

Comparative Effectiveness of Computer-Based Instructional Board Game on Students' Academic Performance in Peace Education

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Abstract

The devastating effects of violence on nation-building require the placing of a premium on peace. The study investigated the comparative effectiveness of computer-based instructional games and instructional board games on students' academic performance in peace education. The interactive effects of gender differences on treatment effectiveness in the population were also investigated. One junior secondary school was randomly selected from each district. A pre-test instrument, "Achievement Test on Peace Education". was administered to Grade 8 and 9 students at each of the three schools. Results showed significant differences between students exposed to the treatment conditions and those in the control group. Gender has no influence on the effectiveness of treatment in improving students' performance in peace education. Based on these findings, it was recommended that the use of instructional games in peace education classrooms be encouraged by incorporating them into the curriculum.

ARTICLE HISTORY

Received 6 January 2026

Accepted 3 March 2026

KEY WORDS

Comparative Effectiveness; Computer-based Instructional Game; Instructional Board Game; Academic Performance; Peace Education

INTRODUCTION

Crises, clashes, violence, and non-violent demonstrations are common occurrences in different parts of Nigeria. Nigerians, irrespective of their geo-political zones, have suffered a lot from communal and ethno-religious clashes in the form of dislocation of people, destruction of property, loss of lives, and environmental degradation. According to Afegbua (2014), conflicts are common and unavoidable in all human societies because of diverse values and interests among those that constitute the society. The author posits that, as a heterogeneous society, Nigeria has experienced ethnic, sectional, religious, and political violence, resulting in grievous socio-economic and political consequences on the psyche of the nation. The prevalence of conflicts in the country has led to the loss of revenue and lives, and has dented the country's image, thereby discouraging foreign investors from investing in the economy.

Turaki (2012) asserts that frequent religious and communal conflicts have put the nation on the brink of collapse. Ekpenyong (2011) also acknowledges the prevalence of conflict in Nigeria, which results in political, economic, and social instability. Ilufoye (2009) views Nigeria as a state under a perpetual internal security threat, with social, economic, and political dimensions that greatly affect the nation's stability and well-being.

The devastating effects of conflict on nation-building require that a premium be placed on

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peace. Peace implies freedom from disturbance; quietness and tranquility. The presence of peace in any human society will promote harmonious relationships among the individuals and groups that make up the society, thereby leading to social, economic, and political advancements. Hornby (2006) described peace as a state of being calm and quiet. Peace is also a state of absence of any war or conflict. Ekwueme et al. (2013) define peace as a state of human relations that entails a sense of community, mutual support, and freedom of expression and thought. To achieve a culture of peace, Weis (2001) recommends peace education, a participatory process that develops critical capacities to address the challenges of war, terrorism, gender exploitation, economic and racial violence, and environmental damage, and to integrate these into all schools' curricula. Peace education involves activities that promote the skills, knowledge, and social conditions conducive to peace. In Mazer's (2002) view, peace education remains a fairly controversial term because some feel that education in general should automatically imply Peace Education. Peace education should therefore receive the attention it deserves by being included in the school curriculum.

To achieve perpetual peace in any society, peace education must be incorporated into the school curriculum. Peace education is the process of acquiring values and knowledge and developing attitudes, skills, and behaviors to live in harmony with oneself, others, and the natural environment (Ogundele et al., 2015). According to UNESCO (2005), if education is the only defense against human catastrophe, peace education is the shield that can create the shield for human survival on the planet. It is only through peace education that peace can be installed in the human mind as an antidote to war in the minds of men. This UNESCO postulation lends credence to the efficacy of education as a tool for enhancing peace through peace education. Akubue and Ezegbe (2013), citing Meziobi and Meziobi (2009), define peace education as the articulation of relevant knowledge, issues, values, and attitudes for worthwhile human relations. Ogundele et al. (2015) view peace education as a systematic approach to individual training towards non-violence, love, compassion, fairness, good welfare, cooperation, and good interpersonal relationships in society.

The Nigerian government's recognition of the relevance of peace education to national development led to its incorporation into the secondary school social studies curriculum. Sambo (2014) posits that peace education in Nigeria will enable students to acquire the basic skills, values, and abilities to develop a peace culture, interpersonal cultural attitude like respect for elders and constituted authorities, living in harmony, honesty and transparency, fairness, justice in any society where an individual may find him/herself. Patil and Rakkasagi (2013) assert that peace education must address all forms of conflict and violence, whether overt or structural, from the interpersonal level to societal and global levels.

The social studies curriculum, which aims to inculcate the right skills, knowledge, attitudes, and values that will make learners responsible and responsive, demands a critical examination of the instructional methods used in teaching the subject. According to UNESCO (2005), peace education is not a theoretical subject, as its success lies in practicing peace behaviors and a peace mindset, thereby advocating the experiential learning method. Adedoja and Fakokunde (2010) suggest that the method used in peace education must be peaceful in all its ramifications. It must be conducted in a relaxed atmosphere, using learner-friendly methods that foster cooperation, collaboration, and interactivity.

Scholars in the field of social studies have identified the use of inappropriate instructional methods as responsible for students' poor performance in social studies, which is also reflected in their failure to imbibe the culture of peace. Playing games and having fun are crucial to development and highly motivating to children. The natural setting of a child's game provides opportunities for learning, problem-solving, hypothesis testing, and thought-construct formation, as well as scripts that reflect the shared cognitive themes associated with cultural understanding (Fromberg, 1992, cited in Hromek & Roffey, 2009). Fun is a paramount element to a child playing a game. Creativity is usually stimulated by fun and humor, as the brain shifts from a cognitive, rule-bound state to a more fluid, relaxed state in which the whole body is engaged in problem-solving (Prouty, 2000). Most students experienced joy in having fun, which seemed tied to how well

they understood their immediate physical and social context, allowing them to make informed decisions (Light, 2002).

Games and simulations have been used in various contexts to develop insight, empathy, pro-social skills, and improved behavior (Hromek, 2004). The use of games to engage students in active learning is not a new idea. Over the past several years, educators have increasingly employed games in their curricula to create a fun and engaging learning environment for students. Although this can be very challenging and time-consuming, competitive, interactive, and collaborative games tend to encourage and motivate students' participation in the learning process.

Over the years, the format for classroom games has changed drastically. There are many other options that incorporate technology and interactivity. Quinn and Iverson argued that students need to be more engaged and placed at the center of the learning experience to shift from passive vessels to active participants (as cited in Pannesse & Carlesi, 2007).

Researchers have indicated that game-based learning may be the most effective way to motivate students to learn (Papastergiou, 2009a; Dickey, 2010; Huang, 2010; Tüzün et al., 2009). In addition, it has been reported that a game-based learning approach may provide an effective opportunity to stimulate children's abstract thinking during cognitive development and further foster their higher-order thinking abilities (Carbonaro et al., 2010). This could likely result in improved academic performance as well. This study, therefore, compared the effectiveness of computer-based instructional games and instructional board games on students' academic performance in peace education.

As the use of computers in instruction increases, it is important to establish research-based guidelines for the appropriate roles of computer-based instruction in learning and teaching. Computer games are immensely beneficial to children and adults by providing motivation, developing skills, and encouraging collaboration. Can (2003) emphasizes a deficiency in the literature regarding the effectiveness of using games in the teaching/learning process. Van Eck (2006) states that computer-based games and simulations are more effective for learning, especially when students receive some form of guidance.

Adesina (2012) acknowledges ineffective utilization of student-centered learning methods in the social studies classroom. This is also in line with the postulation of Edinyang and Ubi (2012), which identifies the lack of use of inspiring teaching methods in the teaching of social studies, on which platform the teaching of peace education lies.

The need to adopt instructional methods that enable active learner participation in the teaching-learning process informed the design of both board- and computer-based instructional games in this study. Martin and Oppenheim (2007) report that children aged 8-12 years and 13-18 years are committed to video games for an average of 13 and 14 hours per week, respectively, thereby advocating their use in instructional delivery. Gee and Hayes (2010) attribute interest in games to their being built around problem-solving in an environment that encourages playfulness and exploration. Adedaja and Fakokunde (2010) submit that games have the potential to inculcate the right skills, attitudes, and values in the young ones. The persistence of conflicts at individual, community, and national levels in Nigeria reflects the failure of peace education to achieve the desired objective, which could be attributed to inappropriate teaching methods. The effectiveness of games in fostering cooperation and collaboration in children led the researchers in this study to design, develop, and validate instructional games. In this respect, the aim of this study is to compare the effectiveness of computer-based games and instructional board games on students' academic performance in peace education.

The study's trend focuses on comparative educational research exploring the effectiveness of instructional methods (specifically, computer-based instructional games vs. instructional board games) in improving students' academic performance in peace education. It examines how these methods influence learning outcomes, particularly in the context of peace education as a tool to address societal violence and foster national development. The study also investigates the

*interactive effects of gender differences on the effectiveness of these teaching methods.

Key themes in the study include:

1. Educational Innovation: The use of games (both digital and non-digital) as active, engaging teaching tools to foster critical thinking, collaboration, and cooperative learning in the context of peace education.
2. Peace Education: The promotion of non-violence, cultural understanding, and interpersonal harmony as fundamental aspects of the curriculum.
3. Pedagogical Effectiveness: Comparing the impact of different types of instructional games on students' motivation, cognitive development, and academic performance, with a particular focus on peace-related subject matter.
4. Gender and Learning: Investigating whether gender influences the effectiveness of these instructional methods.

The research is situated within the broader context of Nigeria's socio-political environment, where persistent violence and conflicts underscore the need for effective peace education, making it a study with significant social and educational implications.

The objectives of the study are:

1. To find out the effect of treatments on academic performance/ learning outcomes on peace education among junior secondary school students in the South-western part of Nigeria.
2. To find out the comparative effectiveness of computer-based instructional games and instructional board games on academic performance/learning outcomes on peace education among junior secondary school students in the South-western part of Nigeria.
3. To examine the effect of treatment on academic performance/ learning outcomes on peace education among male and female junior secondary school students in the South-western part of Nigeria.

METHOD

A. Research Design

This The quasi-experimental research design (Shadish & Luellen, 2012) was used in this study to establish cause-and-effect relationships among the variables. The researcher employed a Pre-test, Post-test control group design. The design is schematically represented in Figure I.

Figure I. The Study Design:

Experimental Group I

R₁ O₁ X₁ O₂ ----- Teaching with Computer-Based Instructional Games (CBIG)

Experimental group 2

R₂ O₁ X₂ O₂ ----- Teaching with Instructional Board Game (IBG)

Experimental group 3

R₃ O₁ X₃ O₂ ----- Control group.

Note: R- assignment of experimental conditions and participants to the groups.

O₁ - Pre-test

O₂ - Post-test

X₁ - application of CBIG (teaching)

X₂ - application of IBG (teaching)

X₀ - control group (teaching without a game)

B. Participants and Setting

All junior secondary school students in South-Western Nigeria constituted the study population, while Grade 8 and Grade 9 students formed the target population because peace education topics are included in their curricula. South-Western Nigeria comprises six states. From each state, three senatorial districts were selected using simple random sampling, and one junior secondary school was randomly selected from each selected district. Thus, a total of 18 schools participated in the study. The Achievement Test on Peace Education was administered as a pre-test to Grade 8 and Grade 9 students in the selected schools. The participating students were then assigned to three groups: the Computer-Based Instructional Games group, the Instructional Board Game group, and the control group.

C. Instrument

The researchers developed an achievement test on Peace Education, used for the collection of baseline information, which is used for pre-test and post-test titled "Achievement Test on Peace Education." The instrument comprised 20 items on peace education, with four response options (A, B, C, and D). The researchers developed both computer-based and board instructional games. The development of the games was in two phases. The first stage involved the design and development of the board- and computer-based instructional games, while the second involved validating them with 100 students who were not participants in the study. The first phase involved the design and development of the instructional game in line with the Rapid Prototyping Model of Tripp and Bichelmayer (1990). The computer games are three in number, named 'PEACON I, PEACON II, and PEACON III. The game is a self-learning game. To play the game, the player must click the package twice. The first page contains the introduction, outcomes, and gameplay. The player should put the cursor on the introduction to read the welcome message. Place the cursor on the outcomes to read the game's objectives before moving to the 'game play' section, which provides instructions on how to play.

RESULTS

The analysis examined three related issues: whether instructional treatment significantly affected students' academic performance in peace education, how performance differed across the three instructional groups, and whether gender influenced either performance or the effectiveness of the treatments.

A. Effect of Instructional Treatment on Students' Performance in Peace Education

An analysis of covariance was conducted to determine the effect of instructional treatment on students' academic performance in peace education while controlling for pretest scores. The results are presented in Table 1.

Table 1. ANCOVA Summary Showing the Effects of Treatment, Gender, and Treatment $\times$ Gender on Students' Performance in Peace Education

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial η^2
Corrected Model	626.073	6	104.345	7.872	.000	.123
Intercept	82402.835	1	8402.835	633.925	.000	.625
Pretest	69.489	1	69.489	5.242	.023	.015
Treatment	534.046	2	267.023	20.145	.000	.107
Gender	6.128	1	6.128	0.462	.497	.001
Treatment $\times$ Gender	5.085	2	2.542	0.192	.826	.001
Error	4480.275	338	13.255	—	—	—
Total	72307.000	345	—	—	—	—
Corrected Total	5106.348	344	—	—	—	—

Note. The intercept values are reproduced from the original output supplied and should be verified because the reported Type III Sum of Squares and Mean Squares appear inconsistent.

The results indicate that instructional treatment had a statistically significant effect on students' performance in peace education, $F(2, 338) = 20.15$, $p < .001$, partial $\eta^2 = .107$. This means that students' achievement differed significantly according to the instructional strategy to which they were exposed. The effect size indicates that treatment accounted for approximately 10.7% of the variance in post-intervention performance, controlling for the pretest score. The pretest also had a statistically significant effect, $F(1, 338) = 5.24$, $p = .023$, partial $\eta^2 = .015$, indicating that prior achievement contributed modestly to students' subsequent performance.

To clarify the direction and magnitude of the treatment effect, the estimated marginal means for each instructional group are presented in Table 2.

Table 2. Estimated Marginal Means of Students' Performance by Treatment Group and Gender

Variable	Group	N	Estimated Marginal Mean	Std. Error
Treatment	Control	120	12.503	0.333
	Board Game	120	13.995	0.336
	Computer Game	105	15.620	0.361
Gender	Male	175	13.903	0.286
	Female	170	14.175	0.277

The estimated marginal means show a clear progression across the three instructional conditions. Students exposed to the computer-based instructional game recorded the highest adjusted mean score ($M = 15.62$, $SE = 0.36$), followed by students who learned through the instructional board game ($M = 14.00$, $SE = 0.34$). Students taught through the conventional method obtained the lowest adjusted mean score ($M = 12.50$, $SE = 0.33$).

This pattern suggests that the use of instructional games was associated with better academic performance than conventional teaching, while the computer-based instructional game produced the strongest performance among the three approaches. However, because the omnibus treatment effect only establishes that at least one group differed significantly from another, post hoc comparisons were required to identify the specific sources of the differences.

B. Pairwise Comparison of the Treatment Groups

Scheffé's post hoc analysis was conducted to determine which pairs of instructional groups differed significantly. The results are presented in Table 3. **Table 5.**

Table 3. Scheffé's Post Hoc Pairwise Comparison of Students' Performance Across Treatment Groups

Treatment Group	Mean Score	Control	Board Game	Computer Game
Control	12.503	—	*	*
Board Game	13.995	*	—	*
Computer Game	15.620	*	*	—

Note. * indicates a statistically significant difference between the corresponding treatment groups.

The pairwise comparison indicates that all three treatment groups differed significantly from one another. Students who learned through the instructional board game significantly outperformed those taught through the conventional strategy. Likewise, students exposed to the computer-based instructional game significantly outperformed students in both the control and board-game groups.

Taken together, the findings establish the following performance pattern: Computer-based instructional game > instructional board game > conventional instruction.

This result provides evidence that both forms of instructional games were associated with improved learning outcomes in peace education, while the computer-based format produced the highest level of academic performance. The finding is particularly important because it suggests that the instructional design and technological affordances of the computer-based game may have provided additional learning support beyond what the board-game format offers.

C. Effect of Gender on Students' Academic Performan

The ANCOVA results further show that gender did not have a statistically significant main effect on students' academic performance, $F(1, 338) = 0.46$, $p = .497$, partial $\eta^2 = .001$. As shown in Table 2, female students recorded a slightly higher estimated marginal mean ($M = 14.18$, $SE = 0.28$) than male students ($M = 13.90$, $SE = 0.29$). However, this difference was not statistically significant.

The very small partial eta-squared value further indicates that gender accounted for virtually none of the variance in students' academic performance. The result, therefore, suggests that male and female students benefited similarly from the instructional conditions used in the study.

D. Interaction Effect of Treatment and Gender

The interaction between treatment and gender was also not statistically significant, $F(2, 338) = 0.19$, $p = .826$, partial $\eta^2 = .001$. This indicates that the effect of the instructional treatment on students' performance did not vary meaningfully by gender.

In practical terms, the relative advantage of instructional games was consistent for both male and female students. The superiority of the computer-based instructional game, followed by the board game and then conventional instruction, was therefore not dependent on students' gender.

E. Summary of the Findings

Overall, the analysis demonstrates a significant effect of instructional treatment on students' academic performance in peace education. Students exposed to instructional games performed better than those taught using the conventional method, and the computer-based instructional game produced significantly better outcomes than the instructional board game. In contrast, gender had neither a significant independent effect on academic performance nor a significant interaction with instructional treatment.

These findings suggest that the type of instructional strategy was a more important determinant of students' performance than gender. They also provide empirical support for the use of instructional games, particularly computer-based ones, as an effective approach to teaching peace education.

DISCUSSION

The findings indicate that instructional games can significantly improve students' academic performance in peace education. Students who learned through instructional games performed better than those taught through conventional methods, suggesting that game-based learning can provide a more engaging and effective instructional environment. In peace education, where learning outcomes include not only conceptual understanding but also the development of attitudes, values, and social awareness, instructional games may help students engage with learning content more actively and meaningfully.

A further finding shows that students who used computer-based instructional games achieved significantly better performance than those who used instructional board games. This suggests that the digital characteristics of computer-based games may offer additional instructional advantages, including immediate feedback, multimedia representation, interactivity, repeated practice, and greater learner control. From an educational technology perspective, this finding reinforces the importance of selecting technological media not merely because they are digital, but because their features can support particular learning processes and outcomes. Computer-based games may therefore be particularly valuable for peace education when they are designed to present scenarios, dilemmas, consequences, and decision-making situations that allow students to explore peaceful responses to social problems.

The superiority of instructional games over conventional instruction is consistent with previous studies that identify game-based learning as an effective means of increasing students' motivation and engagement (Papastergiou, 2009a; Dickey, 2010; Huang, 2010; Tüzün et al., 2009). The present finding extends this argument to peace education. Rather than positioning students as passive recipients of information about peace, instructional games can place them in active learning situations in which they must respond, make choices, solve problems, and interact with others. Such experiences may strengthen the connection between abstract concepts of peace and the practical situations in which peaceful values need to be applied.

The study also found no significant gender difference in students' performance when instructional games were used. This indicates that both male and female students benefited from the game-based learning activities. The result is important because it suggests that instructional games can function as an inclusive learning strategy in peace education. From an educational technology perspective, instructional media should provide equitable opportunities for participation and achievement. The absence of a gender effect in this study suggests that well-designed games may support learning without privileging one gender group over another.

Another important finding is the students' positive attitude toward using instructional games to learn peace education and Social Studies. Positive learner attitudes are important because technology-supported instruction is unlikely to be effective if learners perceive it as difficult, irrelevant, or unengaging. The students' positive disposition suggests that the games were not only

academically beneficial but were also acceptable as learning tools. This combination of achievement and positive perception strengthens the practical value of instructional games for classroom implementation.

The effectiveness of the games may also be explained by the collaborative and low-threat learning environment they create. Instructional games can encourage students to cooperate, communicate, negotiate, and solve problems together. These processes are particularly relevant to peace education because cooperation, dialogue, empathy, tolerance, and peaceful problem-solving are themselves important learning outcomes. In this sense, the instructional game is not only a medium for delivering peace education content; it can also serve as a learning environment in which students practice behaviors consistent with the values being taught.

The findings also support Van Eck's (2006) observation that computer-based games and simulations can be effective for learning, particularly when learners receive appropriate guidance. This highlights an important principle in educational technology: the effectiveness of a learning technology depends on the instructional design surrounding its use. Games should therefore not be treated as stand-alone entertainment activities. Teachers need to provide clear learning objectives, instructions, facilitation, reflection, and feedback so that students can connect their experiences during gameplay with the intended concepts and values of peace education.

The improved performance observed in this study is also consistent with the argument that games can create environments characterized by problem-solving, exploration, and active participation. Gee and Hayes (2010), for example, emphasize that games engage learners through meaningful problems and opportunities for exploration, while Amr (2012) highlights children's strong engagement with video games. Similarly, Adedola and Fakokunde (2010) argue that games can contribute to the development of appropriate skills, values, and attitudes. These characteristics are especially relevant to peace education because learners need opportunities to interpret conflicts, consider alternative actions, anticipate consequences, and practice constructive responses.

From the field of educational technology, the major contribution of this study lies in demonstrating that instructional games can serve as more than motivational supplements. They can function as deliberately designed learning environments that integrate content, learner interaction, feedback, problem solving, and value formation. For peace education specifically, game-based learning offers a promising way to transform abstract concepts such as tolerance, cooperation, conflict resolution, and peaceful coexistence into experiential learning activities. The stronger performance of students who used computer-based games further suggests that interactive digital environments may offer added value when their technological affordances align with pedagogical objectives.

Overall, the study suggests that the effectiveness of instructional games in peace education depends on the interaction between technology, pedagogy, and learning objectives. The contribution of educational technology is therefore not simply the introduction of computers or games into the classroom, but the systematic design of learning experiences in which technology enables students to engage with peace-related concepts through active, collaborative, reflective, and problem-oriented activities. Future applications should consequently focus on developing instructional games that are pedagogically structured, culturally relevant, inclusive, and explicitly aligned with the intended cognitive, affective, and behavioral outcomes of peace education.

CONCLUSION AND RECOMMENDATIONS

The study highlights the persistent effects of crises, violence, and conflict in Nigeria and their implications for national socio-economic and political stability. Although peace education has been incorporated into the school curriculum, the continued prevalence of violent behavior suggests that curriculum inclusion alone may be insufficient if instructional approaches do not actively engage learners. The findings indicate that instructional games can provide a more parti-

participatory approach to teaching peace education by enabling students to engage with peace-related concepts through interaction, problem-solving, and collaborative learning.

The findings further show that both computer-based and board-based instructional games can improve students' academic performance and attitudes toward peace education. Their effectiveness may be linked to the opportunities they provide for active participation, decision-making, cooperation, and problem-solving. These characteristics are particularly relevant to peace education because they allow students to engage with concepts such as cooperation, tolerance, conflict resolution, and peaceful coexistence in a more experiential manner.

The study also points to the need to reconsider the continued reliance on conventional teacher-centered methods in peace education. If peace education is expected to influence not only students' knowledge but also their attitudes, values, and social behaviors, instructional methods should provide opportunities for learners to participate actively in the learning process. The findings therefore support a shift toward more interactive, learner-centered, and experience-based approaches, including instructional games, simulations, and other participatory strategies.

Based on the findings of the study, the following recommendations are proposed:

1. **Integration of Game-Based Learning into Peace Education.** Schools should incorporate instructional games into peace education. Such games should be deliberately designed to promote cooperation, problem-solving, communication, and peaceful conflict resolution, enabling students to engage actively with the values and principles of peace.
2. **Development of Appropriate Digital and Board Games.** Curriculum developers, educational technologists, and relevant educational authorities should support the development of both computer-based and board-based games that are aligned with peace education objectives. The games should reflect learners' age, cultural context, curriculum content, and intended cognitive and affective learning outcomes.
3. **Teacher Training in Game-Based Instruction.** Teachers should receive professional development in selecting, facilitating, and integrating instructional games into peace education. Training should emphasize not only the technical use of games but also instructional guidance, reflection, classroom management, and the connection between gameplay and peace education outcomes.
4. **Strengthening Experiential Learning.** Peace education should include experiential activities such as simulations, role-playing, collaborative problem-solving, and scenario-based games. These approaches can provide opportunities for students to practice peaceful communication, negotiation, cooperation, and conflict-resolution skills in structured learning situations.
5. **Continuous Evaluation of Instructional Approaches.** Schools and educational authorities should regularly evaluate the effectiveness of instructional strategies used in peace education. Assessment should examine not only academic achievement but also students' attitudes, participation, collaborative behavior, and ability to apply peace-related knowledge and skills.
6. **Policy and Institutional Support.** Government and educational authorities should provide policy, infrastructure, and resource support for the use of instructional games in schools. This includes access to appropriate technologies, instructional materials, teacher training, and curriculum guidance to ensure game-based learning is implemented effectively and equitably.

Overall, the study suggests that improving peace education requires more than merely including peace-related content in the curriculum. Its effectiveness also depends on how that content is taught. The use of well-designed instructional games offers a promising educational technology strategy for creating more active, participatory, and meaningful learning experiences

that support students' understanding of peace and the development of attitudes and skills associated with peaceful coexistence.

REFERENCES

- CAdedaja, G. O & Fakokunde, J. B (2010). A Survey of the Use of Instructional Games as a Method for Peace Education. *Nigerian Journal of Social Studies*. Xiii (1&2), 213-224
- Adesina, A. S. O (2012). State of Universities and Secondary School Teachers' Use of Instructional Strategies for Teaching Social Studies in South Western Nigeria. *Journal of Education and Practice*. 3 (14), 1-9. (Paper)ISSN: 2222-1735, (Online) 2222-288X
- Afegbua, A I. (2014). Conflicts and political instability in Nigeria: Causes, consequences, and prospects. Retrieved from <http://chrisdonasco.blogspot.com.ng/2014/12/conflicts-and-political-instability-in.html>
- Akubue, F. N & Ezegebe, B. N. (2013). Peace education and conflict resolution in post-primary schools: The role of the teacher. *International Journal of Research in Arts and Social Sciences*. 5, 392-401
- Amr, K. (2012). Learning Through Games: Essential Features of an Educational Game. *Dissertation submitted in partial fulfillment of the requirements for the award of Doctor of Philosophy in Instructional Design, Development, and Evaluation in the Graduate School of Syracuse University*.
- Can, G. (2003). Perceptions of prospective teachers toward the use of computer games with educational features in education. *Unpublished MS Thesis, Middle East Technical University*.
- Carbonaro, M., Szafron, D., Cutumisu, M., & Schaeffer, J. (2010). Computer-game construction: A gender-neutral attractor to Computing Science. *Computers & Education*, 55(3), 1098-1111.
- Dickey, M. D. (2010). Murder on Grimm Isle: The impact of game narrative design in an educational game-based learning environment. *British Journal of Educational Technology*. doi:10.1111/j.1467-8535.2009.01032.x
- Edinyang, S. O & Ubi, I. E. (2012). Relative effectiveness of inquiry and expository methods of teaching social studies in Akwa-Ibom State, Nigeria. *British Journal of Arts and Social Sciences*. 8 (1), 95-102. ISSN:2046-9578
- Ekpenyon, O. E. (2011). The social and political roots of conflict in Nigeria: The role of the church. *American Journal of Social Issues and Humanities*. 1 (2), 117-136. ISSN: 2276-6928
- Ekwueme, L.U., Odunuga, A.F. & Ogunrinade, D.O.A. (2013). Promoting peace and culture in Nigerian higher institutions through the use of music education. *Educational Research and Reviews*, 8 (12), 801.
- Gee, J. P & Hayes, E. (2010). *Women and Gaming*. New York, NY: Palgrave Macmillan
- Hornby A.S. (2006). *Oxford Advanced Learner's Dictionary of Current English*. Seventh Edition. New York. Oxford University Press.
- Hromek, R. P. (2004). *Planting the peace virus: Early intervention to prevent violence in schools*. Bristol, UK: Lucky Duck.
- Hromek, R. & Roffey, S. (2009). Promoting social and emotional learning with games "it's fun and we learn things". *Simulation & Gaming*, 22(10), 5.
- Huang, W. H. (2010). Evaluating learners' motivational and cognitive processing in an online game-based learning environment. *Computers in Human Behavior*. doi:10.1016/j.chb.2010.07.021
- Ilufeye, S. O. (2009). Domestic terrorism and security threats in the Niger Delta region. *Nigeria Journal of Social Science* 20 (1), 31-42
- Light, R. (2002). The social nature of games: Australian preservice primary teachers' first experiences of teaching games for understanding. *European Physical Education Review*, 8, 286-304.
- Mazer, A.R. (2002). *A Network for Promoting Peace Education in the 21st Century: Personal Observations and Experiences*. University of California, Los Angeles.
- Ogundele, M. O., Musa, J. M & Jimba, D. N (2015). Peace education programme in Nigeria schools: problems and prospects. *Educational Research International*. (2), 125-129. ISSN:2307-3721, EISSN: 33307-3713
- Pannese, L. & Carlesi, M. (2007). Games and learning come together to maximize effectiveness: The challenge of bridging the gap. *British Journal of Educational Technology*, 38(3), 442.

- Patil, S. S., & Rakkasagi, J. V. (2013). Infusion method of teaching peace education to secondary school children. *International Journal of Scientific Research*, 2 (9), 112–113. ISSN: 2277-8179
- Papastergiou, M. (2009a). Digital game-based learning in high school computer science education: impact on educational effectiveness and student motivation. *Computers & Education*, 52(1), 1–12.
- Prouty, D. (2000). Creativity. *Zip Lines: The Voice for Adventure Education*, 40, 9–11.
- Tripp, E. S. T. & Bichelmeyer, B. (1990). Rapid prototyping: An alternative instructional design strategy. Retrieved on 05/04/2011 from <http://www.quasanwalberta.ca/hedpy597mappin/readingM11-Tripp.htm>
- Turaki, Y. (2012). Historical roots of crises and conflicts in Nigeria with reference to Northern Nigeria and Kaduna State. Retrieved from <https://groups.google.com/forum/#!topic/yorubaaffairs/JcILFIFltOU>
- Tüzün, H., Yılmaz-Soylu, M., Karakuş, T., İnal, Y., & Kızılkaya, G. (2009). The effects of computer games on primary school students' achievement and motivation in geography learning. *Computers & Education*, 52 (1), 68–77.
- United Nations Educational, Scientific and Cultural Organisation (UNESCO) (2005). Peace Education Framework for Teacher Education. Retrieved from [Unesdoc.unesco.org/images/0015/001502/15026e.pdf](http://unesdoc.unesco.org/images/0015/001502/15026e.pdf)
- Van Eck, R. (2006). The effect of contextual pedagogical advisement and competition on middle-school students' attitude toward mathematics and mathematics instruction using a computer-based simulation game. *Journal of Computers in Mathematics and Science Teaching*, 25 (2), 165–195.
- Weis, C. (2001). Building institutions for peaceful change". A Paper Delivered at the Nobel Symposium on the Occasion of the Centennial of the Peace Prize. Oslo, Norway.