Yayi, T. O., Yusuf, A., & Ogunjimi, M. O. (2025, septiembre-diciembre). Virtual Field Trips: Changing Students' Attitude to Civic Responsibility in Nigeria [Excursiones virtuales: un cambio en la actitud de los estudiantes hacia la responsabilidad cívica en Nigeria]. *Revista Virtual Universidad Católica del Norte*, (76), 7-30. https://www.doi.org/10.35575/rvucn.n76a2

Virtual Field Trips: Changing Students' Attitude to Civic Responsibility in Nigeria

Excursiones virtuales: un cambio en la actitud de los estudiantes hacia la responsabilidad cívica en Nigeria

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Recibido: 9 de diciembre de 2024
Evaluado: 20 de agosto de 2025
Aprobado: 28 de agosto de 2025

Tipo de artículo: Investigación

Virtual Field Trips | Revista Virtual Universidad Católica del Norte, 76, 7-30
ISSN: 0124-5821 (En línea)

Abstract

Leveraging technologies, virtual field trips have been advantageous beyond borders in pedagogy. This stems from the need to tackle incivility among youths/students. The use of virtual field trips could solve the challenges of restrictions like COVID-19, fear of accidents etc. Hence, the study investigated the effects of virtual field trips on students' attitude to civic responsibility in Nigeria. The study adopted a 2x2 quasi-experimental design involving pre-test, post-test experimental control group. The population comprised all students of colleges of education in Kwara State, targeting N.C.E 2 students. A purposive sampling technique was used to select 12 students comprising experimental group 1 (virtual field trip); and a Control Group. The experimental group was treated and an adapted questionnaire was used. The reliability of the instrument was carried out using test re-test method yielding 0.72 coefficient. The data were analyzed using percentage, and Analysis of Co-Variance at 0.05 significance level. The findings of the study showed virtual trips changed attitude and no gender and interaction effect was recorded. The study concluded that virtual field trips positively modified the attitude of students to civic responsibility The study recommended training of teachers in ICT.

Keywords: Attitude; Citizenship; Virtual Field Trip; Social Studies; Civic Responsibility; College.

Resumen

Gracias a las tecnologías, las excursiones virtuales han resultado ventajosas en el ámbito pedagógico, trascendiendo las fronteras. Esto surge de la necesidad de combatir la incivilidad entre los jóvenes y estudiantes. El uso de excursiones virtuales podría resolver los desafíos de restricciones como la COVID-19 y el miedo a los accidentes, entre otros. Por tanto, el estudio investigó los efectos de las excursiones virtuales en la actitud de los estudiantes hacia la responsabilidad cívica en Nigeria. El estudio adoptó un diseño cuasiexperimental 2x2 que involucra un grupo de control experimental pre-test, post-test. La población comprendió a todos los estudiantes de las facultades de educación en el estado de Kwara, dirigidos a estudiantes de N.C.E 2. Se utilizó una técnica de muestreo intencional para seleccionar a 12 estudiantes que comprendían el grupo experimental 1 (excursión virtual), y un grupo de control. El grupo

experimental fue tratado y se utilizó un cuestionario adaptado. La confiabilidad del instrumento se llevó a cabo utilizando el método de prueba y re-prueba que arrojó un coeficiente de 0,72. Los datos se analizaron utilizando porcentaje y análisis de covarianza con un nivel de significancia de 0,05. Los resultados del estudio mostraron que las excursiones virtuales cambiaron la actitud y no se registró ningún efecto en el género ni en la interacción. El estudio concluye que las excursiones virtuales modificaron positivamente la actitud de los estudiantes hacia la responsabilidad cívica. El estudio recomienda la capacitación del profesorado en TIC.

Palabras clave: Actitud; Ciudadanía; Excursión virtual; Estudios sociales; Responsabilidad cívica; Universidad.

Introduction

Social Studies is a subject taught at the basic, post basic and higher education levels in Nigeria today. The subject at different levels was meant to fulfill some purposes which ultimately is geared towards national development through citizenship education. National Education Research and Development Council (NERDC) has fashioned out a curriculum to meet these dire intentions at the basic and post basic rung. At the University level, Nigerian University Commission (NUC) makes curriculum for the operation of the Universities while Nigerian Council for Colleges of Education (NCCE) makes curriculum for the colleges. The Benchmark Minimum Academic Standards (BMAS), which are established and overseen by Nigeria Universities Commission (NUC), contain the university curriculum. The Benchmark Minimum Academic Standard for Colleges of Education (National Commission for Colleges of Education, 2012) contains the college of education curriculum, which is created and overseen by the Nigeria Council for Colleges of Education (NCCE). Social Studies at tertiary school level is taught indirectly through General Studies as Citizenship Education.

According to Oluniyi (2011), the essence of citizenship education is to make citizens responsible, thereby making them to know what is to be enjoyed and what to perform. Using concrete evidences, the discipline teaches learners on being literate in politics. This underscores the fact that students should be taught to be critical, probe issues rather than knowing the right or

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ISSN: 0124-5821 (En línea)

wrong alone In essence, citizenship education supplies individual with the necessities for effective living in the society. Present day challenges like covid-19 pandemic, fear of accidents and staggered timetable have inhibited the frequency of physical field trips. Virtual field trips have proven to solve the barrier of place and time, leveraging on technologies.

Virtual field trip is a community-based pedagogy that stimulate learners' interest. Students are usually very happy on hearing they are going out to visit places of interest. This provides enthusiasm for students who are eager to gain authentic experiences. Stannard (2010) researched on utilizing virtual field trips for students inside of the classroom. This outlined the many benefits and drawbacks to offer a reliable virtual field trip experience. Through virtual field trips, most times done inside the classroom without traveling further from the school, is done virtually with less stress on spending a significant amount of money. Most field trips within citizenship education encompasses trips to museums, parks, monuments, memorials, civic centers and a host of other historical landmarks. Teachers in various disciplines following the 21st century trend have begun to use technology to offer students virtual field trips (VFTs). Although, not a perfect substitute to real life field trips, as students do not have the opportunity to tap into all of their senses. Virtual field trips afford the students the opportunity of going beyond the classroom walls and help bring history, economics, geography, civics, to life; and all without ever having students actually leave the classroom. Sriarunrasmeea et al. (2015) observed that students' science affective aspect of learning outcomes can be improved as a result of virtual field trip model.

Hehr (2014) examined virtual field trips as an educational and motivational strategy to teach Iowa history. Dassonneville et al. (2012) also carried out a study on the impact of civic education on political attitudes and behaviour of Belgian late adolescents. According to Raines (2014) web applications have solved many problems which include time, cost and location. Virtual trips affords the student the opportunity of interacting with things of paramount importance and interest. These trips connects real life scenarios with concepts sourced from reference material or what is taught in the class.

Attitude a key variable to this study is an individual's disposition to things or persons. It could be positive or negative or sometimes ambivalent often times as a result of exposure to learning. This is proven by the study of Endurance and Tamunosis (2020) whose finding revealed that the students' positive attitude was influenced by the teachers' interest in teaching Social

Studies. On the other hand, the students' negative attitude towards the subjects affects the teachers' effectiveness in teaching. The study by Khaombi (2016) on factors affecting performance in Social Studies in public secondary schools in Kenya indicated that despite their interest in jobs requiring knowledge of social studies, students have a negative attitude toward the subject. The study also revealed that students' attitude towards the subject affected their performance in the subject. Students who have negative attitudes towards Social Studies are likely to perform poorly than those with positive attitude. In all, it could be inferred that there are some precipitating factors to the study of citizenship education. Deployment of inappropriate strategies or unplanned use of strategies can also mar effective teaching and learning. In the light of this, some strategies will be examined.

Besides the behaviour modification, there are some predisposing factors to embarking on a trip, whether physical or virtual. Among such factors is gender. Gender connotes either of the two sexes (male and female), especially when conceived with reference to social and cultural differences rather than biological traits. The term is also used to denote a range of identities that do not tally to established ideas of male and female. In other milieu, we have other gender like transgender, intersex, non-conforming, personal, and eunuch. For the sake of this study, the male and female gender was used. Hanson & Johnston (1985) reported that women's work trips are significantly shorter than men's in both travel time and distance. Hence, female gender tends to go for less trips. Ukor & Abdulbajar (2019) found out that gender factor has no significant influence on students' achievement in ecological concepts when undergoing a field trip. Conversely, Patiño García & Garzón (2024) negates this when they reported statistical significant differences found in favor of the experimental group (video game) as were the effects on the motivation to learn.

A similar study on effects of gender on upper basic social studies students' academic achievement in educational field trips learning environment in Kaduna state, Nigeria found no significant difference between the mean academic achievement scores of male and female students taught Social Studies using educational field trip (Salihu et al., 2020). This suggests that being a male or female does not influence chances of going on trips. Travel times are unassociated with subjective well-being for both male and female (Sweet & Kanaroglou, 2016). In another study women perform more trips than men regardless of the reason (Sánchez et al., 2014). Moreover, the difference between the number of trips by gender is greater when the reason for the trip is about

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household responsibility. Women have been portrayed to travel more than males (Tilley & Houston, 2016). In the same vein Klimenko et al. (2024) identified gender as a great influence in determining higher risk for the use of social networks for women and video games and sex pages for men. This is due to a lot of reasons that can be adduced. Hinged on past findings, this study attempts to also establish whether gender will be a significant factor in trip experiences. Nevertheless, trips whether physical or virtual has great potentials.

Seifan et al. (2019) study on effect of virtual field trip (VFT) as an introductory tool for an engineering real field trip (RFT) revealed that students highly rated RFTs because it helps their view, create avenue to interact with professional in the field, and experience how theory can be pragmatically used. On the flip side, inadequacy in information greatly reduced the RFT's effectiveness. Their study implied that VFT can actually supplement RFT. Students are pre-informed before the actual or factual learning experience and they also concurrently revisit sites of interest virtually during RFT. According to Çaliskan (2011), virtual field trips are seen as replacements to the physical field trips owing to the challenges experienced in planning and actualising real trips. Disadvantaged students are empowered through virtual trips. Many teachers forget that the constraints to managing and planning trips may hinder learners from reaping the fruits of trips (Clevenger-Bright et al., 2019).

Paul (2020) investigated at the virtual field trips used in sustainable development education. The relevance of experiential real-life studies in a foreign setting is looked into, and their potential for Sustainability Education is underlined, using the example of a study tour provider that specializes in Education for Sustainable Development (ESD). An online instrument was used to comprehend the impact of multidimensional studies trip regarding individual and professional preference. The study involved 100 people who embarked on a sustainability trips. Evaluations were done quantitatively while deductive analysis was also employed. The finding of the study stressed the importance of knowledge transfer, changes in behaviour and mindsets on account of exposure to trips. Adedokun et al. (2012) further lent their voice to the discussion on importance of virtual field trip. It is seen as a viable replacement for physical field trip.

Abdu-Raheem & Olorunda (2019) researched on level of civic knowledge and attitude as antidotes of civic engagement among secondary school students in Oyo State, Nigeria. Findings revealed the level of secondary school students' civic knowledge and engagement was moderate,

while their attitude towards civic engagement was negative. Attitudes of Nigerian children to civility should be reformed so good citizens will be modelled (Enhancingcivic engagement – constructive participation in public life – entails the intrinsic and extrinsic zeal, skills, behavours and cognition that people need to make substantive impacts in their society) (Okuonghae & Omatseye, 2021). Youth can acquire healthy moral views and a commitment to assisting others when given the chance to participate meaningfully in civic life. Colleges of education are established to train mid-manpower for development and they should be devoid of irresponsibility.

To the best knowledge of the researcher, most studies conducted on virtual field trips made use of other disciplines aside from Citizenship Education or Social Studies except for Adediran & Ajiboye (2017). Some are confined to religious studies like Hopkins (2000) and his dependent variable was social responsibility. Beyerlein et al. (2011) conducted a study on trips but to treat youth civic engagement. Many studies conducted are outside Nigeria and this is the gap the study filled.

Specifically, the study investigated effect of virtual field trip on students' attitude to civic responsibility, effect of virtual field trip on students' attitude to civic responsibility based on gender and interaction effects of the treatment and gender on students' attitude to civic responsibility. To guide the study and flowing from the objectives these questions were asked: Is there any effect of virtual field trip on students' attitude to civic responsibility? Is there any effect of virtual field trip on students' attitude to civic responsibility based on gender? Is there any interaction effects of the treatment and gender on students' attitude to civic responsibility?

Theoretical framework

This work anchors on the theory of Edgar Dale because the whole of this study is about direct learning experience with special emphasis on the roles of media. Dale developed the Cone of Experience, which links an audiovisual media alternative to a concrete to abstract continuum, to further extend Dewey's idea of learning by experience (Seels, 1997). Dale classifies learning experiences into two—enactive, or learning via doing, iconic, or symbolic experience. The evolutionary importance of Dale's Cone rests in its attempt to relate media to psychological theory

and the Cone has shaped various sets of media selection guidelines ever since. The importance of audiovisuals for the learning experience is akin to using virtual field trips.

Method

The study adopted a quasi-experimental design involving pre-test, post-test experimental control group. The design is displayed as shown in Table 1.

Table 1

2x2 Pretest, Posttest Experimental and Control Group Design

Groups	Pretest	Treatment	Gender	Posttest
1	O_1	X	m/f	O_2
	……	……	……	……
2	O_1		m/f	O_2

The population for this study was all 7965 students of colleges of education in Kwara State. The target population were all 2433 N.C.E 2 students of Kwara State Colleges of Education. Intact classes were used for the study. Purposive sampling technique was used to select Kwara State College of Education Oro and Kwara State College of Education (Technical) Lafiagi. Kwara State College of Education Oro was the experimental group I and exposed to virtual field trip; students were taken to Immigration Office, Correctional Centre, National Museum and Monuments, National Orientation Agency, Internal Revenue Services and Independent Electoral Commission (INEC) office virtually. Kwara State College of Education (Technical) were being taught in the conventional way.

One instrument; questionnaire was used. Questionnaire on Students Attitude to Civic Responsibility adapted from Civic Measurement Models: Tapping Adolescents' Civic Engagement developed by Flanagan et al. (2007) was adapted to pretest and posttest the students. The questionnaire has two sections. Section A consist of demographic characteristic of the respondents while section B consists of items on attitude to civic responsibility.

The instrument is structured on a four-point Likert scale of strongly agree (SA), agree (A), strongly disagree (SD) and disagree (D). The validity was ascertained by three lecturers in the

Department of Social Sciences Education; an expert in Measurement and Evaluation and the other two from Social Studies Education and Curriculum. The reliability of the instrument adapted from Civic Measurement Models: Tapping Adolescents' Civic Engagement developed by Flanagan et al. (2007) was carried out using the test re-test method of reliability and co-efficient of 0.72 was derived. The instrument was administered on a set of 50 students in a school (Emmanuel Alayande College of Education, Oyo) that did not form part of the participating schools. The instruments were administered at an interval of two to four weeks. Scores obtained from the first and second administration was collected and tested using Pearson Product Moment Correlation statistic to find the co-efficient of reliability. The data obtained was analyzed using frequency counts and percentage and ANCOVA at 0.05 level of significance. Ethical Clearance was sought and was subsequently approved by the University of Ilorin Ethical Review Committee with approval number: UERC/ASN/ 2021/2261. The participants were given liberty of participating or decline participating in the study. Anonymity and confidentiality of participants were held in high esteem while promises of informing them of the outcome of the study.

The researcher took the students in experimental group 1 to Immigration Office, Correctional Centre, National Museum and Monuments, National Orientation Agency, Internal Revenue Services and Independent Electoral Commission (INEC) virtually through a website developed by the researcher. The website is https://timothyopeyemi.wixsite.com/experimentalgroup2vi. The access number to the login area on the site is 012345678903227. The control group followed the conventional instruction without any form of trip. The instructional tools comprised GST 223 unit plan for each topic in the course. The trips were infused into the lectures and covers days outside classroom instruction. The experimental procedure is as follow:

Experimental Procedure

Stage 1: Preparation and Briefing

The facilitator must have sought permission from relevant authorities. Vicarious exposure will be given to students like telling them about the sites to be visited. Students are taken physical

to the school computer room. Students are advised to be orderly and calm. The address of the sites will be given to the participants. That will be an online address at https://timothyopeyemiwixsite.com/experimentalgroup2vi. Participants will be assigned different roles like observer, recorder and discussant during the trip. The password to enter the site is 01234567893227.

Stage 2

The facilitator gives the objectives of the trip to the participants. The objectives are to:

1. See the arrangement of the court.
2. Liaise with the clerk or any official on how laws are made
3. See where offenders are kept in the prison
4. Interact with security personnel on ways of being a good citizen
5. Assess the environment of those undergoing rehabilitation at the centre
6. Note varying degrees of what brought people to the correctional centre
7. See documents like tax clearance and other documents like land permits etc.
8. Have an interaction with revenue agents at the KWIRS
9. See various electoral materials and how it is used
10. Discuss with relevant electoral official.

Stage 3: Engagement in the Activity (Guided Tour)

This stage is the guided tour. At different sites through the website, the lecturer will point out specific items that relate to the educational objectives of the trip. This include watching out for sitting arrangements in house of assembly. Students would be asked to click on the link displaying the site at each point in time.

The students will be shown the maze online and given a tour of the holy chamber at the house of assembly. The students would have been preparing their inquiries for an official there to respond to. Interacting with the appropriate official will be done through a zoom link that acts as a plug-in.

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ISSN: 0124-5821 (En línea)

The students will tour the secure areas of the Police Headquarters while they are there. Point of focus at the site include cell where offenders are kept temporarily. Students can be shown how a statement document looks like. While watching, students put down their observations and questions. This will later be answered via zoom.

At the correctional centre, the students will explore online. While on the site, the relevant officer leads the participants in discussions which will involve the students online. Questions will be asked through that medium also.

At the INEC office, the students will explore round and the most important thing is for participants to see real electoral materials like PVC, card reader, ballot paper, ballot boxes to mention a few. This is also done online. An official leads the session by teaching them what is expected as regards election. Questions can be asked after by the students online via zoom.

At the Revenue Office, the students will explore online. Documents relating to revenue like tax clearance and other documents will be shown to the students. Thereafter, the students will ask their questions online through zoom.

Stage 4: Small Group Learning Activity

Participants at this stage work in pre-assigned groups of 2–3, participants can complete an activity such as discussing what they observed and learnt. The lecturer can also initiate discussion with small groups of participants by asking questions. For instance, the lecturer after finishing at the police site, seeing the deplorable condition of the cell, ask students to suggest ways of helping. Tasks will be given to small groups to deliberate upon for subsequent reporting. This will take like 10 minutes after the whole sites have been explored successfully. A rapporteur will be selected among the groups to take records.

Stage 5: Debriefing and Feedback

Immediately after, the processing of results of the activity and report will follow. During the field trip, the students will exchange and talk about their experiences. This could involve exchanging information online or talking about the outcomes of specified small-group activities,

as well as opinions about particular aspects of the trip or general impressions. The chance to identify and debate issues that came up during the field trip will be given to the students. At the culminating stage which is the climax, students will be encouraged to take home the lessons learnt and apply where necessary. For instance, students are asked to register online for their voter's card and show proof of registration. Culminating activities help learners tie together content they covered in previous class lesson and content learned during the field trip.

Figure 1

Scenes from the computer lab

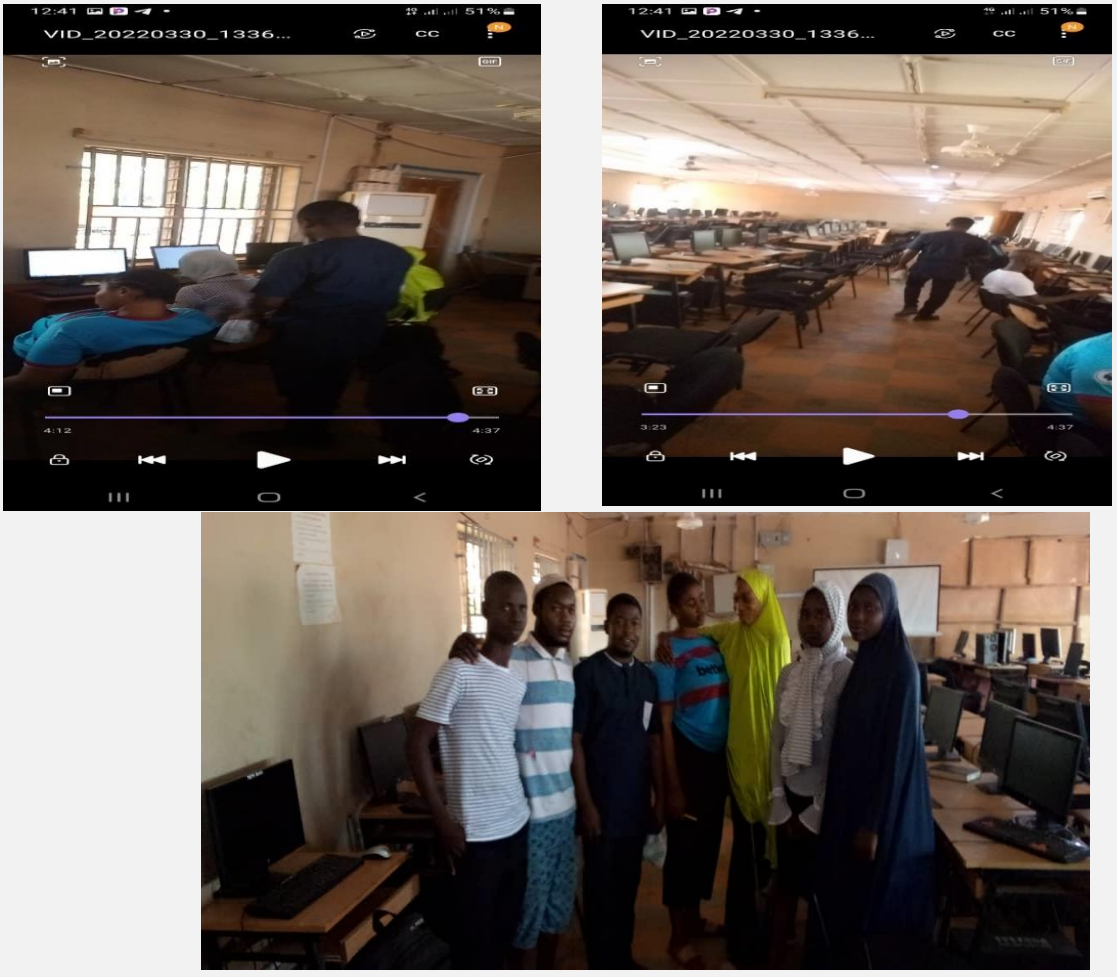

Figure 1 shows some scenes of the computer lab where the students are exposed to the virtual experience at the college of education.

Result

Table 2

Demographic Information of the Respondents

Variables	Frequency	Percentages (%)
Gender		
Male	04	33.3
Female	08	66.7
Total	**12**	**100.0**
Groups		
Experimental 1 (Virtual Field Trip)	5	41.67
Control (Conventional)	7	58.33
Total	**12**	**100.0**

Table 2 reveals the demographic information of the students involved in the study. As shown in the table, 12 students were involved in the study, out of which 33.3% were males, and 66.7 % were females. Also, 41.67 % were taught using virtual field trip, while 58.33 % were subjected to placebo (controlled).

Hypotheses

All research questions are converted to hypotheses.

H_{01}: *There is no significant effect of virtual field trip on students' attitude to civic responsibility.*

To test the hypothesis, the attitude to civic responsibility among students taught using virtual field trip and those taught using the conventional instructional strategy were analysed using ANCOVA. The output of the analysis is shown in Table 3.

Table 3

Analysis of Covariance result of the effect of virtual field trip on students' attitude to civic responsibility

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	189.816[a]	2	94.908	268.255	.000	.984
Intercept	2.261	1	2.261	6.391	.032	.415
Pretest	31.330	1	31.330	88.554	.000	.908
Groups	59.508	1	59.508	168.199	.000	.949
Error	3.184	9	.354			
Total	65020.000	12				
Corrected Total	**193.000**	**11**				

Table 3 shows the calculated F $_{(1,12)}$-value of 168.199 and p-value of 0.00 in which the p-value is less than 0.05 level of significance (0.00 < 0.05). Since the p-value of 0.00 is less than the significance value of 0.05, the null hypothesis which states that there is no significant effect of virtual field trip on students' attitude to civic responsibility is not accepted. Similarly, the observed partial eta square of 0.949 means that the instructional strategies considered in the study accounted for 94.9 % of the changes in the students' attitude to civic responsibility. This means that there is significant effect of virtual field trip on students' attitude to civic responsibility. To determine where the difference lies, descriptive analysis of the scores obtained from the two groups was performed. The differences can be seen in the descriptive table presented in Table 4.

Table 4

Descriptive analysis of the Difference in the Attitude to Civic Responsibility Among Students Taught Virtual Field Trip Instructional Strategy and those Taught Using the Conventional Teaching Method

Groups	No.	Mean	Standard Deviation
Experimental (virtual field trip)	5	77.80	2.06
Controlled	7	70.52	2.23

Table 4 revealed that the mean gain score of the virtual field trip group is greater than that of the control group. This implies that the group taught with virtual field trip perform better than

their peers taught without any trip. In essence, the treatment was effective in changing students' attitude to civic responsibility.

H_{02}: *There is no significant effect of virtual field trip on students' attitude to civic responsibility based on gender.*

Table 5

Analysis of Covariance showing the effect of virtual field trip on students' attitude to civic responsibility based on gender

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	131.072[a]	2	65.536	9.524	.006	.679
Intercept	9.838	1	9.838	1.430	.262	.137
Pre-test	131.072	1	131.072	19.049	.002	.679
Gender	.765	1	.765	.111	.746	.012
Error	61.928	9	6.881			
Total	65020.000	12				
Corrected Total	193.000	11				

Table 5 shows the effect of physical field trip on students' attitude to civic responsibility based on gender. As shown in the table, calculated $F_{(1,12)}$-value = 0.11 and p-value = 0.75 in which the p-value is greater than 0.05 level of significance (0.75 > 0.05). Since the p-value of 0.75 is greater than the significance value of 0.05, the null hypothesis which states that significant effect of virtual field trip on students' attitude to civic responsibility based on gender is not rejected. This result means that there is no significant effect of virtual field trip on students' attitude to civic responsibility based on gender.

H_{03}: *There is no significant interaction effect of virtual field trip and gender on students' attitude to civic responsibility.*

Table 6

ANCOVA showing the interaction effect of virtual field trip and gender on students' attitude to civic responsibility

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	279.166[a]	6	46.528	29.255	.000	.902
Intercept	23.556	1	23.556	14.811	.001	.438
Pre-test	52.630	1	52.630	33.092	.000	.635
Treatments	82.240	2	41.120	25.854	.000	.731
Gender	2.542	1	2.542	1.598	.221	.078
Treatment * Gender	1.423	2	.711	.447	.646	.045
Error	30.218	19	1.590			
Total	147160.000	26				
Corrected Total	**309.385**	**25**				

a. R Squared = .902 (Adjusted R Squared = .871)

Table 6 shows no significant effect of virtual field trip and gender interaction on students' attitude to civic responsibility. This is evident in the F-calculated ($_{2,26}$) value of 0.45 and p-value of 0.65 in which the p-value is greater than 0.05 level of significance (0.65 > 0.05). Since the p-value is greater than the 0.05 level of significance, the null hypothesis is not rejected. Interpreting the analysis separately, treatment had significant effect on students' attitude to civic responsibility with the F-calculated value of 25.854 and p-value of 0.00, in which the p-value is less than 0.05 level of significance (0.00 < 0.05), but gender does not have any significant effect on the students' attitude to civic responsibility as evident in the F-calculated value of 1.598 and p-value of 0.22 which is greater than 0.05 level of significance (0.22 > 0.05). This means that there is no significant effect of virtual field trip and gender interaction on students' attitude to civic responsibility.

Summary of the Findings

Based on the data collected, analysed and interpreted, the following findings were obtained there is significant effect of virtual field trip on students' attitude to civic responsibility $F_{(1,12)} = 168.199$; $p \leq 0.05$). Also, there is no effect of virtual field trip on students' attitude to civic responsibility based on gender ($F_{(1,12)} = 0.11$; $p \geq 0.05$). More so, there is no significant effect of

virtual field trip and gender interaction on students' attitude to civic responsibility ($F_{(2,26)} = 0.45$; $p \geq 0.05$).

Discussion

The first finding revealed that there was a significant effect of virtual field trip on attitude of students to civic responsibility in Nigeria. Hehr (2014) finding is at variance with this work as virtual field trips appears to be a successful and innovative use of technology in the classroom, there is not significant evidence that it was the direct cause of academic improvement. Hehr (2014) observed performance as the dependent variable as opposed to this finding which uses attitude to civic responsibility as its dependent variable. This finding is in support of Ajitoni & Salako (2013) who found out that there was significant effect of field trips on students' knowledge and attitude to multicultural concepts. Similarly Patiño García & Garzón (2024) supports this with statistical significant differences found in favour of the experimental group as were the effects on the motivation to learn. This has great implication for students learning. Students prefer anything done on the internet and they will give it all their time, resources and treasures.

Another finding on effect of virtual field trip on students' attitude to civic responsibility based on gender shown that there is no discernible impact. This is further corroborated by Ukor & Abdulbajar (2019) who found out that gender has no significant influence on students' achievement in ecological concepts when undergoing a field trip. The last finding revealed that there is no significant effect of physical field trip and virtual field trip and gender interaction on students' attitude to civic responsibility. This disagrees with Ogechukwu (2021) who found out that there was a statistically significant interaction effect of field trips and laboratory activities and gender on students' achievement in poultry production. However, this work supports Egwu y Okigbo (2021) who found out that there was a non-interaction effect of teaching strategy and gender on students‟ achievement in ecology. This implies that the effect of teaching strategy was consistent across gender. Buttressing Klimenko et al. (2024) discovered that gender is a contributing factor especially in the use of social media and internet addiction on the psychological well-being of elementary school students. In essence, gender of the students may not affect their

adoption of virtual field trip. Whether they are male or female would not be a factor in shaping their attitude to civic responsibility while using virtual field trip.

The study has successfully added to the list of studies relating to innovations in teaching and learning as well as educational psychology. The outcome of this study has proved virtual field trip to be the best especially in the 21st century that is faced with a lot of challenges ranging from pandemics, accidents and time-table irregularities. Virtual field trip has proved to be potent especially in changing attitude of students to civic responsibilities.

Conclusion

Based on the findings of this study, it was concluded that virtual field trips have very significant impact in shaping and modifying attitudes of students, especially in the digital age which few are migrants and many are natives. The digital space is not alien to the students; hence the students can explore it to have experiential learning experiences. Visiting places for fun or recreation is not so important as visiting in order to learn and imbibe the citizenship qualities expected of every citizenry.

Students are very enthusiastic about going for online trips. This has made them jettison the analog way of doing things while embracing technology. It could be concluded that virtual field trip is the game changer for new generation teachers and students. The emphasis on taking students to places of interest has been eroded due to logistics and paucity of funds. Virtual field trips has filled the gap and answer the question of how to plan a proper field trip.

Recommendations

Arising from the findings of this study, the following recommendations were made:

1. Virtual field trips should be explored sometimes considering the rate of accidents and casualties that may result as a result of movement.
2. Teachers should be trained in the design of websites and packages for smooth running of the virtual field trips in schools.

3. ICT facilities should be provided in schools and where available should be strengthened and fully equipped for the students.

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