio-video content had an audio-visual appeal. The researchers adapted a blend of images of characters, short videos of characters in action in films, and the audio presentation of the slides. These blends of technology served to consolidate the learners' skills of inference (when they were tasked to relate what was presented on the slides to what they find about the characters in the literary text) and, as much equipped their auditory skills. Thus, it was captivating and appealed to their senses (of sight and hearing) which compelled them to listen with knack and alacrity. Aside from this point of interest, it was revealed that the captivating nature of the lesson carried along all the learners: thus, it encouraged full class participation. It also dealt with boredom and redundancy because all the learners yearned to get to the end of the lesson.

Finally, the learners reported that since the lesson was multimedia-based, it induced their critical-thinking. Thus, they (the learners) could now carefully analyze and draw positive conclusions on characters in terms of what they say, do or what is said about them in the literary text following insights drawn from their observation of character traits of the characters employed in the short videos in the PowerPoint presentation. To the effect that this ability developed also enables them (the learners) to internalize the learning target with ease. This means that the lesson induced but sharpened the cognitive and critical-thinking skills of the learners. Stockwell (2007) and Nachoua (2012) note that with CALL, various skills set, including listening and speaking are developed. In this study, the ability of CALL to stimulate and develop the learners' critical-thinking skills is also indicative of its efficacy as a pedagogical model.

7. Conclusion

This paper scrutinized the pedagogical implication of integrating CALL in teaching character and characterization in literary texts. The study was conducted in the Chereponi Senior High Technical School where the researchers underwent a semester long period of internship. It is the realization of the researchers that in this era of technology, most facilitators in the literature-in-English classrooms are still teaching with little or no multimedia integration, the negative impact of which has been low academic achievement on the part of learners. The design is an action research design aimed at addressing a classroom problem. It used a sampled population of 20 learners. Observation, pre-test, post-test and interview were the main instrumentation of this study.

The objectives of the study were two-fold: first, it assessed CALL as a pedagogical innovation and, scrutinized its application and implication on the teaching of literary texts. There are three major findings. First, the study revealed that CALL integrated literature lessons are informative compared to non-CALL based lessons. Second, CALL integrated lessons have an audio-visual appeal and, finally, CALL based lessons develop in learners the ability to critically think through a literary text.

There is a pedagogical implication of this study. According to our findings, CALL-based lessons in literature are very informative, and thus, offer veritable worth of knowledge to the learners when aptly integrated. This pedagogical strength in earnest inclination, therefore, implies that the facilitator should be responsive and innovative by adapting CALL in the classroom aimed at meeting learners' learning needs in the classroom. It also implies that every facilitator who handles literature should acquiesce with the various suitable technological affordances available in this digital age and incorporate them in their literature lessons. Decidedly, CALL integrated lessons provide for learner's high academic achievement opportunities. Our findings confirm this prudential consequence. The implication, thereto, is that when learners remain receptive to CALL integrated lessons, it will go a long way to enhance their academic performance.

The findings have demonstrated that CALL is not limited to only language teaching but could extend beyond to include literature. However, this study was delimited to the teaching of this particular element (characters and characterization) of a literary text only and not all the elements nor all the topics in the literature-in-English syllabus. In terms of the interview instrumentation, it was delimited to only the learners and did not cover facilitators. Therefore, we recommend that further research should be conducted to cover other topics in the literature-in-English syllabus in order to give a logical but holistic assessment of the suitability of this pedagogical innovation to this discipline. Also, facilitators should be included in the instrumentation to find out their views on this technological innovation.

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