

Research Article

Conceptualizing Media Education and Digital Radio for Civic Commitment Among Secondary School Students in Freeown, Sierra Leone

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Abstract

This study examined the effectiveness of digital radio media education in enhancing civic commitment among secondary school students in Freetown, Sierra Leone. A quasi-experimental pre-test/post-test control group design was adopted. Using a multi-stage sampling technique, 240 senior secondary school students (SSS 1–3) were selected from four public secondary schools and equally assigned to an experimental group ($n = 120$) and a control group ($n = 120$). The experimental group participated in an eight-week digital radio podcast intervention on civic issues, delivered via mobile phones alongside the regular curriculum, while the control group received the regular curriculum only. Data were collected using a structured questionnaire measuring civic knowledge, civic attitudes, and behavioural intentions. The instrument demonstrated high reliability (Cronbach's Alpha = 0.87). Data were analysed using descriptive statistics and independent samples t-tests in SPSS (version 26). Findings revealed that baseline civic knowledge among participants was moderate, with cautiously positive attitudes and behavioural intentions. Post-test results showed statistically significant improvements in the experimental group compared to the control group across all outcome measures. Civic knowledge scores were significantly higher among students exposed to the digital radio intervention ($M = 78\%$) than those in the control group ($M = 55\%$), $p < .001$. Similarly, significant differences were observed in civic attitudes ($M = 4.2$ vs. 3.5) and behavioural intentions toward civic participation ($M = 4.4$ vs. 3.6), both at $p < .001$. The study concludes that digital radio media education effectively enhances civic knowledge, attitudes, and participation intentions among secondary school students, especially in resource-limited contexts. It highlights the value of mobile, culturally relevant audio content for promoting youth civic engagement and recommends integrating digital radio into civic education, creating after-school media clubs, strengthening school–NGO–media partnerships, and conducting long-term studies to assess sustained civic participation.

Keywords

Civic Commitment, Media Education, Digital Radio, Secondary Education, Sierra Leone, Educational Technology

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1. Introduction

The twenty-first century educational landscape is increasingly characterized by the integration of digital technologies to enhance pedagogical outcomes. A model for education known as "civic reasoning" seeks to enhance students' capacity and readiness to interact with many viewpoints and gain agency in challenging situations [2, 10]. Learning journalism can inspire young people to think critically about their communities and educational institutions [6].

Student journalists face challenges while deciding which perspectives to include or exclude in order to accurately reflect their topic and create tension in their stories are crucial [3]. Young journalists learn to "draw the line" between concepts that are beneficial and those that are detrimental. It is crucial for journalism educators to frame important concepts like objectivity or multi-perspectival tales in a way that affirms students' intersectional identities and lived experiences [17, 18]. Media education, particularly using accessible technologies like radio, has been identified as a powerful tool for informal and non-formal learning [21]. A cornerstone of this effort has been educational reform, including the reintroduction of civic education as a subject to nurture a culture of democracy and peaceful participation [25]. Through contacts with peers and family as well as educational experiences, young people are socialised into civic and political participation [24]. The usage of news media and interactive communication technology additionally aid in political socialisation [1, 8]. Digital media consumption and production, as well as digital interaction with others, have been shown to foster political participation through psychological mechanisms like social media civic self-efficacy and communication competence [5, 19]. Individuals with communication competency skills can browse and absorb political information, discuss and elaborate on it with others, express their opinions on civic and political issues, and take activities that support those opinions. In family, peer, media, and educational contexts, these abilities foster and facilitate political relationships [20].

In developing nations like Sierra Leone, where traditional education systems face significant challenges including large class sizes, limited resources, and teacher shortages, technology offers innovative pathways for supplementing instruction [23]. Vibrant youth population and a complex socio-political history, traditional civic education often struggles to bridge the gap between theoretical knowledge and practical, engaged citizenship [4, 12]. The digitization of this medium, through podcasts and mobile streaming, presents a new frontier for educational engagement [14]. Despite the inclusion of civic education in the national curriculum and the free quality education from primary through secondary schools, studies indicate persistently low levels of civic knowledge and political efficacy among Sierra Leonean youth [7]. The formal education system is often overstretched, relying on rote memorization rather than critical engagement, which fail to inspire genuine

civic commitment. Digital radio, given its affordability, accessibility, and power as an oral medium and even visual through podcasts streaming online, is posited as a viable solution to this problem, yet its specific impact as a complementary educational tool remains empirically underexplored in the Sierra Leonean context. The challenge of fostering sustained civic commitment among secondary school students in post-conflict and developing nations remains a pressing concern. This gap between curricular intent and student outcome necessitates exploring complementary, innovative, and scalable approaches. This article examines the Conceptualization of Digital Radio and Media Education for Civic Commitment among Secondary School Students in Freetown Sierra Leone.

2. Research Methodology

2.1. Research Design

The study adopted a quasi-experimental pre-test/post-test control group design. Students in the experimental group were exposed to an eight-week supplementary digital radio podcast series on civic issues, delivered via mobile phones alongside their regular school curriculum. In contrast, students in the control group received the regular curriculum only, without exposure to the digital radio intervention.

2.2. Sampling and Sampling Technique

A multi-stage sampling technique was employed in this study. In the first stage, four public secondary schools were randomly selected from the list of public schools in Freetown. In the second stage, 60 students were selected from each school using stratified random sampling based on grade level and gender to ensure adequate representation. This resulted in a total sample size of 240 students, which was considered sufficient to achieve the required statistical power. The students were equally assigned to the experimental group ($n = 120$) and the control group ($n = 120$).

2.3. Instruments for Data Collection

Data were collected using a structured questionnaire developed specifically for the study. The instrument consisted of four sections: Section A: Demographic information, Section B: Civic Knowledge (15 multiple-choice questions), Section C: Civic Attitudes (15 items measured on a 4-point Likert scale ranging from *Strongly Disagree* to *Strongly Agree*), Section D: Civic Behavioural Intentions (10 items measured on a 4-point Likert scale ranging from *Strongly Agree* to *Strongly Disagree*).

2.4. Scope of the Study

The study was geographically confined to public secondary schools in the Western Urban District (Freetown). The intervention content focused on core civic education themes aligned with the national curriculum, including governance, human rights, elections, and community development.

2.5. Data Collection Procedure

Pre-test questionnaires were administered to both the experimental and control groups prior to the intervention. The experimental group subsequently participated in an eight-week civic education digital radio podcast programme, consisting of weekly 30-minute sessions delivered via a shared mobile device and listened to in a group setting after school hours. The podcasts featured local journalists and civic leaders, presenting civic issues in an engaging, magazine-style format. Meanwhile, the control group continued with their regular school routine without exposure to the intervention. At the end of the intervention period, post-test questionnaires were administered to both groups. The target population comprised senior secondary school students (SSS 1–3) in selected public secondary schools in Freetown. The estimated population size was 300 students.

2.6. Validity and Reliability of the Instruments

Content validity was ensured by submitting the questionnaire to two experts in educational broadcasting research and one expert in civic education. Their comments and suggestions were incorporated to refine and improve the instrument. Reliability was established through a pilot study involving 30 students who did not participate in the main study. The internal consistency of the Likert-scale items in Sections C (Civic Attitudes) and D (Civic Behavioural Intentions) was assessed using Cronbach's Alpha.

2.7. Test of Instrument Using Cronbach's Alpha

The pilot study produced a Cronbach's Alpha coefficient of 0.87 for the combined civic attitudes and behavioural intentions scales. This value indicates a high level of internal consistency and reliability, in line with the criterion recommended

by Nunnally [16].

2.8. Data Analysis

Data were cleaned, coded, and presented using descriptive statistics (mean, standard deviation) and inferential tables. Data were analysed using the Statistical Package for the Social Sciences (SPSS version 26). Independent samples t-tests were used to compare the post-test mean scores of the experimental and control groups on civic knowledge, attitudes, and behavioural intentions, controlling for pre-test scores.

3. Results

RQ1: What are the baseline levels of civic knowledge, attitudes, and behavioural intentions among the study participants?

The baseline levels of civic knowledge were moderate (Mean Pre-test Score = 52%) (Table 1), while attitudes and behavioural intentions were cautiously positive but indicated low levels of perceived efficacy.

RQ2: What is the difference in civic knowledge gains between students exposed to the digital radio intervention and those who are not?

There was a statistically significant difference in the post-test civic knowledge scores between the experimental group ($M=78\%$, $SD=4.21$) and the control group ($M=55\%$, $SD=5.17$); $t(238) = 8.45$, $p < .001$ (Table 1).

RQ3: What is the difference in attitudes towards civic engagement between students exposed to the digital radio intervention and those who are not?

There was a statistically significant difference in the post-test civic attitudes scores between the experimental group ($M=4.2$, $SD=0.51$) and the control group ($M=3.5$, $SD=0.63$); $t(238) = 5.12$, $p < .001$ (Table 1).

RQ4: What is the difference in behavioural intentions towards civic participation, between students exposed to the digital radio intervention and those who are not?

There was a statistically significant difference in the post-test behavioural intentions scores between the experimental group ($M=4.4$, $SD=0.48$) and the control group ($M=3.6$, $SD=0.72$); $t(238) = 6.89$, $p < .001$ (Table 1).

Table 1. Summary of Pre-test and Post-test Mean Scores.

Variable	Group	Pre-test Mean	Post-test Mean	t-value	p-value
Civic knowledge	Experimental	52.1%	78.3%	8.45	<.001
	Control	51.8%	55.2%		
Civic Attitudes	Experimental	3.1	4.2	5.12	<.001
	Control	3.0	3.5		

Variable	Group	Pre-test Mean	Post-test Mean	t-value	p-value
Behavioural Intentions	Experimental	3.3	4.4	6.89	<.001
	Control	3.2	3.6		

4. Discussion of Findings

Findings from the study provide valuable insights into the complementarity of digital radio and civic education for responsible citizenship among young people (youth), especially secondary school children in Freetown. These insights shed lights on their engagement with media broadcasting and education, and its availability within their reach and use. The outcomes for the pre-test and post-test mean scores overwhelming. There is a score of 52.1% and 78.3% respectively in the Experimental group and a 51.8% and 55.2% respectively in the control group. Looking at the baseline levels of civic knowledge, the mean pre-test shows a score of 52%, in terms of attitude and behavioural intentions. Though positive, it shows a shows a low level of perceived efficacy.

With the above results, there is need to improve on what Mihailidis [11] argued, "Without a connection to community engagement, civic responsibility, and democratic application, media literacy can fall short of its potential." His concept of "civic media literacy" directly aligns with our proposed model, emphasising the use of media for community voice and action. Applying this framework to Freetown requires consideration of the local context. Sierra Leone has a rapidly growing mobile sector, making digital audio content increasingly accessible. The historical legacy of radio as a trusted medium provides a foundation of credibility. Furthermore, a national curriculum already interested in peacebuilding and citizenship education could be a natural home for this integrated approach.

At the level of behavioural attitudes, in terms of differences between those students exposed to the digital radio interventions and those not, the statistics show a chasm, the experimental group ($M=4.2$, $SD=0.51$) and the control group ($M=3.5$, $SD=0.63$). this figure, though not at a large margin, ties in well with the fact that the potency of radio as a tool for civic engagement in Africa is well appreciated. In a study on talk radio in Kenya, Ndavula and Mberia [15] found that it "provides a platform for public deliberation, which is a key ingredient for a vibrant democracy. Listeners were able to challenge leaders and debate issues of governance directly. Similarly, Myers [13] documented how community radio in post-conflict Sierra Leone itself became a mechanism for reconciliation and local governance, giving voice to marginalized communities. This establishes a strong precedent for radio's civic function, which digital platforms can amplify through on-demand access and expanded interactivity.

Finally, looking at the difference in behavioural intentions

towards civic participation between students exposed to the digital radio intervention and those who are not, show a statistically significant difference in the post-test civic attitude scores. The experimental group ($M=4.4$, $SD=0.48$) and the control group ($M=3.6$, $SD=0.72$). this corroborates what is mentioned in Wilson [22] pedagogy of the oppressed, that critical media literacy encourages students to "read the world" by deconstructing media messages. In the context of civic engagement, this means analyzing how political issues are framed on talk shows, identifying bias in news reporting, and understanding the political economy of media ownership in Sierra Leone. Kahne et al. [9] found that "participatory politics" - using digital tools to voice opinions and mobilise others - are a significant pathway to engagement, but they emphasize that its quality depends on "the presence of supportive contexts and capacities." Media education is the primary vehicle for building these capacities.

5. Conclusion

This study concludes that digital radio media education is an effective complementary approach for strengthening civic commitment among secondary school students in Sierra Leone. By using mobile-accessible digital radio content, the intervention enhanced students' civic knowledge, attitudes, and intentions to participate in civic life. The findings highlight that low-cost, culturally relevant technologies can successfully bridge gaps in formal civic education, especially in resource-constrained contexts. Overall, the study demonstrates that digital radio, when used alongside traditional schooling, can meaningfully engage youth and promote informed, active citizenship. The study recommends integrating digital audio resources into civic education, promoting after-school media clubs, fostering partnerships between NGOs and local media to create youth-focused educational content, and conducting longitudinal research to assess long-term civic participation outcomes.

Author Contributions

Inaku Kenneth Egere: Conceptualization, Resources, Formal Analysis, Methodology, Writing – original draft, Writing – review & editing.

John Peter Bebeley: Conceptualization, Resources, Data curation, Methodology, Formal Analysis, Writing – original draft, Writing – review & editing.

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Writing – original draft, Writing – review & editing.

Samuel Joseph Bebeley: Formal Analysis, Resources, Writing – original draft, Writing – review & editing.

Conflicts of Interest

The authors declare no conflicts of interest.

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