Exploring Innovative Evaluation Strategies
for Safety Education in Schools

Oloyede Akinniyi Ojo

Department of Educational Foundations and Curriculum Studies, Faculty of Education, Emmanuel Alayande University of Education, Oyo, Oyo State, Nigeria. P.M.B.1010 ojooa@eauedoyo.edu.ng

Ganiyu Oluwaseyi Quadri

Department of Industrial Psychology and People Management, University of Johannesburg, Auckland Park, South Africa. Email: gquadri@uj.ac.za ORCID ID: https://orcid.org/0000-0002-0364-8297

Wilfred Isioma Ukpere

Department of Industrial Psychology and People Management, University of Johannesburg, Auckland Park, South Africa. Email: wiukpere@uj.ac.za ORCID ID: https://orcid.org/0000-0002-3308-0081

Abstract. *This study explores innovative evaluation strategies for assessing the effectiveness of safety education programs in schools. Traditional methods of evaluation often rely on pre- and post-assessments or student surveys, which may fail to capture the broader impact of safety education on behaviour, awareness, and long-term retention. This study examines alternate approaches to evaluation, including observational evaluations, peer assessments, digital portfolios, and real-time data-gathering technologies, such as mobile applications and gamified platforms. A descriptive design research methodology was used, utilising a mixed-methods approach that integrated qualitative data from interviews with educators and students with quantitative analysis derived from longitudinal surveys and behavioural monitoring. The results highlight the benefits of interactive and adaptive evaluation tools, which allow for continuous feedback and more personalised assessment of student engagement and learning outcomes. The research underscores the need to assess both information retention and the subsequent behavioural changes and mental reactions to safety instruction. The findings suggest that innovative, technology-enhanced evaluation strategies provide an opportunity for extensive impact of safety programs, supporting the development of more effective and tailored educational interventions. The study contributes to the growing field of safety education by offering new perspectives on how to evaluate student learning in ways that foster deeper understanding and long-term safety awareness.*

Keywords: Evaluation Strategies, Behavioural Change, Interactive Assessments, Technology in Education, Safety Education, Schools

1. Introduction

The significance of safety education in schools is paramount since it provides pupils with the information and skills essential for responding to many situations, ranging from natural catastrophes to personal safety issues. Conventional methods of evaluating the effectiveness of these programs, such as surveys and tests, often fall short in assessing long-term behaviour change and the practical application of safety knowledge (Ugbebor *et al*. 2024). This article explores innovative evaluation strategies that go beyond traditional approaches to measure the true impact of safety education programs. By focusing on more dynamic and holistic evaluation techniques, schools can improve their safety education efforts and foster a deeper understanding of its significance among students. There are several ways to define or apply the term "safety of security." A state of safety or protection from danger, injury, or threat; freedom or safety from attacks, harm, or fear or anxiety; precautions taken to prevent theft and sabotage (intentional destruction for political or military gain); and protection of individuals, buildings (properties), organisations, or nations from danger are some examples. It encompasses values that allow people to live in harmony and peace, have access to resources and basic needs, engage completely and freely in all aspects of everyday life and the political process, and have their fundamental human rights secured.

The safety education is to enable students to be aware and understand safety education situations (life and property protection); acquire knowledge about safety education, safety agents and their roles, crimes (cause and effects) and criminal behaviour; to develop practical safety education and security strategies and have confidence to effectively use safety measures at home, at school, market, on the road, while driving, and be able to carry out rescue operation (Ugbebor *et al*. 2024). It will make them safety-conscious and have the skills to observe and report safety risk situations in their communities and take appropriate measures to avoid them. The students will develop the attitude and values of cooperation, peaceful coexistence among communities, tolerance and creativity for solving safety problems without violence; and develop consciousness towards personal safety and the security of others (Anyaogu and Onuoha, 2021).

It helps people to obey rules and regulations as they will be conscious of the consequences of breaking the rules. Care International (2012) stated that the subject matter for PSSE should also be: to create security awareness, instruct on first aid measures and application, safety drills, rescue operations at home, market, hospital, and on the road; fire safety, security do's for the student; letter and parcel bombs, surveillance, sexual assault prevention and general safety and

security policies, rules and regulations: and the learning outcome should be the desire to participate and collaborate.

Masekela, Ngobeni and Sapeng (2024) stated that safety education is not just about developing and improving people through formal and informal education, gathering information, crime prevention and eradication, but also includes basic issues like food and job safety, cyber and physical safety, health and political safety, because of the present safety challenges in the country. They added that all these challenges need to be tackled with issues of unemployment, illiteracy, and ignorance, which are the root causes of violent crimes and insecurity. Anyaogu and Onuoha (2021) indicated that educators and learners need to engage in safety and security strategies to contribute to solutions by equipping them with the necessary educational resources to manage crises or criminal incidents effectively.

Implementation is the process of putting a formal decision into action or putting it into use. In this context, implementation is synonymous with safety education and personal security training (Niemimaa & Niemimaa, 2017). The act of teaching or providing comprehensive knowledge on how to handle safety concerns or operate certain safety equipment is known as instruction. Educators establish instructional goals and objectives, select and execute presentation and communication techniques for the classroom, identify adequate space, determine optimal methods for providing materials and resources to students, and choose appropriate strategies for different subjects and components to be taught.

Therefore, by implementing several unofficial methods to guarantee the safety and security of its citizens using security and regulatory authorities, the Nigerian government provides sufficient control and a suitable secure environment. They oversee providing citizens with safety and security guidelines and procedures, as well as enforcing laws in all spheres of life. The police, the Federal Road Safety Corps (FRSC), the National Agency for Food and Drug Administration and Control (NAFDAC), the National Drug Law Enforcement Agency (NDLEA), the Nigeria Security and Civil Defense Corps (NSCDC), the fire department, National Taskforce Nigeria (NATFORCE), the National Emergency Management Agency (NEMA), the Federal Environmental Protection Agency (FEPA), and others are some examples of these law enforcement organisations (Wikipedia: Security and safety, 2013).

These agencies are the implementers, who are charged with the responsibility of disseminating information and educating the public on issues that will be beneficial to them; they create awareness through interpretations of policy issues and awakening of interest about those issues, especially the issue of safety and security and they do these by engaging the public in active, constructive and participatory planning and execution processes (Chuta, 2019). They can

only accomplish the task by educating the students properly and practically. The agencies require proper management for them to function properly and effectively in terms of funding, supervising, and controlling their activities to attain the nation's goals and objectives in education (Nwachukwu, Ohanele & Egornun, 2024).

Mbanefo (2022) stressed that a good security and safety policy drawn by the government is a prologue to manpower development, productivity, and industrial and economic stability. Therefore, for the education of the students for personal safety and security, an adequate plan must be made, and education should be administered in such a way that the students have equal access to the education. The objectives of the government must be communicated to the agencies that will plan well-articulated non-formal or out-of-school programmes for the students, for the achievement of the objectives based on the government policies. All safety policies are derived from the rights of individuals, the universal right of protection based on citizen rights, duties, obligations, and the client's interest in a given society. Personal life depends on the level of health, means of livelihood, and manner of life (culture/habit), while the environment is our physical surroundings, weather conditions, and influences (social, community, and relations). Hence, the Personal Safety and Environment Security (PSES) education plan put in place must be based on the universal ideals that influence security and safety. The ideals are society, religion, people's culture, government, politics, legislature, resources, staff, economy, institution, technology, management, and environment (Mbanefo, 2022).

1.1 Research Questions

The questions that the current study intends to answer are:

1. How can innovative evaluation strategies better capture the impact of safety education programs on students' behaviour and decision-making in real-life situations?
2. What relationship roles do digital tools, simulations, and gamification play in evaluating the effectiveness of safety education in schools?
3. How can qualitative data, such as student reflections and teacher observations, complement quantitative measures in assessing safety education programs?
4. What is the relationship between the challenges and limitations of implementing innovative evaluation strategies in the context of safety education?
5. How are joint and relative of students' cultural backgrounds and prior experiences influence the effectiveness of safety education programs?

2. Literature review

The participants' perceptions of the best ways to carry out personal safety education for pupils are the main topic of this section. The following strategies were employed for the effective implementation of PSSE for students, these include; Use of targeted messages in the churches and mosques to create awareness; Use of printed materials such as posters/pictorials placed at strategic places with messages like 'Caution', 'Toxic', 'Avoid accident', 'Explosive', 'Drive with care' and so on.; Use of newspapers and handbills; Use of campaign trains or spoken words; Use of television for puppet shows like cartoons; Organised drama that will be aired on the radio and television; Use of guest speakers to address the students at the assembly; Use/formation of safety and security awareness clubs; Government managing of negative propaganda that will bias the minds of the students about security; Use of direct mails through the internet.

According to Bęś and Strzałkowski (2024), who conducted research on the "Methods and Techniques of Implementing a Safety Awareness Program," a successful security program implementation necessitates that users or learners learn the material, comprehend its importance, and apply it. According to him, one advantage of formal teaching methods is that they allow for questions and replies. On the other hand, informal approaches, such as brief reminders or succinct instructions like "Please lock me and keep me safe when you leave" are considerably superior to formal policies. He suggested that security awareness programs may make use of the following instructional resources: mouse pads, tutorials, newsletters, and reminders.

Yang, Dong, and Liu (2022) stated that safety education should be used as a vehicle to implement PSS, and it should be made a compulsory subject in schools. They suggested that the safety challenges can be surmounted using experts to plan the subject curriculum and use the safety and regulatory agencies as instructors, while the professionals (the safety agents) are trained in Colleges of Education. Mbanefo (2022) reported that the key to an effective safety awareness programme is to deliver relevant materials to the audience and disseminate the information through multiple communication channels, such as posters, e-learning, e-mails, and newsletters. They added that training materials and content should be accessible to all concerned; they can be purchased from vendors or developed in-house.

According to Yu, et al. (2023), they identified challenges responsible for safety in education to include; the diversity of culture, religions, languages, ethnic groups etc.; Lack of interest and support from the government in education of students on personal security and safety; The safety

and security agencies are not professional educators; Majority of the students cannot access information from media; lack of well-articulated programs and activities on personal security education for the students; There is no secured friendly environment to impact the knowledge; The safety and security agencies are not motivated and encouraged to educate the students; Most of the students lack interest in security matters and are not cooperative to the agencies; Not empowering the safety and security agencies; by giving them professional training on education-pedagogy; Not giving awards to the different safety and security agencies so as to encourage them contribute to national security; Not stimulating and nurturing a co-operative, friendly environment to enable both the government and the public work for security; No monitoring and supervision of the utilisation of the funds sent to the agencies for organising programs for the students.

Bęś and Strzałkowski (2024) and Mbanefo (2022) stated that multiple communication channels that are relevant to the audience will be used in disseminating information. It was their perception that the use of targeted messages in the churches and mosques, printed materials placed at strategic places, newspaper adverts and handbills, and the use of television for puppets would be very effective. They also agreed that organising drama in English and the local language, the use of guest speakers to address the students at the assembly, the formation of clubs, and the use of the Internet will be very effective. These responses unanimously agreed with what Anyaogu and Onuoha (2021) reported that non-school public, who need different non-formal programs and activities to educate them. They also agreed that the different non-formal strategies can be accessed by the students as suggested by Seaman (2020) who said that it is the type and nature of the society that determines how to plan and administer education in it; their education has to be planned and administered in such a way that the beneficiaries have adequate and equal access to the education.

The findings from research question two revealed that the respondents agreed with the items raised on challenges that can be faced by the implementers of PSSE for the students. They agreed that the implementer will face challenges of diversity in culture, language, religion, poverty, and lack of interest and support from the government in the education of students. These findings are applicable to the findings of Anyaogu and Onuoha, who stated that the non-school public has different characteristics that will pose a challenge in educating them. They agreed that safety and security agencies are not professional educators and are not given professional training on education pedagogy, nor given awards to encourage them to contribute to national security.

This is in line with Liesen (2017), who suggested that the staff of the agencies should be trained in colleges of education. They strongly agreed that the majority of the students cannot

access information from the media and lack well-articulated programmes and activities on personal security education for the students. This contradicts the findings by Elliott and Ziegler (2020), who stated that the training materials should be made accessible to all concerned. They responded that there is no secure, friendly environment to impart knowledge when there is no stimulating, cooperative, friendly environment to enable both the government and the public to work for security. They also agreed that there is no monitoring and supervision of the utilisation of the funds sent to the agencies for organising programs for the masses. This finding is in line with Sugiharti, Muttaqin, and Ramadhani (2021), who suggest proper management of funds, supervision, and control of the activities of the agencies that implement the program.

2.1 Theoretical frameworks

This study is based on Control Theory, introduced by William Glasser in 1969. The theory addresses the behaviour of dynamical systems and the modification of that behaviour. The primary aim of control theory is to regulate a system. To achieve this, a controller is developed to oversee the system's activities. Key considerations include analysing the system before determining the most effective control strategy or assessing the feasibility of controlling or stabilising the system. Subsequently, various control strategies are devised.

Control theory in sociology posits that individuals abstain from deviant actions due to various reasons that regulate their inclinations to violate social standards. The idea elucidates why individuals often refrain from acting on deviant desires (Erickson, Crosnoe & Dornbusch, 2000). This distinction arises from the fact that some controls are internal, whilst others are external. Internal controls pertain to an individual's conscience and drive for success, while external controls include influences from parents, peers, and legal regulations (Hirschi, 1969). Control theory links normative conduct with socialisation and social connections. Individuals who are more socially integrated from childhood and sustain robust interpersonal connections are less prone to exhibit aberrant behaviour. Control Theory encompasses the notions of stability, controllability, and observability. Stability refers to the condition or characteristic of being stable. Controllability pertains to the capability of inducing the system into a certain state by the application of a suitable control signal. Observability pertains to the capacity to monitor the system's status to ascertain its behaviour for the purpose of stabilising the system (Glasser, 1969).

The research primarily examines the role of a school system in sustaining social order. It posits that society comprises several institutions or organisations that collaborate to establish ordered relationships and maintain social order and stability. Students must have access to

fundamental necessities, including food, safety, security, peacekeeping, housing, and political engagement, for the school to preserve discipline. Inadequate fulfilment of fundamental needs may result in aberrant conduct. Furthermore, when children arrive at school, they have certain wants or motivations that need fulfilment. These are demands that drive students to act following their aspirations to attain their desired goals.

3.   Methodology and materials

This study investigates innovative evaluation approaches for safety training in schools using a mixed-methods approach that integrates quantitative and qualitative research methodologies. The study used a descriptive survey approach to enhance the systematic characterisation of the existing circumstances related to the research subject. The research population comprises secondary school teachers in Ibadan Metropolis, Oyo State. From the carefully designated group, 69 secondary school teachers were selected using a purposive sampling approach. Key stakeholders, including teachers, students, parents, and safety education professionals, participated in surveys and semi-structured interviews to get a thorough grasp of the assessment techniques used. The surveys assessed perceptions of safety education program effectiveness, while interviews provided qualitative insights into the real-world application of learned skills.

 The information obtained from surveys and interviews was examined using a mix of statistical analysis for quantitative data and theme analysis for qualitative data. This two-pronged strategy will enable a more thorough comprehension of the quantifiable and subjective effects of safety education initiatives. Counts of frequencies and basic percentages were used to analyse respondents' demographics, whilst multiple regression analysis, Pearson correlation, and Product-Moment Correlation (PPMC) analysis were utilised to evaluate the influence of the independent variables. Every result was examined with a confidence level of 0.05.

4.   Result and discussion

The summary of the data analysis is discussed below:

Fig.1: Map showing correlations between variables

Conceptual Correlation Map of Variables in the Study
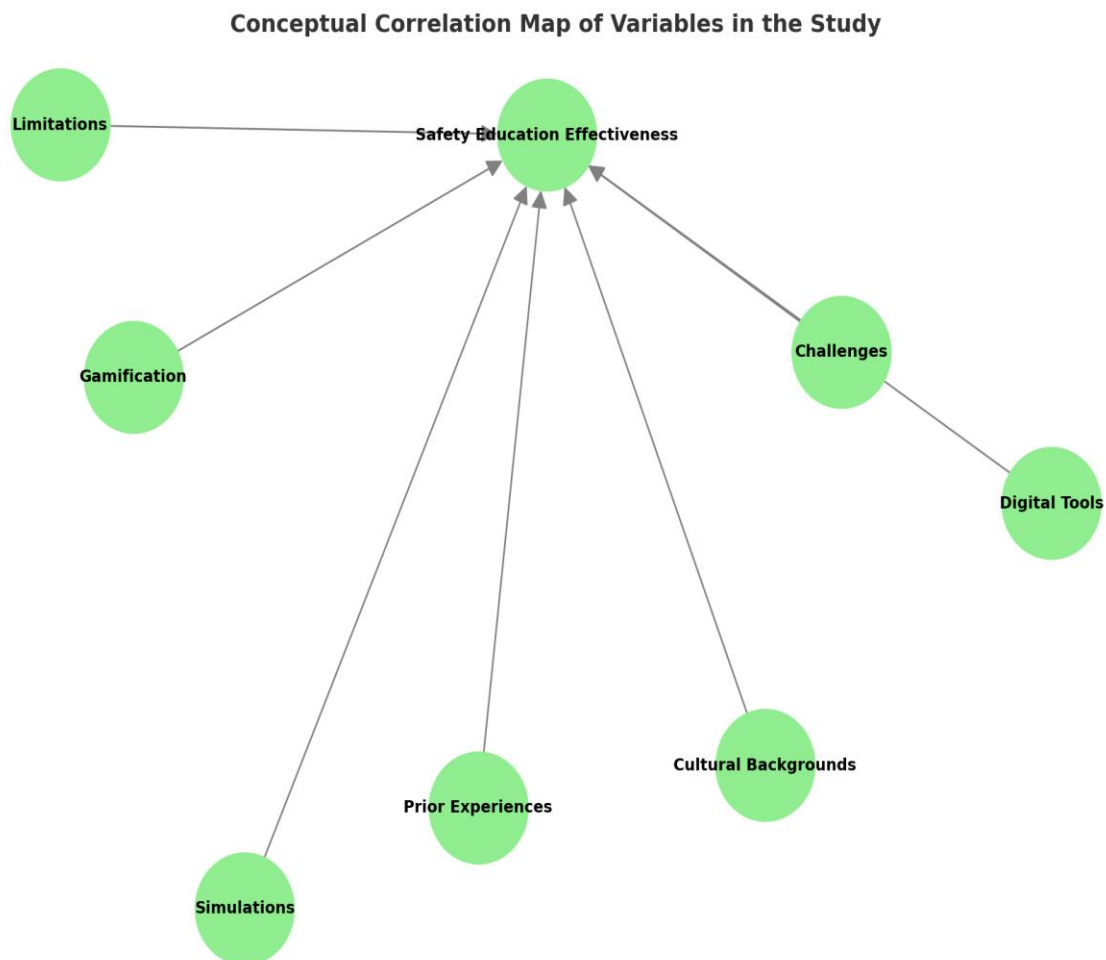
Analysis of Demographic Characteristics of the Respondents

Source: Authors' Field survey 2025

Table 1: Distribution of Respondents by Gender

Gender	Frequency	Percentage
Male	45	65.2%
Female	24	34.8%

Total	69	100.0

Source: Authors' Field survey 2025

Table 1 indicates that 45 respondents, or 65.2%, were male, while 24 respondents, or 34.8%, were female. These indicate that the vast majority of responders were male.

Table 2: Distribution of Respondents by Age

Age range	Frequency	Percentage
25 to 35 years	10	14.6
36 to 40 years	24	34.7%
41 to 50 years	35	50.7%
Total	69	100.0%

Source: Authors'Field survey 2025

Table 2 illustrates the frequency distribution categorised by the participants' age group. It shows the age group of respondents with a mean and standard deviation of (40.5±3.22). The result reveals that the age range between 41 to 50 years was 35 (50.7%) while the age range between 36 to 40 years was 24 (34.7%), and the age range between 25 to 35 years was 10 (14.6%) of the total respondents. This implies that the age range between 41 to 50 years had the highest percentage.

Addressing the Research Questions

Research Question One: What relationship do digital tools, simulations, and gamification play in evaluating the effectiveness of safety education in schools? To achieve this, the SPSS was used to calculate the mean and standard deviation.

Table 3: Descriptive Statistics and Correlation among the Variables

Variables	1	2	3	4
Safety Education	1.000			
Digital tools, P<(0.05	.491** .000	1.000		
Simulations, P<(0.05)	.760** .000	.508** .000	1.000	
Gamification play P<(0.05)	.467** .000	.396** .001	.702** .000	1.000
Mean	**68.94**	**34.80**	**83.10**	**84.17**
Standard Deviation	**11.160**	**4.994**	**12.329**	**12.199**

Source: Authors' Field survey 2025

Table 3 presents the Mean, Standard Deviation, and zero-order correlation among the variables. A substantial association was established between the independent variables (digital tools, simulations, and gamification play) and the dependent variable (efficacy of safety teaching) in schools, ranked by magnitude. simulations (r=0.760, p< 0.05), Digital tools (r=0.491, p< 0.05), and Gamification play (r=0.467, p< 0.05) have significant relationships with the effectiveness of safety education. in schools in Oyo State. It suggests a substantial correlation among digital technologies, simulations, and gamification in assessing the efficacy of safety teaching in schools within Oyo State. This agreement was in tandem with that of Pareek (2024); Nawaz, *et al*. (2024) who reported gamification and game-based learning tool use among schools the potential of gamification to enrich educational practices in school, offering a compelling case for further exploration and implementation of game-based learning strategies and that gamification plays positive relationships especially in safety education.

Research Question Two: What is the relationship between the challenges and limitations of implementing innovative evaluation strategies in the context of safety education in school?

Table 4 Descriptive Statistics and Correlation among the variables

Variables	1	2	3
Safety Education	1.000		
Challenges of Innovative Evaluation P<(0.05)	.186** .001	1.000	
limitations of innovative evaluation P<(0.05)	.367** .000	.171** .003	1.000
Mean	32.60	45.75	28.80
Standard Deviation	5.33	13.58	4.77

Source: Authors' Field survey 2025

Table 4 displays the variables' mean, standard deviation, and zero-order correlation. The independent variables were shown to have a substantial link with one another **(**challenges and limitations of implementing innovative evaluation strategies**)** and the dependent variable (the context of safety education) in school in Oyo State, Nigeria in the following order of magnitude: limitations of innovative 2 (r=0.367, p< 0.05) and Challenges of Innovative evaluation (r=0.186, p< 0.05) has significant relationships with the context of safety education in Oyo State, Nigeria. It suggests a substantial association between the problems and constraints of applying novel assessment methodologies within the framework of safety instruction in schools in Oyo State, Nigeria. This conclusion parallels that of Yu et al. (2023), who assert that safety education on electrospinning is a crucial instrument for fostering technical advancements in educational institutions and enhancing knowledge of pertinent safety concerns. Conversely, Nwabuwe and Nwabuwe (2022) articulated in their study that the challenges confronting the early childhood education sector in Nigeria include inadequate educational facilities, insufficient pupil safety,

absence of a structured curriculum, inadequate funding, and a deficiency in the quality of qualified teachers and training.

Research question three: What are the joint and relative effects of students' cultural backgrounds and prior experiences on the effectiveness of safety education programs?

Table 5: The composite effect of independent variables (the effectiveness of students' cultural backgrounds and the influence of the prior experiences) on the effectiveness of safety education programs in Oyo State, Nigeria.

Model	Sum of squares	Df	Means Square	F	Sig.
Regression Residual Total	5184.538 3409.234 8593.771	2 67 69	1036.908 54.269	19.465	.000[b]
R = .777[a]					
R^2 = .603					
Adjusted R^2 = .572					
Std. Error of the Estimate = 7.299					

*Denotes significant relationship at 0.05 significance level.

Source: Authors' Field survey 2025

Table 5 demonstrates how the success of safety education programs in Oyo State, Nigeria, is influenced by both the cultural backgrounds and past experiences of the pupils. Multiple regression coefficients R =.777, R2 =.603, and adjusted R-square = 0.572 are obtained from the outcome. This indicates that 57.2% can be explained by these two factors taken together (Adj.R2=.572). This suggests that the efficiency of safety education programs in Oyo State, Nigeria,

is significantly influenced by the independent variables (students' cultural backgrounds and past experiences). This study is not intended to address the additional factors that account for the remaining variance.

The regression analysis's ANOVA result indicates that the independent factors have a significant composite influence on the efficacy of safety education programs in Oyo State, Nigeria (F (5,64) = 19.465; P<0.05). This suggests that the success of safety education programs in Oyo State, Nigeria, is influenced by both the cultural backgrounds and past experiences of the students.

Table 6: Multiple regression showing the relative effect of students' cultural backgrounds and prior experiences influence the effectiveness of safety education programs in Oyo State, Nigeria

Model	Unstandardised Coefficients		Standardised Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	3.357	9.241	-	.363	.718
Students' cultural backgrounds	.045	.177	.120	1.897	.040
Prior experiences	.070	.173	.243	2.409	.002

*Dependent Variable: access to safety education programs; *Denotes significance at P<0.05.*

Source: Authors' Field survey 2025

The relative impact of students' cultural backgrounds and past experiences on the efficacy of safety education programs in Oyo State, Nigeria, is shown in Table 6 above. The success of safety education programs can be strongly predicted by these independent variables. The findings indicated that students' cultural origins (β =.120; t = 1.897; P<0.05) and prior experiences (β =.243; t = 2.409; P<0.05) significantly influence the efficacy of safety education programs. According to results, prior experiences are the most powerful predictor, followed by students' cultural backgrounds. Therefore, the efficiency of safety education programs in Oyo State, Nigeria, is

significantly influenced by the cultural backgrounds and past experiences of the students. Johnston *et al*. (2023) indicated that students cultivated understanding and cultural safety via engagement in a program that extends to future practice. Consequently, the experience and adaptability to cultural similarities and differences may foster the development of culturally congruent habits, particularly years after the program's conclusion. Chooniedass *et al*. (2025) said that the implementation of cultural safety within the educational system necessitates that students recognise biases and confront problems of colonialism, power dynamics, racism, and discrimination present in the educational framework.

Responses to the interview schedule

To answer the research questions, thematic analysis was adopted to present the findings from the interview schedule. The research questions were used to form the themes and the responses gathered were analysed accordingly to support the study.

Theme 1. **How can innovative evaluation strategies better capture the impact of safety education programs on students' behaviour and decision-making in real-life situations?**
The first theme sought to understand if **the** innovative evaluation strategies better capture the impact of safety education programs on students' behaviour and decision-making in real-life situations. Below is the response from a staff member of the selected schools.

> *Yes, there are tactics that can be used to effectively execute the safety of learners and personal security education. It was their perception that the use of targeted messages in the churches and mosques, printed materials placed at strategic places, newspaper adverts and handbills and the use of television for the puppit would be very effective. They also agreed that organising drama in English and the local language, use of guest speakers to address the students at the assembly, formation of clubs and use of the internet will be very effective They also agreed that the different non-formal strategies can be accessed by the students as suggested and that it is the type and nature of the society that determines how to plan and administer education in it; their education has to be planned and administered in such a way that the beneficiaries have adequate and equal access to the education.*

Furthermore, for 4 staff of the selected schools, evaluation strategies better capture the impact of safety education programs on students' behaviour and decision-making in real-life situations**.** All the respondents said:

> *Yes, there are tactics that can be used to successfully implement students' personal security and safety instruction.*

Five (5) Staff from selected schools also responded to questions on how can innovative evaluation strategies better capture the impact of safety education programs on students' behaviour and decision-making in real-life situations**.** All the respondents said:

> *Four (4) out of 5 interviewees said Yes, while only 1 said no and the reason for disagreement was that the government would increase everything around them if evaluated*

Conclusively, the 4 staff from selected schools were able to share their own views on innovative evaluation strategies to better capture the impact of safety education programs on students' behaviour and decision-making in real-life situations**.** According to them:

> *All the 4 interviewed staff said Yes, innovative evaluation strategies better capture the impact of safety education programs on students' behaviour and decision-making in real-life situations*

Thus, from the above, it can be inferred that the administration and staff have added more values agreements that organising drama in English and the local language, use of guest speakers to address the students at the assembly, formation of clubs, and use of the internet will be very effective. They also agreed that the different non-formal strategies can be accessed by the students as suggested.

Theme 2. How can qualitative data, such as student reflections and teacher observations, complement quantitative measures in assessing safety education programs?

The second theme examines the factors influencing qualitative data, such as student reflections and teacher observations, to complement quantitative measures in assessing safety education programs. The interviewee noted that students' reflections and teacher observations factors influence qualitative data especially when assessing safety education programs. Four (4) staff from the selected schools reported that:

Yes, implementation means to make factors influencing qualitative data, such as student reflections and teacher observations, complement quantitative measures in assessing safety education programs, and the Implementation of something that has been officially decided starts to happen or be used. Implementation in this context is equated with instruction on personal security and safety education. Instruction is the act of teaching or giving detailed information on how to manage safety issues or how to use some safety devices. The instructors identify suitable strategies for diverse topics and units, ascertain the necessary facilities, and determine the optimal provision of materials and resources for learners, formulate instructional goals and objectives, and implement strategies for classroom presentation and interaction.

The responses from 4 staff in selected schools responded to the theme that the factors influencing qualitative data, such as student reflections and teacher observations, complement quantitative measures in assessing safety education programs. All the respondents said:

Yes, safety education is to enable students to be aware and understand safety education situations (life and property protection); acquire knowledge about safety education, safety agents and their roles, crimes (cause and effects) and criminal behaviour; To formulate pragmatic safety education and security strategies, instil confidence in the effective utilisation of safety measures at home, school, market, and on the road while operating a vehicle, and enable the execution of rescue operations. Additionally, resources should be optimally provided to learners, instructional goals and objectives should be articulated, and strategies for classroom presentation and interaction should be selected and implemented.

The five (5) Staff from the selected school also responded to if the factors influencing qualitative data, such as student reflections and teacher observations, complement quantitative measures in assessing safety education programs**.** All the respondents said:

All five (5) interviewed said Yes, because people coming for tourism has made the government and people value the natural resources and this creates a security to guide the environment.

Conclusively, the 4 staff from the selected school were able to share their own views on the theme. According to them:

All four (4) interviewed staff said Yes very well because the concept of the museum and the water at the back gave them more ideas on how to develop the place and for natural resources, which will increase the protection of the community.

From the foregoing natural resources increase the protection in the community, it can be inferred that residents and visitors to historical sites have added more factors influencing the development or preservation of historical sites.

Conclusion

Safety education cannot be delegated to others; it is the responsibility of all towards promoting the Millennium development goals of Nigeria and commercial interests around the world to reduce the rate of insecurity to the barest. Safety education might not be achieved without the government planning non-formal educational activities and programs for the students and making policies for protective measures and a friendly environment.

Consequently, students should always trust their instincts that something may be wrong and take appropriate action using security guidelines to reduce vulnerability. Parents would prefer that their children stay at home and learn skills rather than attend basic education, which exposes them to hazards like kidnapping and molestation when the school atmosphere is threatened by security challenges of any kind. Children may experience discomfort at school and might cease attendance or remain anxious throughout the day if their fundamental safety requirements are unmet. As a result, providing children with a safe education and a secure learning environment lowers the prevalence of violence, cultism, kidnapping, sexual abuse, drug abuse, and bullying, and ensures that both teachers and students are treated equally and that the penalties for violations are applied consistently and fairly.

Recommendations:

Consequent to the results, the following recommendations were proposed:
1. The students should be adequately informed of their immediate surroundings, duties, obligations, and rights to the extent that there is no theft, accident, environmental pollution, or loss of life and property in their environment.
2. There should be a clear safety education policy statement by the government to make planning easier for personal safety and environmental security.
3. The government should through the safety education agencies plan programs and activities for the students to create more awareness of personal safety and security.

References

[1] Anyaogu, R., & Onuoha, K. K. (2021). Educating Children Amidst Insecurity and Covid-19 pandemicin Nigeria: The management Best Practices. African Journal of Innovations and Reforms in Educational Management (AJIREM), 2(1), 1-9.

[2] Bęś, P., & Strzałkowski, P. (2024). Analysis of the effectiveness of safety training methods. Sustainability, 16(7), 2732.

[3] Care International (2012). Personal safety and security. Security and Safety Manual. Retrieved from http://www. coe_dmha.org/care/pdf/ch4pdf (20.03.2016)

[4] Chooniedass, R., Reekie, M., Denison, J., Mercuri, A., Nawara, R., Purcell, N., Oelke, M. & Janke, R., (2025). Embedding cultural safety in nursing education: A scoping review of strategies and approaches. Journal of Professional Nursing, 56, pp.113-129.

[5] Chuta, C. I (2019). The Election Official. Asaba: krisman Prints. 24- 33.

[6] Elliott, S., and Ziegler, C. (2020). The Role of Technology in School Safety Education. Journal of Safety Education, 15(3), 45-60.

[7] Erickson, K. G., Crosnoe, R., & Dornbusch, S. M. (2000). A social process model of adolescent deviance: Combining social control and differential association perspectives. Journal of youth and adolescence, 29(4), 395-425.

[8] Glasser, W. (1998). Choice theory: A new psychology of personal freedom. New York: Harper Collins.

[9] Hirschi (1969). Causes of delinquency. California: University Press.

[10] Liesen, J. J. (2017). Qualitative case study exploring operational barriers impeding small and private, nonprofit higher education institutions from implementing information security controls. Unpublished PhD thesis, Northcentral University.

[11] Johnston, J., McKenna, L., Malik, G., & Reisenhofer, S. (2023). Recognizing and adapting to cultural differences: influence of international educational programs on future nursing and midwifery practice. Journal of Transcultural Nursing, 34(6), 423-430.

[12] Masekela, N. A., Ngobeni, E. T., & Sepeng, P. (2024). Implementation of school safety policy in primary and secondary schools. Research in Educational Policy and Management, 6(1), 11-31. https://doi.org/10.46303/repam.2024.2

[13] Mbanefo, M. C. (2022). Strategies for Effective Implementation of Personal Security and Safety Education for Students. Available at: https://www.researchgate.net/profile/Maryrose-Mbanefo/publication/363805921_Strategies_for_Effective_Implementation_of_Personal_Security_and_Safety_Education_for_Students/links/632f04dc86b22d3db4dbdd18/Strategies-for-Effective-Implementation-of-Personal-Security-and-Safety-Education-for-Students.pdf

[14] Nawaz,I., Cuenen, G., Wets, G.,Paul, R., Ahmed, T. & Janssens, D. (2024). Evaluating the effectiveness of an online gamified traffic safety education platform for adolescent motorcyclists in Pakistan. Applied Sciences, 14(19), 8590. https://doi.org/10.3390/app14198590

[15] Niemimaa, E., & Niemimaa, M. (2017). Information systems security policy implementation in practice: from best practices to situated practices. European journal of information systems, 26(1), 1-20.

[16] Nwabuwe, S. & Nwabuwe, H. (2022). The teachers challenges in teaching safety education in early childhood education: A vision 20: 20:30. International Journal of Advances in Social and Economics, 4(1), 26-29.

[17] Nwachukwu, A. O., Ohanlele, R. C., & Egornu, A. C. (2024). Towards promoting quality assurance in technical vocational education and training for sustainable national development in Nigeria. The Nigeria Jornal Research and Production, 26(1).

[18] Pareek, Sarwesh, "Gamification and Game-Based Learning Tools: A Review and utility for School Libraries" (2024). Library Philosophy and Practice (e-journal). 8229. https://digitalcommons.unl.edu/libphilprac/8229

[19] Seaman, J. (2020). PCI DSS: An integrated data security standard guide. Apress.

[20] Sugiharti, D. K., Muttaqin, Z., & Ramadhani, R. H. (2021). The supervision of village fund management to prevent corruption. PADJADJARAN Jurnal Ilmu Hukum (Journal of Law), 8(3), 356-378.

[21] Ugbebor, F., Aina, O., Abass, M., & Kushanu, D. (2024). Employee cybersecurity awareness training programs customized for SME contexts to reduce human-error related security incidents. Journal of Knowledge Learning and Science Technology ISSN: 2959-6386 (online), 3(3), 382-409.

[22] Yang, J., Dong, X., & Liu, S. (2022). Safety risks of primary and secondary schools in China: A systematic analysis using AHP–EWM method. Sustainability, 14(13), 8214.

[23] Yu, D. G., Li, Q., Song, W., Xu, L., Zhang, K., & Zhou, T. (2023). Advanced technique-based combination of innovation education and safety education in higher education. Journal of Chemical Education, 100(2), 507-516.