

# Effect of Digital Storytelling on Secondary School Students' Self-Efficacy in Civic Education

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**Abstract**—Over time, excessive dependence on traditional storytelling as a teaching technique can reduce the self-efficacy of most students, making them easy targets for drug abuse and trafficking. The digital storytelling technique depicts a range of possibilities for reversing the negative trend in the society today. The study examined the impact of a digital storytelling strategy on the self-efficacy of students in Civic Education. One research question and one corresponding hypothesis was generated for this study. The study employed a quasi-experimental design and the sample consisted of 183 students drawn from four secondary schools using purposive and simple random sampling technique. Civic Education Self-Efficacy Questionnaire was used to gather data. The instrument's reliability coefficient was 0.80, using the Cronbach Alpha. The mean and standard deviation were used to answer the research question, while the hypothesis was tested using Analysis of Covariance at 0.05 level of significance. The study showed that Digital Storytelling strategy had significant effect on students' self-efficacy in Civic Education than the conventional storytelling strategy. Based on the findings, it was recommended that students should be encouraged to participate actively during learning activities that incorporate the use of digital storytelling strategy to improve students' creative and critical thinking abilities. Civic Education teachers should be encouraged to adopt the digital storytelling instructional strategy when teaching civic education.

**Keywords**—digital storytelling, self-efficacy, civic education, drug trafficking, school students

## I. INTRODUCTION

Education is the lightest beacon of hope for all societies that seek to develop. The development of each society is directly proportional to the level of development of its citizens. In modern knowledge-based societies, such as Nigeria, quality education improves the prospects for society and human development. Education is considered a process of providing information to unexperienced persons to improve their physical, mental, social, emotional, political and economic abilities [1]. It is also the process by which human beings acquire the skills necessary to develop and conquer their environment in order to live a better life [2].

Education is undoubtedly a reliable process by which

individuals cultivate desired and profound changes in their behaviours and attitudes. Consequently, the Federal Republic of Nigeria (Federation of Nigeria) [3] states that Nigeria's educational goals include: the induction of national consciousness, values and unification; the induction of appropriate values and attitudes for the survival of individuals and Nigerian societies; the training of individual minds to become morally sound, patriotic and effective citizens; and the development of appropriate skills, mental, physical and social abilities and competitiveness. National educational objectives and objectives have sufficiently proposed a successful education that encapsulates desirable attitudes, values, skills, morality, abilities, competences and knowledge for the survival of individuals as citizens of Nigeria and as competitors in the world in the global field.

The above-mentioned objectives are rooted in civic education, which is taught as a basic subject for Nigerian primary, secondary and higher education students. Adedigba [4] suggests that as a core subject of the basic educational system (primary, secondary and secondary schools), each secondary student should complete the civic education material.

Scholars conceptualize civic education in many ways, but they have a common central idea that applies to all. Etetegwung [5] believes that civic education is the foundation of Nigeria's coexistence, values and identity. According to Muleya [6], civic education is a kind of education fundamentally designed and organized in content and purpose to create honest and helpful individuals capable of operating and influencing events in their environment and society in general. According to Barogun and Yusuf [7], the aim of the subject is to accomplish various objectives such as information exchange, the establishment and promotion of the most basic beliefs and values, and the promotion of further active and informed engagement in socially important issues. Tinibu [8] defines civil education as a socially-oriented public and continuous training and education system for developing civic skills, democratic culture and addressing the need for socialization in the interests of individuals,

society and the rule of law. It is the training that the student receives to inculcate in him an acceptable personality that will allow him to adhere and actively participate in the norms of any society where he or she is located.

The National Educational Research Development Council (NERDC) [9] outlines the objectives of civic education as follows: promote understanding of the relationship between men and women, government and society; highlight government structure, functions and responsibilities of government to the population, and vice versa; improve teaching and learning of emerging issues; and inculcate to students their responsibilities and obligations to society. To achieve these ambitious goals, current challenges in the world, such as drug abuse, drug trafficking, human trafficking and HIV/AIDS, have been added to the curriculum. The aim was to use effective teaching techniques to help students acquire the necessary information, attitudes, values, morality and basic skills, encouraging them to be disciplined as responsible members of society rather than succumb to social vices. Nonetheless, storytelling appears to be the most prevalent approach used for instructional delivery in the Nigerian secondary school system.

Storytelling (traditional teaching methods) has long been used to educate and entertain. It has a long history of passing information from generation to generation [10]. Bartelheim [11] believed that storytelling as an educational method would promote learning by bringing students into contact with other audiences and students' experiences.

Traditional storytelling sessions in the classroom often involve the teacher speaking to students as an audience, with no role other than listening and taking notes, resulting in the process of dominating or focusing on the teacher. This teaching style leads to passive learning in decision-making, low self-efficacy, and low self-esteem. In the 21st century, the emphasis on education delivery has been placed on creative and digitalized educational materials at all levels of education and topics [12]. Most of the themes in the curriculum for civic education can be taught more effectively using new strategies such as Digital Storytelling (DST) to promote critical thinking and self-efficacy of students. Innovative educational tactics have been found to engage students in critical thinking, increase interest in interaction with learning materials, and not remain passive in classrooms controlled by teachers. Due to the lack of a student-centered strategy, students may be passive or memorized to achieve high grades on the exams without the expected corresponding change in mental and moral standards, making them excellent ambassadors of schools and communities.

It is a fact that no instructional strategy is omni-potent, but the use of storytelling in Civic Education classroom in Nigeria, tends to allow for high achievement of students in external examinations without the equivalent high moral standards and creative thinking abilities in practice. The expected high morals from people who may have been taught the compulsory Civic Education in school seems to be lacking in most adolescents and youths [13]. News of arrest of adolescents and youths involved in drug abuse and trafficking is seen in the news media on daily basis. These reported cases of high involvement and arrest of students, adolescents, and youths in drug abuse and trafficking offences in and outside Nigeria is on the increase. Stephen

[14] and Omokri [15] frowned at the rate of cases involving youths and adolescent of Nigerian origin caught moving prohibited drugs from one place to another. A UNODC [16] report shows that young people between the ages of 11 and 35 constitute 63% of people arrested for various drug crimes over the years. The report also revealed that those aged between 15 and 35 represent 70% of those who are deeply involved in the ugly practice of drug abuse and trafficking.

According to Ucheckukwu [17], the Nigerian Police (NPF) in Calabar arrested two drug traffickers, as well as eleven other suspected criminals, in the federal housing area of Calabar. The journalist stated that nine other suspects were also arrested by the forces' Ogoja division for drug-related offences with large quantities of Indian hemp and tramadol. According to the same source, another group of five suspected cultists were arrested at a meeting at the Ikom LGA hotel, and packages of Indian hemp and tramadol were recovered. Ucheckukwu [18] reported on 18 December that the NPF seized 15 drug syndicates during a single day's raid on the famous Watt market in Calabar Capital. Evidence from the previous reports and the increasing number of crimes reported in the Calabar educational area indicate that the area has a problem with the study.

If young people are aware of the dangers of drug abuse and trafficking, they can achieve greater success in combating this trend. This indicates the need for intensive drug education aimed at exacerbating students' minds towards drug abuse and increasing their ability to maintain a drug-free lifestyle. In order to reverse this ugly trend, a paradigm shift in the teaching strategy in civic education classrooms, such as digital storytelling, could be explored.

DST has been considered for definition by various scholars. Smeda *et al.* [19] Digital storytelling is defined as a pedagogical strategy that effectively integrates digital media and effectively engages students in meaningful, deep learning. According to Johnson [20], DST is an instructional method used to combine audio, graphics, voices, text, and video using computer-based tools. DST is a process of mixing media that enriches and improves the words written or spoken [21]. Nader [22] considers DST to be a form of multimedia technology that mixes a series of digital materials into a narrative framework. This strategy combines words, images, videos, even music, supporting a recorded audio narration of personal stories, historical documentaries, or specific concepts and practices.

Most digital stories are relatively short, ranging from 2 to 10 minutes, and can be viewed on computers and other devices that can play video files in digital formats [23, 24]. This is because they are aimed at explaining previously ambiguous topics or illustrating abstract concepts for students. Therefore, most concepts in the civic education that students see as vague and abstract can be taught more effectively using visual, audio and video aspects through digital narration. Bouchrika [24] believes that DST can attract students in a variety of learning styles and can make teachers understand abstract or theoretical information. Dreon *et al.* [25] Encourage teachers to create digital stories to attract curiosity and engage students to learn effectively in all educational environments. Digital storytelling has shown that it supports both teachers and students in integrating digital technology into classrooms to support language

learning, facilitate discussion, increase social existence, explain abstract topics, etc. [24, 25].

From the foregoing, this study aims to investigate the effect of digital storytelling on the self-efficacy of secondary school students' in Civic Education. Significantly, the study will be relevant to teachers and researchers in providing an alternative approach to the traditional storytelling instructional strategy. The study will fill an existing gap in the literature in drug education and digital instruction.

With regard to the above-mentioned issues, many studies have shown the importance of DST in improving students' self-efficacy and other skills. Consequently, the main research questions in this paper are as follows.

what is the difference in the Mean self-efficacy scores of students' taught Civic Education with DST and those taught using conventional storytelling? Again, the null hypothesis in the study states thus: there is no significant difference in the mean self-efficacy scores of students taught Civic Education with DST and conventional storytelling strategy.

## II. LITERATURE REVIEW

Ozudogru and Cakir [26] examine the effects of DST activities on student engagement and writing self-efficacy levels of pre-service teachers. 64 pre-service teachers who are sophomores in the department of Literacy Education in the school of education during the 2015–2016 academic year participated in the study. The study was implemented using a pretest posttest quasi-experimental design with control group. The results of analysis showed that the engagement and writing self-efficacy of the pre-service teachers in the experimental group were higher than the pre-service teachers in the control group. Niemi and Niu [27] carried out a study on DST enhancing Chinese primary school students' self-efficacy in mathematics learning. 121 participants from four classes of 10 to 11 years old participated in the study. Quantitative data was collected with questionnaire while qualitative data was based on teachers' and students' interviews and observations. The findings revealed that both data sets showed that the students self-efficacy increased significantly during project. It also revealed that digital storytelling enhances the students' ability to see mathematics learning as useful. The students became more confident that they could learn mathematics and understand what they had learned.

In another study, Yazdani and Maghami *et al.* [28] investigated the effect of DST on the self-efficacy and critical thinking of second grade elementary school students in the shad system. The study adopted quasi-experimental pretest-posttest design with control. The population of the study consisted of 20 participants who were divided into 2 groups, that is 10 for experimental and 10 for the control groups respectively. Findings revealed that DST has been effective in increasing the self-efficacy and critical thinking of second grade students in a happy online environment. Kotluk and Kocakaya [29] carried out a study on the effect of creating DST on secondary school students' academic achievement, self-efficacy perceptions and attitude toward physics. The study adopted Quasi-experimental design with pretest-posttest comparison group. The sample consisted of 64 10<sup>th</sup> grade students (32 in experimental and 32 in comparison group) drawn through convenience sampling. Findings

indicated that DST participants performed significantly better than the comparison group in terms of physics achievement, while in comparison group students' self-efficacy perception and attitudes towards physics decreased, in experimental group there was not any difference.

Ozudogru and Cakir [30] investigated the effect of non-linear DST on technology use and writing self-efficacy once again. Convergent parallel design, one of the mixed methods was used in the study. The quantitative part of the study was designed with pretest-posttest control group design, while the qualitative part was designed as a case study. According to the findings, the non-linear DST approach had no statistically significant effect on the usage of information technologies or writing self-efficacy. Balaman [31] conducted research on the effects of DST on the self-efficacy and attitudes of English as Foreign Language (EFL) learners regarding educational technology. The quantitative data findings suggested that DST exposure positively improved the experimental group students' self-efficacy and attitudes toward instructional technology. However, there was no discernible difference in the scores of the control group pupils. The qualitative data also showed that as a result of participating in the experiment, students increased their self-efficacy and had a favorable attitude about the use of technology in their learning.

In a separate study Xu and Park *et al.* [32] researched on a new approach toward DST: an activity focused on writing self-efficacy in a virtual learning environment. Population of the study consisted of 64 undergraduate university students in South Korea. There were divided into two groups of 32 students for the study. Quasi-experimental design was used. Two-way independent sample t-test and multivariate analysis were used to compare the changes in writing self-efficacy between the two groups, and changes in flow score between the groups. The result of the experiment demonstrated that DST in a virtual learning environment is more effective than digital storytelling offline. In a related study, Tecedo [33] carried out a study on DST: changing learners' attitude and self-efficacy beliefs. It adopted a quantific survey design. Population of the study is 313 students out of which 220 voluntarily participated in the pretest and posttest. The findings indicated that curricular changes aimed at developing multiliteracies benefitted participants in two of the four domains under examination: attitude towards digital stories and self-efficacy in multiliteracies abilities.

DST has been found to be beneficial in education since it engages the student's critical thinking and creative abilities to learn and perform task which increases their desire to learn effectively in different topics and subject areas. Yoon [34] noted that English teachers believed that learning with digital storytelling will not only enrich students' knowledge and understanding of curricular content, but also improve their receptive communication skills. These will increase their self-confidence, curiosity, and passion to work cooperatively with other students and make an impactful learning experience.

DST is said to have the ability of increasing learners' self-efficacy. These potentials of digital storytelling could be leveraged to teach most topics in the Civic Education curriculum which appears to have special social significance [23]. Topics such as drug use and abuse, the

effect of drug and drugs abuse, prevention of drug abuse, and drug trafficking can be taught using DST.

Basically, there are many types of digital stories, but the most identified ones as classified by Robin [35] include: personal narrative stories that involves accounts of significant incidents in one's life, historical documentaries these contain dramatic events that help to have a grasp of the past, and stories that are designed to inform or instruct the learners on a particular concept or practice. The strategy can be combined or used separately in an instructional setting. The stories are mostly designed to instruct on a particular viewpoint that may appear too abstract to students or the target audience. An important story can be told with a combination of the above three approaches such as stories with global concern that uses historical material as backdrop of a personal narrative to instruct learners [35]. The story can be told with or without a narrator's visuals. It can also be an effective combination of backdrops and super imposed images with narrator's audio score. DST has proven to support language learning, facilitate discussion, increase social presence, simplifies instructions, clarify abstract concept thereby enhancing academic engagement and learning [23].

### III. RESEARCH METHODOLOGY

#### A. Ethical Consideration

First the researchers got approval from the departmental research ethics committee to carry out the study. Permission was also sort from the schools' head through a letter from the Head of Department of Curriculum and Teaching, University of Calabar. The schools' head also approved the informed consent forms that was given to the participating students. The researchers promised them anonymity of data after explaining the purpose of the study.

#### B. Design and Sampling Procedure

*First:* The study adopted a quasi-experimental research design. Specifically, the design is a pretest-posttest non-equivalent control factorial research. Intact classes were used for the study. This design was adopted because it was not possible to randomize the subjects of the study without disrupting the school setting, class arrangement, routine timetable, and other school programmes [36].

*Second:* The study's population includes 4,484 senior secondary students from 94 secondary schools in the Calabar School for the 2021/2022 session. The sample of the study consists of 183 students in the four intact classes used, 43, 45, 47, and 48. The purpose-based sampling technique and simple random sampling technique were used to design samples for research. Purpose sampling techniques have been used to select 15 of the 94 secondary schools in the Calabar School Area. The criteria for inclusion were that schools must have facilities that can effectively support the delivery of audio-visual instruction content with access to students and co-education. A simple random sampling technique was used to select four schools from 15 schools that met the above criteria and to include them in the study, without replacing them. This should offer each school the same chance to study. Simple random sampling techniques were also used to classify each of the four schools into two groups (experimental and control groups, respectively). The

experimental group was taught with a digital storytelling teaching strategy, while the control group was taught with a traditional storytelling strategy.

#### C. Data Collection

Instrument for data collection was Civic Education Self-Efficacy Questionnaire. The instrument consisted of sections, A and B. Section A elicited demographic data of the students such as: gender, age, and location of school while section B comprises of 25 items on a four-point rating scale. For each item, the students answered on a reversed Likert scale of 4 to 1 (4 = strongly Agree, 3 = Agree, 2 = Disagree, and 1=Strongly Disagree). The higher the final score, the higher the self-efficacy belief. The instrument and the researchers made digital storytelling instructional strategy were validated by three experts from the Department of Educational Psychology, Science Education (Measurement and Evaluation unit), and Curriculum and Teaching (Educational Technology unit) University of Calabar. The reliability of the instrument was estimated using Cronbach's Alpha to determine the internal consistency which yielded a coefficient of 0.80.

Data for the study were collected through pre-test and post-test from both experimental and control groups. The study was conducted in six weeks, the treatment was divided into eight lessons, with two lessons taught per week, for each class. In week one, the researchers visited the sampled schools to obtain permission from the schools' head. After obtaining the permission, the researchers previewed the facilities in the schools that were used for the study to ascertain the functionality level, the researchers then engaged and trained the regular Civic Education teachers in the sampled schools as research assistants on how to teach with digital storytelling instructional media. This was to enable them acquire the essential skills for implementing the treatment. Some of the skills emphasized was the ability to play, rewind, repeat, fast-forward and when to pause/stop the package for students' interaction. The training was done before the commencement of the experiment in each of the schools for one day, according to the type of treatment that was to be given in such school. Those in the control groups were given lesson plan and instructional materials while those in the experimental groups were given digital storytelling instructional packages. After the training, the pretest was administered to the students by the research assistants. The treatment was done for four weeks in each of the schools, and one week later, posttest was administered to all the groups by the research assistant in their various schools.

#### D. Data Analysis

Data generated were analyzed with SPSS 23 (IBM) using mean and standard deviation to answer the research question, while the hypothesis was tested using the Analysis of Covariance (ANCOVA) at a 0.05 level of significance. The ANCOVA was used because it is the most effective statistical technique to be used in a pretest posttest situation when the pretest scores served as covariates. The decision rule for testing the hypothesis was thus: Reject the null hypothesis (H<sub>0</sub>) if the associated or exact probability value associated with the test statistics is less than 0.05 ( $p < 0.05$ ), otherwise do not reject.

IV. RESULTS

A. Research Question

Result in Table 1 showed the mean self-efficacy scores of senior secondary school students taught Civic Education with digital storytelling and conventional storytelling strategy. The result indicates that students who were taught Civic Education using the digital storytelling strategy (Experimental group) had a mean self-efficacy score of ( $\bar{X}$  = 50.20, SD = 8.87) at pretest and a mean self-efficacy score of ( $\bar{X}$  = 72.98, SD = 6.78) at posttest, while those taught using the conventional storytelling strategy (Control group) had a mean self-efficacy score of ( $\bar{X}$  = 49.77, SD = 8.81) at pretest and a mean self-efficacy score of ( $\bar{X}$  = 52.32, SD = 6.39) at posttest. The standard deviation of 6.78 and 6.39 for the digital storytelling and conventional storytelling strategies at

posttest respectively, shows that the self-efficacy scores of students in the digital storytelling group were slightly widespread than the scores of students in the conventional storytelling group. The adjusted mean score for students taught using digital storytelling strategy was 72.96 while their counterparts that were taught using the conventional storytelling strategy had 52.23. This indicates that senior secondary school students taught Civic Education using digital storytelling strategy had higher mean self-efficacy scores than those taught using the conventional storytelling strategy. That is to say that digital storytelling strategy has positive effect in terms of enhancing senior secondary school students' self-efficacy in civic education than the conventional storytelling strategy. This was however, significantly determined using hypothesis.

Table 1. Pretest and Post-test mean self-efficacy scores of senior secondary school students taught Civic Education with digital storytelling and conventional storytelling strategy

Instructional Strategy	n	Pre-test		Post-test		Adjusted Mean Score
		$\bar{X}1$	SD1	$\bar{X}2$	SD2	
Digital Storytelling	89	50.20	8.87	72.98	6.78	72.96
Conventional Storytelling	94	49.77	8.81	52.32	6.39	52.23

Note: n = Number of Respondents,  $\bar{X}$  = Mean, SD = Standard Deviation

B. Hypothesis

There is no significant difference in the mean self-efficacy scores of senior secondary school students taught Civic Education with digital storytelling and conventional storytelling strategy. The result in Table 2 showed that there is a significant difference between the mean self-efficacy scores of senior secondary school students taught Civic Education with digital storytelling and conventional storytelling strategy,  $F(1, 178) = 450.056, *p = 0.000, \eta^2p = 0.717$ . This is given the fact that the associated probability (Sig.) value of 0.000 is less than 0.05 level of significance at which the hypothesis was tested. Thus, the null hypothesis (H0) which stated that there is no significant difference in the

mean self-efficacy scores of senior secondary school students taught Civic Education with digital storytelling and conventional storytelling strategy is rejected. Moreover, the effect size difference of ( $\eta^2p = 0.717$ ), shows that 71.7% variance exists between the mean self-efficacy scores of students taught using digital and conventional storytelling strategies. This denotes that there is a considerable difference between the effects of digital storytelling and conventional storytelling strategies on senior secondary school students' mean self-efficacy scores in civic education. Hence, inference drawn is that there is a significant difference in the mean self-efficacy scores of senior secondary school students taught Civic Education with digital storytelling and conventional storytelling strategy.

Table 2. Analysis of Covariance (ANCOVA) of the difference in the mean self-efficacy scores of senior secondary school students taught Civic Education with digital storytelling and conventional storytelling strategy

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared ( $\eta^2p$ )	Dec.
Corrected Model	19629.871 <sup>a</sup>	4	4907.468	113.113	0.000	0.718	
Intercept	20954.975	1	20954.975	482.996	0.000	0.731	
Pre-Civic Edu. Self-efficacy	2.946	1	2.946	0.068	0.795	0.000	
Group	19525.859	1	19525.859	450.056	0.000	0.717	S
Gender	82.181	1	82.181	1.894	0.170	0.011	NS
Group * Gender	29.451	1	29.451	0.679	0.411	0.004	NS
Error	7722.599	178	43.385				
Total	739137.000	183					
Corrected Total	27352.470	182					

Note: df= Degree of Freedom, F = F-ratio, Sig.= Significant/probability value, Dec. = Decision, S = Significant, NS = Not Significant.

V. DISCUSSION

The finding of the study has shown that students taught Civic Education using digital storytelling strategy had higher mean self-efficacy scores than those taught using the conventional storytelling strategy. Further analysis revealed that there is a significant difference in the mean self-efficacy scores of senior secondary school students taught Civic Education with digital storytelling and conventional storytelling strategy. This implies that the use of digital storytelling strategy has more potential of promoting students' self-efficacy in Civic Education than the conventional

storytelling strategy.

The above finding corroborates with the findings of some previous studies. For instance, the finding lends support to the findings by Kotluk and Kocakaya [29] whose study on the effect of digital storytelling on secondary school students' academic achievement, self-efficacy, perceptions, and attitude toward physics, revealed that students who were exposed to digital storytelling improved in their self-efficacy and performed significantly better than their counterparts who were not. Similarly, the finding also affirms the finding of the outcome of the study by Ozudogru and Cakir [26], who examined the effects of digital storytelling activities on

student engagement and writing self-efficacy levels of pre-service teachers, and the result showed that the engagement and writing self-efficacy of the pre-service teachers who participated in digital storytelling activities was higher than the pre-service teachers who did not participate. In the same vein, Balaman [31] who carried out a study on the impacts of digital storytelling on EFL learners' self-efficacy and attitudes toward educational technologies, concluded that exposure to digital storytelling positively impacts on students' self-efficacy and attitudes towards educational technology in the positive direction.

Likewise, the finding adds credence to Niemi *et al.* [27] who after a study on digital storytelling enhancing Chinese primary school students' self-efficacy in Mathematics learning revealed that students' self-efficacy increases significantly during digital storytelling. Furthermore, the finding agrees with that of Yazdani *et al.* [28], whose research on the effect of digital storytelling on the self-efficacy and critical thinking of students, showed that digital storytelling has been effective in increasing the self-efficacy and critical thinking of second grade students in a happy online environment. In the same vein, Tecedor [33] concluded that digital storytelling has positive effect on students' self-efficacy beliefs. Accordingly, it is possible that the digital storytelling when adopted in teaching Civic Education could increase students' self-efficacy in the subject to a considerable extent.

#### A. *Limitation of the Study*

The current study tends to be limited in the following ways:

1. Results gotten from four intact classes in four schools out of the 94 secondary school in the zone may not be sufficient to generalize it to all the schools in the Education Zone.
2. The sample size of 183 out of 4,484 students may not sufficiently represent the entire population of the study.
3. The study focused on two major topics, and not all the topics in Civic Education were treated thereby the findings may not be generalized to conveniently represent Civic Education subject.

However, the above limitations have no negative implication and did not nullify the findings of the study.

#### B. *Educational Implications of the Findings*

The findings of the study showed that the use of DST strategy has positive effect in terms of increasing senior secondary school students' self-efficacy in Civic Education than the conventional storytelling strategy. The implication of this findings is that students' self-efficacy in Civic Education will improve tremendously when taught with the digital storytelling strategy.

It also means that adoption of DST strategy in the teaching of Civic Education is better than depending wholly on the conventional storytelling strategy. Hence, digital storytelling instructional strategy is an effective strategy when seeking to enhance students' self-efficacy in Civic Education.

## VI. CONCLUSION

Based on the findings of the study, it was concluded that digital storytelling instructional strategy has positive effect in terms of increasing senior secondary school students' self-

efficacy in Civic Education than the conventional storytelling strategy. This therefore means that digital storytelling strategy if adopted by Civic Education teachers will have better positive effects in terms of enhancing students' self-efficacy than the conventional storytelling strategy. Practically, teachers and the school management should adopt DST for effective design of instructional contents that will enhance students' self-efficacy and change their approach to learning from memorizing just to pass examination to practical application of what is learned in real life. On the other hand, Government agencies, as well as NGO's in the forefront of drug education can adapt the findings of this work as a template for awareness creation. It has also enhanced the literature on the area of DST and self-efficacy. Other researchers can carry out further studies considering DST and different variables such as Engagement, academic Performance, and Task Mastery. Further research could also focus on DST, Self-efficacy, Gender, and/ or location. This study can be repeated in a scenario that can allow for randomization of respondents

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

## AUTHOR CONTRIBUTIONS

Celestine Nkanu, Uche Asogwa, and David Ekpoto developed the research concept, designing the study, and wrote the manuscript. Anthony Bisong, Abigail Effiong, and John Imoke developed the instrument for data collection and test the reliability. Emmanuel Bessong executed the validation of the research instrument. Paul Adie, Francis Akpo Etta Idaka trained the research assistants and supervised the data collection process. Oyobo-Gladys Abam, Flora Monity, Charles Kingsley, and Ekpo-Eloma Ekpo analyzed data and wrote the discussion. All authors had approved the final version

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