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Effects of Acronym-Mediated Lessons Using HIV/AIDS Lived-Experience Storytelling on Pupil-Centered Sexuality Dialogue among in-School Adolescents, Kabwe, Zambia

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Abstract

Teacher embodiment of sexuality taboos in conservative settings produces linguistic avoidance and euphemistic instruction, functioning as a hidden curriculum that transmits shame and silence. This self-censorship undermines curricular fidelity in comprehensive sexuality education and reduces information uptake, contributing to premarital sexual behaviour and school dropout due to pregnancy. Intervention studies testing solutions to teacher-induced barriers remain scarce. This eight-session quasi-experimental study over six weeks evaluated acronym-mediated lessons using HIV/AIDS lived-experience storytelling, delivered by trained sd-PLWHIV facilitators, to overcome teacher-based barriers and enhance pupil-centered dialogue. Purposive sampling with maximum variation ensured diverse representation of adolescents with low assertiveness for refusal of sexual advances in Kabwe, Central Province, Zambia. Intact Grade 10 classes were assigned to conditions: experimental group, n = 38, received acronym-mediated lessons through HIV/AIDS lived-experience storytelling from sd-PLWHIV facilitators; control group, n = 34, received standard teacher-led sexuality education. Pupil-centered sexuality dialogue was measured via structured observation of questions asked, hands raised, comments made, and discussions initiated. The experimental group showed significantly greater post-test dialogue frequency after controlling for pre-test scores, $F(1, 69) = 145.78$, $p < .001$, with a large effect size, partial $\eta^2 = .68$. We rejected the null hypothesis. Observations indicated teacher-induced avoidance in controls was associated with learner disengagement, whereas the intervention produced pupil-initiated dialogue. Acronym-mediated lessons using HIV/AIDS lived-experience storytelling are a viable strategy to attenuate shame-based silence and reframe sexuality discourse from teacher-controlled avoidance to pupil-centered engagement, with potential implications for anti-premarital sexual behavioral intention. Strengths, limitations, and implications are discussed.

Keywords: Acronym-Mediated Instruction, HIV/AIDS Lived-Experience Storytelling, sd-PLWHIV Facilitation, Linguistic Avoidance, Pupil-Centered Dialogue, Comprehensive Sexuality Education, Quasi-Experimental, Zambia

1. Introduction

In Zambia, accurate, age-appropriate, culturally relevant, non-judgemental information about developing anti-premarital sexual behaviour is provided for in the secondary school biology syllabus (MoE, 2013). The 2013 Ministry of Education curriculum noted that learners need assertiveness skills to refuse premarital sex and to avoid pressuring others for sex. One of the many curriculum goals is to achieve abstinence or desistence among pupils. The curriculum's definition of abstinence is in line with Greenan's (2019) definition as "postponing sex or never having had vaginal sex or refraining from further sexual intercourse if sexually experienced…or not engaging in coitus". To the contrary, pregnancy rates among in-school adolescents are exhibiting a notable increase. Table 1.1 presents a striking picture of teenage pregnancies among secondary school girls in Zambia. The first column breaks down the total number of girls who became pregnant, those readmitted to school under the re-entry policy, and the corresponding percentages.

Table 1.1: Pregnancy-Related Dropout and Re-enrolment (2007-2023)

Year	2007	2008	2009	2011†	2015	2018	2019	2020	2023
N^0 Preg	1,223	1,566	1,863	1,778	3,105	3,460	6,477	4,156	3,965
Re-Adm	356	378	451	532	672	504	3,987	3115	2915
% Re-Adm	29.1	24.1	24.2	29.9	21.6	14.5	62	75	92.5

Source: Ministry of Education (2023): An evaluation of the re-entry policy in Zambia

† *The gap in data between 2011 and 2015 is noted. Despite efforts to document cases at the district level, a comprehensive national picture remains elusive because the data have not been aggregated into a unified overview.*

A picture is emerging, among several other factors, that school instruction is failing to equip pupils with the knowledge and assertiveness needed to prevent pregnancy, and the numbers are still rising. The scale of the problem is severe. UNFPA reports show that between 2011 and 2019, 120,024 girls — mostly in primary school — became pregnant and dropped out. The annual numbers have since increased: 15,222 in 2019, 16,419 in 2020, and 17,924 in 2023 were forced to leave school due to pregnancy (UNFPA,2018). The 2024 ZDHS estimates that about 2,600 adolescents become pregnant each year.

In Central Province, where this study is situated, the burden is stark. ZDHS 2024 data show 6.7% of 15-year-olds and 13.6% of 17-year-olds had ever been pregnant, rising to 27.3% for 18-year-olds and 39.7% for 19-year-olds. Rural areas are hit harder at 36.2% compared to 18.6% in urban areas. Ministry of Education statistics confirm the province carries an equal share of in-school teenage pregnancy. These rates point to gaps in knowledge and skills that schools should provide. High pregnancy rates confirm premarital sex among pupils, but also indicate low or inconsistent use of protection. That gap is measurable: 49.0% of males and 45.9% of females aged 15–24 in the province showed little knowledge about HIV transmission and prevention — nearly half lack basic information. Risky behaviour is also evident, with 4.7% of females and 27.2% of males reporting two or more sexual partners in the past year, multiplying vulnerability to HIV(UNFPA, 2024; Chanda *et al*., 2023; UNFPA Zambia, 2022; Mazaba ML, 2017). The consequences undermine both health and education goals. With national HIV prevalence at 12.6% in women and 6.9% in men, unprotected premarital sex continues to fuel STIs and new HIV infections among adolescents — a group already seeing a rise in cases despite overall declines in sub-Saharan Africa (Chanda *et al*., 2023; Mazaba ML, 2017). For 14–19-year-olds globally, pregnancy and related complications are the leading cause of death. In Zambia, pregnancy often triggers child marriage, permanently removing girls from school. It also brings mental health problems, unsafe abortions, lifelong emotional distress, and poor academic performance (Ayu *et al*., 2019). Collectively, these outcomes devalue the government's investment in free education.

Table 1.2 shows the number of officially reported pregnancy cases at the X. School Y, which housed the control group, had similar characteristics. The school population averaged 350 girls each. The trend is irregular, but what emerges points to an occurrence of premarital sex among in-school adolescents.

Table 1.2: Number of officially reported cases of pregnancy at School X

Grade	2018	2019	2020	2021	2022	2023
10	4	3	3	4	3	3
11	4	6	6	4	4	4
12	1	1	4	2	2	1
Number of girls who got pregnant/year	9	10	13	10	9	8

Field data, School X, 2023 School Guidance and Careers Officer

However, it is a common observation in most classrooms in Zambia that spreading corrective or preventative information to pupils focused on abstinence or desistance from premarital sex remains a difficult communicative task. The teacher's hesitance, euphemisms, avoidance of critical information, and withdrawal attitudes mar the sexuality health messages. Put differently, teacher embodiment of sexuality taboos in conservative settings produces linguistic avoidance and euphemistic instruction, functioning as a hidden curriculum that transmits shame and silence. This self-censorship undermines curricular fidelity in comprehensive sexuality education and reduces information uptake, contributing to premarital sexual behaviour and school dropout due to pregnancy. Teachers' hesitance has been reported elsewhere (Baku *et al*., 2018). The curriculum designers hoped that promoting premarital sexual advance refusal assertiveness through teacher-pupil interactions would provoke anti-premarital sexual behaviour among pupils (MoE, 2013). Biology teachers are well-positioned to provide sexuality education to in-school adolescents, especially in Zambia, where school biology is compulsory, and pupils show positive attitudes towards the subject. However, biology teachers' comfort level with sexuality is central to teaching anti-premarital sex (Greenan, 2018; Graham & Smith, 1984). Teachers have previously played critical roles in shaping adolescents' attitudes towards a variety of life issues, including sexuality and sexual health. If well implemented, a significant growth in assertiveness for premarital sexual advance refusal can reduce sexually transmitted infections (STIs), early sexual debut, multiple sex partners and low, inconsistent condom use (Daminabo, Teibowei & Agharandu, 2022) and it, additionally, can equip learners with the awareness and skills they need to protect their health and develop good relationships in the transition to adulthood (Sani *et al*., 2016; Chandra-Mouli V *et al*.,2019). Previous studies have shown that if adolescents are provided with the right information, they can make personal and sexual choices that they can take responsibility for (Tolluch & Kaufman, 2013). Furthermore, adolescents would be able to respect other adolescents' views on sexuality.

In reality, however, teachers have found spreading messages about sexulity in line with the curriculum a challenging communicative task. In Tanzania, a study found that some teachers expressed positive attitudes towards teaching sexuality topics, but in practice, they did not fully engage because they felt uncomfortable teaching them (Mkumbo, 2012). A study in Ghana,revealed that teachers did not allow questions from pupils on sexuality related topics (Awusabo-Asare *et al*., 2017). A study has shown that many teachers report feeling unprepared, uncomfortable, and embarrassed when teaching aspects of sexuality (Acharya *et al*., 2018).

Teachers' avoidance conflict with parents if the parents perceived that the issues were contrary to their moral or religiou stance have been reported in Japan (Sato *et al*., 2023) and Nigeria (Emenike *et al*., 2023).

In Zambia, teacher-based barriers, including cultural taboos and religious beliefs, and low self-efficacy regarding sex education topics, align with other studies (Mukonka *et al*., 2023; Chavula MP *et al*., 2022; Yangailo & Mkandawire, 2023; Zulu *et al*., 2019) in their impact on achieving the outcome. The prohibitive cultural taboos and religious beliefs, as well as those held by teachers, posed significant barriers to discussing sexuality-related topics with learners (Chirwa-Kambole *et al*., 2020; Chavula MP *et al*., 2022; Mangwaya & Ndlovu, 2013). Other studies have established that teachers' reluctance to engage in sex communication is not a wilful disregard of the topic's importance but rather out of discomfort with handling sex- related topics (Mukoma *et al*., 2009). Teachers' fear of parents' and religious leaders' reactions and unexpected responses to teachers' conversations around sex with pupils in the classroom made teachers evade conflicts by avoiding seemingly controversial but key issues in their conversation, even when they were provided for in the syllabus (Mukonka *et al*., 2023; Zulu *et al*., 2019; Muzata *et al*, 2023; McCroskey & Richmond, 2013). In Zambia, previous studies have concluded that spreading the message about premarital sex and HIV in the classroom, especially among in-school adolescents, remains a difficult communicative task (Mukanga *et al*., 2024; Muzata, 2023; Menda *et al*., 2022; Mwape & Munsaka, 2020; Zulu *et al*., 2019). Difficulties in understanding and translating certain concepts into local languages presented another challenge (Chavula MP *et al*., 2022). Studies have shown that, as a result of the barriers, pupils have often received incomplete or unclear information (Muzata, 2023; Chitra *et al*., 2020). Because teachers are uncomfortable communicating, their lessons do not meet the information needs of in-school adolescents. As a result, learners have described sex education programs as outdated, unimpressive, and detached from reality (Auteri, 2017), and pupils'acceptance of teachers messages is low. Often, low acceptance is associated with loss of interest, frustration, disengagement, and poor learning outcomes (Jones *et al*., 2021; Gay, 2018).

Extant literature reveals a paucity of intervention studies that field-test pedagogical solutions to teachers' instructional constraints in sexuality education, particularly those aimed at enhancing pupil learning outcomes. Systematic reviews indicate that prior research in sub-Saharan contexts has predominantly adopted descriptive or diagnostic approaches, identifying sociocultural, intrapersonal, interpersonal, and pedagogical barriers that inhibit direct, accurate, and learner-centred discourse on sexuality. In Zambia's culturally conservative and religiously normative environment, teachers' internalisation of sexuality taboos has become embodied in classroom praxis, mediating how sexual and reproductive health content is delivered. The teacher- embodied linguistic avoidance functions as a hidden curriculum that transmits affective messages of shame, stigma, and silence in parallel with the formal school biology and comprehensive sexuality education (CSE) syllabi. A critical manifestation of this hidden curriculum is linguistic avoidance surrounding human reproductive anatomy and sexuality-related terminology. Ethnographic and classroom-based studies report that teachers exhibit high levels of discursive inhibition, leading to consistent recourse to euphemisms, indirectness, or the outright omission of syllabus content. This pedagogical self-censorship compromises curricular fidelity and attenuates information uptake among adolescents, thereby undermining the protective intent of biology or even the CSE. However, it remains empirically undetermined whether integrating local-language acronyms through a structured sd-PLWHIV-led facilitation model can attenuate linguistic avoidance and foster pupil-owned dialogue. Therefore, this study evaluated the effectiveness of acronym-mediated sexuality education lessons delivered by specially trained sd-PLWHIV educators. The study was guided by three research questions:

1. *What is the effect of acronym-mediated sd-PLWHIV instruction on pupils' knowledge of sexual risk, attitudes toward premarital sex, communication self-efficacy, and perceived classroom safety relative to the control group?*
   H0: There is no statistically significant difference in post-test frequency of pupil-centered sexuality dialogue acts between adolescents exposed to acronym-mediated HIV/AIDS lived-experience storytelling and those exposed to conventional teacher-led instruction, after controlling for pre-test dialogue frequency.
2. *How do pupils experience and interpret acronym-mediated storytelling in terms of relatability, acceptability, linguistic access, and stigma reduction during sexuality education?*
3. *In what ways do qualitative accounts of pupil dialogue explain or expand quantitative differences in engagement and communication self-efficacy between groups?*

2. Methods

2.1 Approach and Design

This paper presents qualitative findings from a sub-study embedded within a larger quasi-experimental intervention study that evaluated the effects of acronym-mediated lessons using HIV/AIDS lived-experience storytelling on pupil-centered sexuality dialogue among in-school adolescents in Kabwe District, Zambia. The study employed a mixed-methods approach. The quantitative strand used a pretest-posttest quasi-experimental design with a non-equivalent control group.

2.1.1 Quantitative

2.1.2 Independent Variable

Instructional Condition

a. Instructional condition was a categorical variable with two levels:

- Experimental: Acronym-mediated lessons delivered through HIV/AIDS lived-experience storytelling by trained sd-PLWHIV facilitators.
- Control: Conventional teacher-led sexuality education following the standard Life Skills curriculum.

(Condition: 0 = control, 1 = experimental for ANCOVA).

2.1.3 Dependent Variable

Post-test frequency of pupil-centered sexuality dialogue acts, defined as total questions, hands raised, comments, and discussions initiated per pupil.

Because pupil-centered sexuality dialogue was conceptualized as observable classroom behavior rather than internal attitude, frequency counts from structured observation were deemed more ecologically valid than self-

report scales. This approach reduces social desirability bias common in sexuality research with adolescents. Pupil-centered sexuality dialogue was operationalized as the observable frequency of pupil-initiated verbal engagement with sexuality content during classroom lessons.

2.1.4 Data Collection

Structured non-participant observation was used. Four trained research assistants independently observed each 40 to 60-minute lesson and tallied four behavioral indicators:

1. Questions asked: Number of content-related questions initiated by a pupil.

2. Hands raised: Number of instances a pupil volunteered to contribute to discussion.

3. Comments made: Number of unsolicited, on-topic comments offered by a pupil.

4. Discussions initiated: Number of times a pupil began a new topical thread or shared a personal reflection related to sexual risk.

2.1.5 Instrument Development and Piloting

A structured observation schedule was developed to capture pupil-centered sexuality dialogue. The schedule was piloted in two non-study classes and revised for clarity. Four research assistants completed 6 hours of rater training using video of non-study lessons. Inter-rater reliability on the finalized schedule was $\kappa = .84$, indicating substantial agreement.

Pre-test Data Collection

Following pilot-testing and rater training, baseline data were collected. Two 40-minute Life Skills lessons were observed for all 72 participants prior to group assignment. Using the finalized observation schedule, raters tallied four pupil dialogue behaviors: questions asked, hands raised to contribute, unsolicited comments made, and discussions initiated related to sexuality content. Due to classroom scheduling constraints, School X was observed in the school library and School Y in a standard classroom. An independent t-test confirmed baseline equivalence between physical settings, $t(70) = 0.82$, $p = .41$. Both groups completed the pre-test, and mean scores did not differ significantly, $p > .05$.

2.1.6 Intervention

Schools X and Y were randomly assigned to conditions. The experimental group at School X participated in eight 1-hour face-to-face sessions over six weeks with trained sd-PLWHIV facilitators. The intervention used acronym-anchored storytelling, role-play, and small-group discussion to deliver factual HIV/AIDS content. This multi-modal approach was designed to accommodate diverse learning styles and preferences. The control group at School Y received eight conventional teacher-led Life Skills lessons following the national syllabus.

2.1.7 Post-test Data Collection

Post-test observations used the same schedule and raters, who remained blind to hypotheses. Eight sessions were observed per group. For each pupil, counts from the four behavioral indicators were summed across all eight observed sessions to produce a total dialogue frequency score. Variables

Covariate: Pre-test dialogue frequency, measured using identical procedures during baseline lessons, was entered to control for initial differences in pupil participation.

Although dialogue acts were recorded for each individual pupil and individual totals were used for all inferential analyses, Figure 3 aggregates these data to display the number of unique pupils participating per lesson.

2.1.8 Statistical Analysis

A one-way ANCOVA tested the effect of instructional condition on post-test dialogue frequency, controlling for pre-test frequency. Alpha was set at .05. Effect size was reported as partial η^2. Assumptions of normality, linearity, homogeneity of regression slopes, and homoscedasticity were tested and met.

The control group was subjected to the conventional lecture, question and answer, 'Talk and chalk' approach. No lived experiences storytelling emerged. The teacher used only a standard biology textbook. The dosage was the same. The only methodological difference was the use of acronym-mediated testimony and PLWHIV in the experimental group, while in the control, a regular biology teacher handled the class. At the end of six weeks, both groups finally completed a post-test.

2.2 Qualitative Component

The qualitative component was a generic qualitative descriptive design (QDD) study (Sandelowski, 2000). A QDD was selected to capture participants' experiences, perceptions, and views on the effects of acronym-mediated testimony (Sandelowski, 2000; 2010; Neergaard *et al*., 2009). This approach allowed for a comprehensive understanding of the phenomena, focusing on describing "what" participants said and experienced, with minimal inference (Doyle *et al*., 2020).

2.3 Context

Although comprehensive sexuality education is provided for in the Grade 10–12 Biology syllabus in Zambia, classroom delivery has not yielded the intended behavioral and knowledge outcomes. In conservative settings like Central Province, teachers often embody cultural sexuality taboos, leading them to avoid explicit language and replace accurate terminology with euphemisms or outright silence. This linguistic avoidance operates as a hidden curriculum, teaching adolescents that sexuality is shameful and not for open discussion. As a result, curricular fidelity is compromised and learners receive fragmented information, leaving them ill-equipped to negotiate sexual pressure or delay sexual debut. The gap between policy provision and classroom reality is evident in persistent rates of premarital sexual activity and school dropout due to pregnancy. Adolescents with low assertiveness for refusing sexual advances are especially vulnerable under this teacher-controlled, avoidance-based instruction. Because standard teacher-led delivery fails to break this cycle of silence, this study tests an alternative: acronym-mediated lessons delivered through HIV/AIDS lived-experience storytelling by sd-PLWHIV facilitators, designed to shift discourse from teacher avoidance to pupil-centered dialogue.

2.4 Sample Size

The researcher computed the sample size for the study using Cochran's formula, with a 5% confidence interval. i.e.

$$n = Z^2 * P * (1-P) / e^2$$

Wherein, n = sample size for the study

Z = z-score value at the concerned confidence level of the study, i.e., 95% (z value at 0.95 = 1.96) p = estimated

proportion of population having survey attribute (12% of the population, i.e., 0.12) and e = desired error level permitted in the study (9% level of error, i.e., 0.09).

2.5 Participant Selection

Rigorous participant recruitment is fundamental to the validity of qualitative research because sample composition directly influences the credibility and transferability of findings (Green *et al*., 2018). To obtain information-rich cases, recruitment targeted pupils eligible for the intervention, defined as those with low baseline scores on the modified Rathus Assertiveness Schedule. These scores served as indicators of low assertiveness for refusing premarital sexual advances and formed the primary criterion for inclusion. Criterion-based purposive sampling was supplemented with teacher referrals, whereby classroom teachers identified additional pupils who, based on observation, would benefit from assertiveness training; these referrals substantially increased the participant pool. Qualitative descriptive designs permit any sampling technique or combination of techniques deemed fit for purpose (Doyle *et al*., 2022; Polit & Beck, 2022; Hennink & Kaiser, 2022), and the combined criterion-and-referral approach ensured a mix of respondents with direct experiential knowledge of the phenomenon under study.Using this strategy, purposive sampling constituted the experimental group with 12 female and 26 male pupils. The control group comprised 19 female and 15 male pupils selected through simple random sampling. Male pupils were purposively included on the basis that they are frequently initiators of sexual advances and therefore require equivalent exposure to the intervention content.

2.6 Selection of the sd-PLWHIV

The researcher identified a suitable sd-PLWHIV through the DREAMS Project, which focused on empowering vulnerable adolescent girls and young women with HIV prevention and life skills. The sd-PLWHIV facilitator met specific inclusion criteria similar to Greenan's (2018) definition of sexuality comfort. The criteria included disclosure of past lifestyle mirroring the school adolescents' current lifestyle of engagement in premarital sexual behaviour, being able to effectively communicate about sexual health to individuals, confidence in their knowledge and skill about sexual health, using effective methods to teach about sexual health, knowing the influence lived experiences would generate on the learners, have officially certified documentation of HIV diagnosis, and treatment. Official documentation increased trust and belief in the sd-PLWHIV's story. The researcher leveraged the sd-PLWHIV's experiences and interactions with participants to drive the development of assertiveness skills to reduce premarital sexual behaviour among in-school adolescents. The researcher considered that the sd-PLWHIVs' lived experiences and acronym-mediated narratives had the potential to develop assertiveness skills while minimising adverse effects on learners. The sd-PLWHIV's unique strengths included open self-disclosure and authenticity of the lived experience of premarital sex.

To identify the sd-PLWHIV, the researcher used purposive sampling and snowball sampling, targeting initial DREAMS HIV-positive participants who had self-disclosed their status. Chain referrals were made through informal social networks, enabling access to the sd-PLWHIV with essential characteristics and experiences. After discussing the purpose of the study, agreements were reached. The researcher provided the identified sd-PLWHIV with information sheets, and the consent forms were signed. The researcher adhered to principles of anonymity, individual rights, and privacy, ensuring data confidentiality. Despite the facilitator being female, her experiences were considered relevant to male adolescents' assertiveness for desistance from demanding premarital sex.

2.7 Instrumentation

This study employed a qualitative descriptive design, which prioritizes straight description of experience over theory-testing (Sandelowski, 2000). The design allowed respondents to explain their personal experiences while enabling the researcher to make sense of the data, analyze, clarify, and understand participants' views. To capture a range of perspectives, maximum variation sampling was employed across sex and baseline attitude scores derived from the closed-ended pre-test questionnaire. The same protocol was administered at post-test to ensure comparability. Consistency in data collection and analysis procedures was maintained throughout to enhance the credibility of the research. Data on the experiences, views, and effects of the self-disclosed person living with HIV's (sd-PLWHIV) use of colloquialisms to communicate lived experiences of premarital sex, HIV infection, care, and treatment were obtained using multiple instruments: open-ended reflective questionnaires, semi-structured one-on-one interviews, focus group discussions, and an observation checklist. Interview data specifically targeted case study topics and allowed for an insightful examination of attitudes, values, and perceived obstacles (Creswell, 2014). An observation protocol guided the areas for observation, and the observation checklist included space for researcher reflection. Classroom observations lasted an average of 40 minutes per session in the control group, where instruction proceeded undisturbed. In the experimental group, observations lasted approximately 60 minutes, consistent with literature (Creswell, 2014). Observations encompassed how the biology teacher in the control group and the sd-PLWHIV in the experimental group delivered content on the development of assertiveness for refusal of premarital sex, puberty, and premarital sexual behavior, as well as the extent to which implementation occurred with fidelity.

2.8 Acroynms

Acryonm –mediated lessons use acronyms as a teaching tool or delivery method.The potential strength of a native acryonm –mediated lived experience storytelling teaching strategy on refusal of premarital sex has not been tried in practice before at school X in Kabwe. The researcher, in collaboration with the lived experience experts, research assistants, and counsellors, proposed a set of phrases in local languages that relate to premarital sex, HIV, and assertiveness. Table 1.3 show generated by the team of researchers and the sd-PLWHIV.

Table 1.3: Acronym-Mediated Pedagogical Tools

Acronym	Full Form in Intervention	Bemba/Ionga/Nyanja	Core behavioural Focus	Pedagogical function
Sa (R)	Sexual advances (are there always)	To chase	Identifying and disengaging from unwanted sexual advances	Serves as a foundational, minimal-cue reminder for the core target behavior; anchors all other acronyms to the single actionable outcome of rejection
Sasa	Sexual advances stop at you	rotten	Establishing personal boundaries against unwanted sexual pressure	Reframes advance as a decision point requiring assertive response; avoids fear-based metaphors
Sanosa	Say no on sexual advances	It will come	Issuing a clear, immediate verbal refusal to unwanted sexual pressure	Provides a concise, portable refusal script for high-pressure moments; reduces cognitive load during decision-making; functions as a peer-to-peer signal.
Osayesa	Own Safe And Smart – Educate, Say no, Act responsibly	Don't say yes to sexual advances. Refusing premarital sex (Don't try)	Refusing premarital sexual advances through informed, assertive decision-making	Depersonalises sexuality content via a shared code; scripts assertiveness as a rehearsable sequence; enables peer reinforcement

2.9 Interpretation scoreboard

Table 1.4 shows the OSAYESA Interpretation Scoreboard which redefined the acronym as Own Safe And Smart – Educate, Say no, Act responsibly. The redesign replaces stigmatising, fear-based messages with accurate, non-stigmatising content grounded in medical fact, while retaining the original acronym to preserve local identity and ownership. By framing each letter as an actionable step, the scoreboard positions participants as agents in control of their decisions. Its brevity supports memorability and peer-to-peer diffusion, enhancing sustainability. Collectively, the scoreboard fostered learning by (1) repositioning sexuality content as medically corroborated rather than moralised, (2) scripting assertiveness as a rehearsable skill, (3) providing standardised, sound content that protects teachers, and (4) enabling pupil-led assessment and transfer beyond the classroom.

Table 1.4: OSAYESA Interpretation Scoreboard

Letter	Accurate medical message/Ethicality
O	**Own** your choices – Understand that your body and decisions belong to you.
S	**Safe** practices protect you – Desistence and abstinence are good for us pupils (However, above all, condoms, testing, and honest talk with partners reduce the risk of HIV & STIs)
A	**And** know the facts – Premarital sex as a pupil can be just one way HIV is transmitted through specific fluids: blood, semen, vaginal fluids, and breastmilk. Not by hugging or sharing food.
Y	**You** can say no – It's okay to say no to premarital sex, no matter the peer pressure. Pressure is not consent.
E	**Educate** yourself & others – Get tested, know your status. Share accurate info, not fear.
S	**Smart** steps save lives – If you are exposed to premarital sex, get tested. With ARVs, people with HIV live long, healthy lives.
A	**Act** responsibly for your future – Your choices today shape your health, education, and goals.

2.10 Data Analysis

An ANCOVA was performed on quantitative data at the. Once the researcher had a complete data set, the researcher prepared for ANCOVA analysis by assessing the normality, homogeneity of variance, linearity, and multicollinearity assumptions using the modified Rathus schedule. When the ANCOVA conditions were met, the ANCOVA analysis was performed to assess the effect of the independent variable, the use of an acronym–mediated storytelling approach, on sexual health education acceptance and active engagement relative to the teacher's ordinary teaching methods. From the ANCOVA table, the researcher obtained the F-statistic, which indicates whether there is a significant difference between groups, and the *p*-value represents the probability of observing the F-statistic under the null hypothesis. If the *p*-value is less than 0.05, the null hypothesis is rejected and vice versa.

Qualitative data on participants' views of the acronym-mediated lived-experience storytelling approach were analysed using thematic analysis consistent with a qualitative descriptive design (Doyle *et al*., 2020). The analysis followed Braun and Clarke's (2006, 2020, 2022) six-phase framework. Mezirow's Transformative Learning Theory provided the conceptual lens, with a deductive approach adopted to test and expand the theory against participants' accounts of acronym use in the SD-PLWHIV-led ATP (Doyle *et al*., 2020; Braun & Clarke, 2006, 2020). Reflexivity and regular peer review were applied to mitigate confirmation bias and strengthen credibility (Doyle *et al*., 2020; Cypress, 2019). Analysis was iterative, moving through transcription, familiarisation, coding, categorisation, and thematisation (Braun & Clarke, 2006, 2022). During familiarisation, focus group, interview, and questionnaire transcripts were read repeatedly. Initial descriptive coding organised the data (Wardah, 2021), focusing on participants' experiences with the acronyms OSAYESA, SANOSA, SASA, and SA, and on their acceptance of the acronym-mediated teaching approach in the SD-PLWHIV-led ATP. Related codes were clustered into categories and aggregated into themes that addressed the research questions (Hansen *et al*., 2025; Braun & Clarke, 2006, 2022). Themes captured participants' experiences and perceptions of the SD-PLWHIV-led ATP's use of acronyms, including perceived effects on learning sexual health and assertiveness. Vertical and horizontal analyses examined individual accounts and cross-case patterns (Braun & Clarke, 2022). Constant comparative analysis ensured consistency and identified contradictions across data segments, codes, and categories (Naeem *et al*., 2023). Trustworthiness was addressed through data triangulation and Lincoln and Guba's (1985) criteria of credibility, transferability, dependability, and confirmability. Member checking and expert consultation on coding decisions supported interpretive rigour (Moragan & Nica, 2020; Dahal, 2023). Data collection ceased at thematic

saturation when no new concepts or categories emerged (Naeem *et al*., 2024; Rahimi & Khatooni, 2024; Saunders *et al*., 2018). The analysis yielded rich insights into participants' experiences and perceptions of the SD-PLWHIV-led acronym-mediated learning approach.

2.11 Ethical Consideration

Participants gave informed consent before engaging in the sd-PLWHIV-led intervention. The experimental group was provided with session details. After they consented to participate they were assigned a number (P1, P2, P3...P38) to ensure anonymity. The F or M refers to the gender of the participant associated to that number, e.g. P6-F is participant named 6, and is female. Similarly, the control group was assigned PCY code (PCY 1, 2, 3.. 34). Participants were told of the freedom to withdraw if they felt uncomfortable. The study's ethical framework was designed to address the sensitive nature of involving an openly self-disclosed person living with HIV (sd-PLWHIV) and adolescents. The researcher obtained approval from relevant authorities, including the University of Zambia Humanities and Social Sciences Research Ethics Committee (HSSREC) (IORG No. 0005376 and HSSREC IRB No. 00006464), and secured permission from the Central Province Provincial Education Officer (PEO), the district Education Board Secretary's office (DEBS), and the Headteachers of Schools X and Y.

4. Results

4.1 Participants Profile

Table 1.5 is participant profile. Understanding participant demographics is essential for interpreting study findings and assessing their generalizability. Age and gender composition influence how individuals experience and respond to interventions, especially in studies involving adolescent sexual and reproductive health. Profiling participants helps confirm group comparability, detect potential confounding variables, and contextualize results within the target population**.**

Table 2: Study Participants' age and Gender (N = 197, M =17.93, SD =1.35)

Age	Gender	Experimental X	Control Y	% Age range
12-15	Female	0	0	-
	Male	1	1	2 (2.8%)
15- 17	Female	8	11	41 (57%)
	Male	11	11	
18- 20	Female	3	8	25 (34.7%)
	Male	11	3	
20≤	Female	1	0	4 (5.5%
	Male	3	0	
Total		38	34	72

Source: Field data, 2023.

This age and gender distribution reflects the typical grade 10–12 learner profile in Zambian secondary schools and supports the relevance of the study to adolescents at a critical stage of sexual development.

4.2 Zambian languages understood and spoken by Participants

The experimental group comprised 12 female and 26 male pupils. The control group consisted of 19 female and 15 male pupils selected through simple random sampling. Figure 2.0 presents the number of pupils who understood and spoke each of the six commonly spoken languages in the study site. Because the facilitator was required to use or blend the six commonly spoken languages during sessions, it was necessary to establish which pupils understood and spoke each language, and how many, to ensure no participant was excluded from the native-language acronym-mediated lessons.

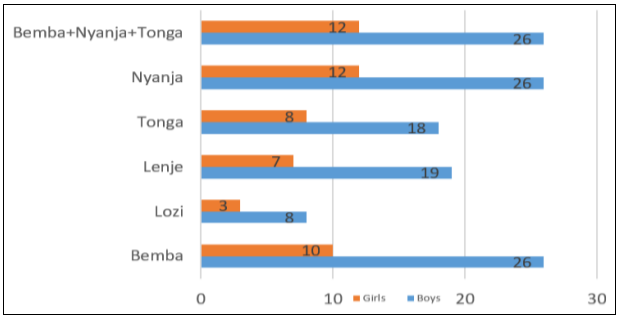

Fig 1: Number of Participants in the experimental group speaking the selected Zambian Language

4.3 Findings ANCOVA Conditions

Table 1.6

a. Homogeneity of Variance Assumption

Table 3: Levine's Test: Equality of Error Variances for Post-test

F	df1	df2	Sig.
.725	1	70	.397

This test examines whether the error variance of the dependent variable (Post Test Results) is equal across groups. The p-value (0.397) is more significant than the typical significance level (0.05). Overall, Table 1.5 show Levene's test indicated no violation of the homogeneity-of-variance assumption ($p > 0.05$). The effect of pre-attitude on post-Acceptance is the same for both groups.

b. Assumption of Linearity

Considering the slopes, they are similar even though the intercepts differ. A straight line implies a linear relationship between the control and experimental data. Figure 3 below confirms that the relationship between the covariate and outcome was linear, satisfying the linearity assumption.

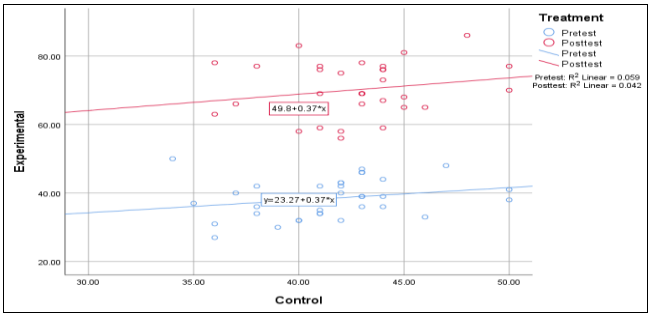

Fig 2: Assumption of lineality

The analysis met the linearity assumption because the scatter plot showed a linear pattern. A linear pattern means that the effects of some variables (transformed or untransformed) in the sd-PLWHIV-led ATP add up, leading to normally distributed, independent residuals. Overall, ANCOVA assumptions were met, with no significant

outliers, no multicollinearity, and independent observations confirmed.

c. homogeneity of regression slopes

The assumption was that the relationship between the covariate and outcome is the same across treatment groups. The analysis of homogeneity of regression slopes yielded F(1,68) = 0.52, p = 0.473. The F(1,68) = 0.52: F-statistic value for the interaction term (covariate*treatment) and *p* = 0.473. Since p > 0.05, we fail to reject the null hypothesis that slopes are homogeneous.

4.4.1 Quantitave Findings

Figure 3. Number of pupils who initiated questions, unsolicited comments, or discussions during each observed sexuality lesson, by instructional condition. Note: Statistical analyses were conducted using total dialogue acts per individual pupil summed across all lessons.

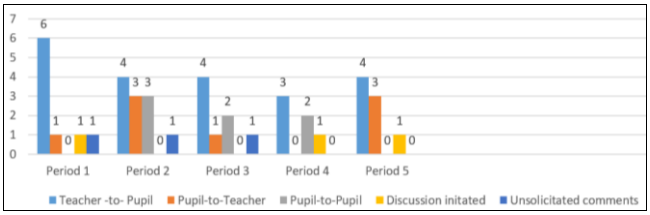

Fig 3: Total number of questions, unsolicited comments, and discussions initiated by pupils post-intervention for experimental and control groups

Bars represent count of unique participating pupils per session, not total dialogue acts. Individual-level totals were used for ANCOVA in Table 1.7.

4.4.2 Experimental Group

Figure 4. Frequency of questions, unsolicited comments, and discussions initiated by pupils in the experimental group across observed sexuality lessons. Note: Bars represent the number of unique participating pupils per session. Statistical analyses in Table 1.7 used total dialogue acts per individual pupil summed across all lessons. Consistent with procedures for the full sample, dialogue acts in the experimental group were tallied at the individual pupil level for analysis, but are displayed in Figure` 4 as the number of unique participating pupils per lesson to illustrate session-level engagement patterns.

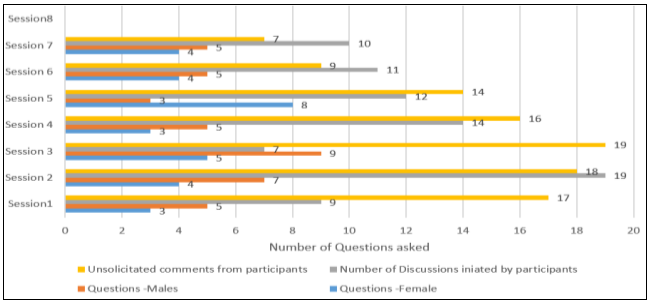

Fig 4: Number of questions, unsolicitated comments and discussions initiated by pupils in the experimental Group

4.4.3 ANCOVA Analysis

ANCOVA of sd-PLWHIV-led Acronym-Mediated Instruction Effects on Pupil-Centered Sexuality Dialogue

Dependent Variable: Post-test frequency of pupil-centered sexuality dialogue acts.

A one-way ANCOVA tested H₀. After controlling for pre-test dialogue frequency, F(1, 69) = 8.50, p = .005, partial η^2 = .11, there was a significant main effect of group, F(1, 69) = 145.78, p < .001, partial η^2 = .68. The null hypothesis was rejected. Adolescents exposed to acronym-mediated sd-PLWHIV lessons initiated significantly more sexuality dialogue acts post-intervention than those in conventional teacher-led lessons. The model accounted for 67.9% of variance in post-test dialogue frequency.

Hypothesis

H₀: *There is no statistically significant difference in post-test frequency of pupil-centered sexuality dialogue acts between adolescents exposed to acronym-mediated HIV/AIDS lived-experience storytelling and those exposed to conventional teacher-led instruction, after controlling for pre-test dialogue frequency.*

Dependent Variable: Post-test frequency of pupil-centered sexuality dialogue acts.

4.4.4 Results text:

A one-way ANCOVA tested whether instructional condition influenced post-test frequency of pupil-centered sexuality dialogue acts, controlling for pre-test frequency. The covariate was significant, F(1, 69) = 8.50, p = .005, partial η^2 = .11. After adjustment, the main effect of condition was significant and large, F(1, 69) = 145.78, p < .001, partial η^2 = .68. The null hypothesis was rejected.

Table 1.7: One-Way ANCOVA of Instructional Condition Effects on Post-Test Frequency of Pupil-Centered Sexuality Dialogue Acts

Source	Type III	df	Mean square	F	p	Partial Eta Sq
Corrected model	7896.359[a]	2	3948.179	72.978	.000	.679
Post-test frequency of pupil-centered sexuality dialogue acts"	459.620	1	459.620	8.496	.005	.110
Student Groups/sd-PLWHIV-led ATP	7886.584	1	7886.584	145.776	.000	.679
Error	3732.961	69	54.101			
Total	267361.000	72				
Corrected Total	11629.319	71				

R Squared = .679 (Adjusted R Squared = .670)

4.5 The Findings in the Control Group

Creswell (2014) recommends analyzing patterns between data sources. Data used for deriving themes included field notes attained from observing the lessons as recorded and then triangulated among observers, responses from open – ended questionaires, responses from interviews and focus group discussions.

4.5.1 Researchers' Side of the story (Observation Data)

Observations provided data about which parts the teacher choose to implement, how he actually implemented and which areas they omitted.

4.5.2 Theme 1: Teacher-based Barriers to Open Dialogue

Subtheme 1.1: Linguistic Avoidance: The researcher and the research assistants observed that the teacher struggled to use terminologies like puberty, sex, premarital sex, STIs, including HIV and AIDS. The teacher's inability to say key terms became a lesson in itself. Silence or understatements teach pupils that these words/realities are unspeakable. This is the mechanism of taboo transmission.

Subtheme 1.2: Pedagogy of Warning and Fear: The teacher's address on the subject matter was unidirectional,characterised by implicit warnings rather than direct, open discussion. It was obvious from our observation, which was confirmed by the teacher's self-report, that the teacher was uncomfortable. Teachers don't just teach content; they model attitudes. Hesitation signals shame and secrecy. In other words, beyond words, the style of delivery matters. Unidirectional plus implicit warnings yield fear-based, closed pedagogy. The attitude was confirmed by triangulation (from observation and self-report). The subtheme captures how affect such as shame, secrecy and others are modelled and become content.

4.5.3 Teacher's side of the story (self -report)

Q: What words or phrases do you like most or avoided when teaching sexuality, and what do you use instead?

Subtheme 1.3: Teacher Self-Censorship of Anatomical Terms

The teacher's response highlights that specific words are culturally "unspeakable. The finding emphasizes deviation from syllabus language and it is a fidelity problem. The teacher wrote, "*It is difficult for me to talk about vagina, penis, sexual intercourse to the class, words like that are not ease to use.".* These self-reported lexical avoidance of anatomical terms due to discomfort provides the causal mechanism to creation of a hidden curriculum.

Q: Were you able to teach the content as written in the syllabus. What did you do?

Subtheme 1.4 Identity Barriers: Age, Gender, and Marital Status. The teacher's self-report indicated that he felt unease to teach this topic, cultural norms and taboos applied to him and that he was almost in the same age group as the pupils. The teacher wrote,"*I don't think I taught as I should have taught, I had to leave out certain things that I was not confortable with. Iwill give them a homework to read and actually I think they know most of these things*. *The problem with our girls is that they will think that I am trying to get to them, especially since I am not married, and they look old. It is difficult." I have fewer problems with boys; we can discuss those things* (TCY).

Our observation corroborated with the teacher's self-report. We observed non-verbal cues indicating a lack of readiness to engage the learners. To him, the age difference with pupils restricted him from talking about sex to Grade 11. Our observation was that the teacher felt that he lacked moral authority to teach about puberty, sex, anti-premarital sexual behaviour, and even STIs. This is the root cause from the teacher's perspective. Cultural scripts about who can speak to whom about sex, plus fear of being misconstrued, create a professional paralysis. Non-verbal cues are the visible symptoms. Overall, the reslts obtained from classroom observations made on the teacher, teacher's self-reports and the interview results corroborated. The teacher's discomfort, identity, and delivery unintentionally communicate that sexuality is shameful, dangerous, or inappropriate for open discussion. This connection then helped the researcher to show which concerns or specific barriers prevented curriculum fidelity during the implementation process.

4.5.4 Pupils'side of the story

Q: When your teacher was teaching, what did you notice about how he talked?

Theme 2. Pupils' Construction of Sexuality as a Taboo Topic

Subtheme: 2.1 Reading the Teacher's Body: Signs of Danger: One pupil observed, *"I noticed the teacher was not coming out clearly in his explanation about puberty, premarital sex, multiple sex partners and anti-premarital sexual behaviour. I don't know whether it was shyness, not being ready, or maybe because he saw new people in the classroom* (including the researcher and assistants). *Anyway, I have come to believe that sex issues are not easy to talk about openly."* This suggests that teacher discomfort functioned as a pedagogical message in itself,legitimising silence around sexuality and undermining formal curriculum goals.

Q: If a teacher avoids using words how does that make you feel about asking questions?

Subtheme 2.2 Naming is equivalent to shaming: In line with our observation, the pupils noticed that the teacher was avoiding certain words in his explanation. The following quote is referenced: "*I saw my teacher just writing the word' sex on the board, but I couldn't say it. So we don't say it either. Those words are only for writing. We even named him 'those things', but we knew he finds it difficult to be free." (PCY-11 F)* When teachers skip parts or use other names for body parts, that observation, by pupils, becomes a hidden curriculum — pupils learn that these topics are shameful, awkward, or forbidden.

Q: How does the way your teacher teaches sexuality affect whether you talk to friends or adults about it later?

Subtheme 2.3 Learning the Rules of Silence: Because of the teacher's discomfort, as observed by the researchers and corroborated by pupils's self-reports, observed discomfort, resistance, and disengagement among pupils. When asked about how they found the lesson, one female pupil wrote, "*If you ask the teacher a question, he is not ready to answer. At times, teachers may answer, but they will show as though your question is coming because you are involved in sex. I have that experience of being embarrassed that way, so I stopped asking."* (PCY-7F). A related comment, "*The way he teaches it, you can see this is not something we should discuss openly*." (PCY-3F). The teacher's action may have sent a message to pupils that sexuality is not a classroom subject.

Subtheme 2.4 Attributing Motive: During FGD -3, the presenter said, "*When a teacher says,' Don't ask me, I don't know those things, and if I asked, he might have thought that I had a hidden reason. So what do you do? You keep the questions to yourself."* (FGD-3 secretary). This was a very serious pedagogical revelation; pupils misread the teacher's intent due to age/gender proximity. It further generated suppression of questions and other related discourses.

Q: When your teacher skips certain words or seems uncomfortable during sexuality topics, what do you think that means? What lesson do you learn about those body parts or behaviors when the teacher won't say their real names?

Theme 3: Pupils' Adaptation to Teacher-Led Silence on Sexuality

Subtheme 3.1.0 Strategic Disengagement as Behavioural Outcome. Pupils: Some pupils chose silence, while others relied on other sources of information to meet their information needs, avoid embarrassment for themselves and the teacher, and conform to the classroom atmosphere.

Strategic Silence: The perspective is referenced in the following quotes: "*It is better we just write notes than*

*discuss those things that make us feel ashamed; we will find out on our own." (*PCY- 11). The pupil's statement reveals strategic silence as pupils' protective response to teacher-led discomfort, privileging emotional safety over accurate information.

Parallel Information Seeking: From a related perspective, participant PCY-19 M. wrote, "*We learn a lot of issues on the internet or ask our friends and they explain isseus which our teacher doesn't want to talk to us; here it is better we just learn what may come in the exam, so we can pass the exam."* (PCY-19M). Teacher avoidance of explicit sexuality terminology creates an information vacuum that pupils fill through social media and peer networks, elevating the risk of misinformation.

Exam Instrumentalism: Pupils reframe the lesson as exam prep only, disconnecting content from their personal lives. The FGD -3 raised the need to prepare for examination at the expense of assertiveness skills for anti-premarital sexual behaviour. The joint and unanimous statement read, *"at the moment examinations are important, we will know those things later" (FGD-3).* The issue is similar to what was raised by PCY-19 M, who wrote "… *here it is better we just learn what may come in the exam, so we can pass the exam*." (PCY-19M). The classroom was thus redefined as an exam space rather than a life skills space.

Classroom Conformity: Pupils comply with the perceived "no discussion" norm to maintain group harmony. The perspective is implied in both: *"…just write notes*"(PCY-11) and "…*what may come in exam"*(PCY-19M) = don't disrupt atmosphere.

Pupils' strategic withdrawal from classroom dialogue on sexuality, replaced by private information-seeking and exam-focused learning to manage shame, protect the teacher, and meet academic demands. Disengagement emerged as a rational pupil strategy. Faced with teacher discomfort, pupils protected both parties by enforcing silence. This silence did not indicate a lack of interest. Instead, pupils outsourced learning to unmediated spaces. Disengagement, therefore, functioned simultaneously as face-saving, information-seeking, and academic compliance. Overall, the finding in the control show that curiosity to learn assertiveness for anti- premarital sex was dampened, the teacher encountered diminished participation and reduced opportunities for interactive learning, and learners were reduced to focusing on examination rather than behavioural change.

4.6 Findings in the Experimental Group

RQ 3 "In what ways do qualitative accounts of pupil dialogue explain or expand quantitative differences in engagement and communication self-efficacy between groups?"

Q: How did using acronyms like OSAYESA change the way you talked about premarital sex in class? What was it about the acronyms that made the message easier for you to understand and discuss?

Theme 4.6.0 Acronym-Driven Transformation of Sexuality Dialogue

The use of local-language acronyms and the self-disclosed person living with HIVas a facilitator (sd-PLWHIV) converted shame-based silence into open, skilled, pupil-owned dialogue.

4.6.1 Subtheme Acronym-Mediated Articulation: The message was accessible. local language-related acronyms made the message more accessible to learners. Acronyms gave neutral, pronounceable labels that bypassed embarrassment. A participant said*, "Osayesa means exactly that we should not engage in premarital sex as pupils* (P6-F). Another pupil wrote*, "The use of OSAYESA throughout our discussion made it easy to communicate.* Participant P10. Added, *"The use of OSAYESA, SANOSA, SA throughout our discussion made it easy to communicate."* (P10-F)

Q: How did hearing the lessons in your local language and from someone with lived experience affect you personally*?* Can you describe a moment when a phrase like "OSAYESA uza SASA" made you think differently about your choices?

4.6.2 Subtheme Cultural and Emotional Resonance. The local language embedded warnings, and the lived experience of the SD-PLWHIV added depth to the understanding.A participant wrote, "*At one time, she said OSAYESA, OSA-SASA sent a deep personal message to my life. In Nyanja, she was saying, "Do not engage in premarital sex, it will make you get rotten. I took the lesson as specifically directed at me. I got a fresh reason why I should desist from premarital sex. The words were well matched to the lessons we needed to learn (P10-F).* Another participant referenced the perspective as *"The story she told was real… it was touching, and her life has been disturbed (SASA)." (P18-F)* Yet another participant said*, "What was even more touching was that she was a pupil at this school, and the character she described of herself, we see it here, how I wish all of us could hear this.* (P31-F)

Q: What made you feel free to ask the facilitator questions during these sessions?

4.6.3 Subtheme. Dialogic & Skills-Based Pedagogy

More lessons of question and answer, debate, and clarification using acronyms. They moved from a theoretical exam-based approach to matters related to behavioural change. A participant wrote, *"It was easy to ask the facilitator a lot of questions… I liked it*" (P11-F). Another participant wrote, *"We discuss freely because the woman opened up freely and because we are talking about letters, not our bodies. So no one feels ashamed*."(P37-M)

Q: In what way did using codes like OSAYESA affect how you and the facilitator spoke to each other?

4.6.4 Subtheme Facilitator Role Reframing- *The sd-*PLWHIV presented as curriculum deliverers, not moral judges. *"I thanked her for coming out in the open." Acronyms gave PLWHIV and us to speak freely using those codes* (P4-M) This pupil comment reveals that acronyms functioned as a shared communicative shield, enabling both sd-PLWHIV facilitators and adolescents to breach taboo through coded speech and transform shame into open, destigmatized dialogue.

Q: How did using acronyms instead of direct words change your comfort level in class discussions?

4.6.5 Subtheme Question Activation & De-stigmatised Talk

Pupils initiate discussion because acronyms separate the person from the topic. We noted a comment, "*We could ask for clarification of all issues, and our new language made it easy"*.(P21-F) and another pupil said,"*We discussed many things that couldn't be expressed directly in English*." (P19-M). These pupil testimonies indicate that acronyms created linguistic depersonalization, dissolving the stigma barrier

between speaker and subject and enabling adolescents to initiate candid dialogue on sexuality topics that English directness had rendered unspeakable in the control.

Q: How did using OSAYESA with classmates change how you felt when discussing these topics?

4.6.6 Subtheme Shared Identity and Group Safety

Pupils appropriated OSAYESA as a collective linguistic resource, transforming a culturally taboo topic into a legitimized "school way" of speaking about sexual refusal**.** *I love OSAYESA because it has become 'our school's way' of talking…*"(P27-M) Another participant said,"*When I used OSAYESA, I was not feeling embarrassed…but I learned a lot of important things"* (P13-F). Thus, OSAYESA functioned as a communally sanctioned code that replaced embodied embarrassment with group-mediated safety, enabling pupils to discuss sexual refusal without triggering the identity-based stigma that silenced the control group.

Q: Can you give an example of how you or your friends have used SANOSA or OSAYESA outside class to warn each other?

4.6.7 Subtheme Cooperative Anti-Predator Signalling

Pupils repurposed acronyms as covert, socially embedded alarm codes, deploying them in public spaces like bus stops and markets to warn peers of sexual risk without attracting stigma or exposing the threat**.** The idea was reference several times in which one participant wrote, *"A friend quietly said to me, 'SANOSA'… I was reminded of the need to desist."(P10-F).* Similarly another participant wrote, "*I just heard 'SANOSA', how are you? … I got the message*" [P20-F]. The implication is that acronyms extended comprehensive sexual education beyond the classroom into adolescents' lived environments, transforming taught content into a practical, cooperative early-warning system that empowers pupils to interrupt risky situations through culturally safe, deniable communication.

Q: Have you taught OSAYESA to anyone outside your class? How did they react?

4.6.8 Subtheme Diffusion and Sustainability

Pupils transferred OSAYESA beyond the classroom, initiating peer-to-peer teaching that embedded the acronym into their out-of-school social networks without facilitator mediation.A participants said. *"I had to teach my friends at home our new language, 'OSAYESA' and they were excited."*A FGD-3 output read*, "we use OSAYESA with friends from different schools. They have heard about"(*FGD-3 Secretary) Pupils sentiments indicate that the acronym achieved autonomous diffusion, signaling pupil ownership and the emergence of a self-replicating protective discourse.

Q. Did anything about these lessons feel shameful or against your values? Explain.

4.6.9 Subtheme Medical and Ethical Accuracy Without Stigma

Pupils evaluated OSAYESA and SANOSA as pedagogically sound codes that retained ethicality and biomedical fidelity while eliminating the shame and moral condemnation typically attached to sexuality discourse. "I found the SANOSA, OSAYESA very relevant… six participants that the acronyms were medically correct and non-stigmatising." After I looked at what we learned at the OSAYESA scoreboard participant 26 noted, *"By participating in these lessons, I learned exactly what is taught about self-control, so I was helped* (P26-M) Participant 11 emphasised the alignment with religious teachings, stating, *"The things they said were what should be taught even at church; it can help young people like us,"*(P11-F) Another participant confirmed, "These lessons taught us how to behave appropriately in real-life situations. I did not see anything contrary to that" (P18-F). Pupils judged acronyms as correct and non-stigmatising. The implication is that lexical recoding can resolve the false tension between cultural values and comprehensive sexuality education, enabling schools to deliver medically precise, ethically aligned instruction that secures pupil, parent, and community legitimacy without triggering stigma or resistance.

Table 1.8 Control vs Experimental Mechanisms

Patterns of responses and therefore themes between researcher observation and teacher self-reports as well as researcher observation and participants interations in both the control and the experimental groups showed similarities. Table 1.8 presents a comparative summary of mechanisms observed in the control and experimental groups, mapping how researcher observations, teacher self-reports, and pupil interactions converged across five key domains. The table distills recurring patterns to show how teacher-led linguistic avoidance produced cascading barriers in the control group, while acronym-mediated facilitation restructured the same domains into enabling conditions in the experimental group.

Table 1.8: Comparative summary of Findings in the control and Experimental Group

Domain	Teacher- based barriers	Experimental Group: Acronym-Mediated Facilitators
Language	Linguistic Avoidance → words unsaid	Acronym-Mediated Articulation → words coded, safe
Pedagogy	Warning & fear, unidirectional	Dialogic & Skills-Based, two-way Q&A
Teacher/Facilitator role	Identity Barriers: age, gender, marital fear	Professional Role Reframing: curriculum + PLWHIV model
Pupil Behavior	Disengagement: silence, internet, exam focus	Deeply invested: questions, peer signalling, home diffusion
Outcome	Taboo reinforced, knowledge fragmented	shared identity, sustained community language

The parallel alignment between researcher observations and participant responses confirms internal validity: what teachers enacted through avoidance, pupils adapted to through disengagement and peer misinformation; conversely, what facilitators enabled through coded articulation, pupils reciprocated through investment, dialogue, and diffusion.

4.6.10 Summary to the Questions

RQ 1: What is the effect of acronym-mediated sd-PLWHIV instruction on pupils' knowledge of sexual risk, attitudes toward premarital sex, communication self-efficacy, and perceived classroom safety relative to the control group?

Compared with conventional teacher-led instruction, acronym-mediated lessons delivered through sd-PLWHIV lived-experience storytelling produced distinct effects across all four outcome domains.On knowledge of sexual risk, both

groups gained factual information from the syllabus. However, pupils in the experimental group retained and applied that knowledge differently. Because acronyms like OSAYESA and SANOSA removed embarrassment and framed biomedical content in local language, pupils could repeat, discuss, and use the information without stigma. Knowledge shifted from inert recall to functional dialogue that pupils carried into peer networks.Attitudes toward premarital sex also changed more markedly in the experimental group. While the control group received abstract warnings from teachers, experimental pupils heard authentic testimony from an sd-PLWHIV who was a former pupil at their school. That relatability made risk personal. They interpreted the acronym-mediated messages as non-judgmental and aligned with community values, describing them as "what should be taught even at church." This reduced defensive resistance and strengthened intent to delay sexual debut and refuse sexual pressure.The strongest effects were on communication self-efficacy. Experimental pupils reported significantly higher post-test scores because the acronyms acted as cognitive scaffolds and a shared, shame-free lexicon. Saying "OSAYESA" required less social risk than describing sexual situations directly, so pupils felt able to initiate questions, clarify doubts, and practice refusal skills. Self-efficacy moved from individual competence to group-mediated agency—speaking the code meant joining a protective community.Finally, perceived classroom safety was significantly higher in the experimental group. The sd-PLWHIV's open disclosure and the neutral acronyms co-constructed a discursive space where taboo could be breached without penalty. Pupils described the room as a place where "we could ask for clarification of all issues" because "we are talking about letters, not our bodies." In contrast, the control group experienced teacher-embodied avoidance and euphemisms that maintained silence and shame.In summary, acronym-mediated sd-PLWHIV instruction did not just increase scores. It restructured the conditions of learning: knowledge became usable, attitudes became internalized, self-efficacy became collective, and the classroom became safe. This reframed sexuality dialogue from teacher-controlled avoidance to pupil-owned engagement.

RQ 2: How do pupils experience and interpret acronym-mediated storytelling in terms of relatability, acceptability, linguistic access, and stigma reduction during sexuality education?

Pupils experienced acronym-mediated storytelling as a relatable and culturally grounded way to talk about sexuality. Because the sd-PLWHIV facilitator shared her lived experience in local language and was a former pupil at the school, the lessons felt personal and real. Participants said phrases like "OSAYESA uza SASA" were "specifically directed at me" and carried weight that textbook terms could not. This cultural-emotional resonance made the message credible and immediately relevant to their lives. They also found the approach acceptable. Pupils judged the acronym-mediated content as medically correct, ethically sound, and free of moral condemnation, noting it aligned with what "should be taught even at church." The facilitator was not seen as a judge but as someone who "came out in the open" to help them, which increased trust and legitimacy. Linguistic access was central to their experience. Acronyms like OSAYESA and SANOSA gave pupils neutral, pronounceable labels that let them discuss premarital sex and HIV risk without embarrassment. They explained that "talking about letters, not our bodies" made it easy to ask questions, seek clarification, and initiate dialogue. The codes lowered the barrier to participation and turned passive listening into active engagement.Most important, the storytelling reduced stigma. Acronyms worked as a shared communicative shield that separated the speaker from the taboo topic, so pupils could "ask for clarification of all issues" without feeling exposed. Using OSAYESA became "our school's way" of speaking, which replaced individual shame with group-mediated safety. Pupils even carried the codes outside class, using "SANOSA" as a quiet warning to friends in markets and bus stops. In sum, pupils interpreted acronym-mediated storytelling as relatable, acceptable, accessible, and stigma-attenuating. By recoding sexuality into a communally sanctioned language, the approach shifted classroom dialogue from teacher-controlled avoidance to pupil-owned, psychologically safe conversation that pupils then diffused into their peer networks.

RQ3: In what ways do qualitative accounts of pupil dialogue explain or expand quantitative differences in engagement and communication self-efficacy between groups?

Adolescents exposed to acronym-mediated lessons delivered through sd-PLWHIV lived-experience storytelling reported significantly higher perceived classroom psychological safety, demonstrated significantly greater post-test communication self-efficacy, and exhibited significantly higher pupil engagement and question-asking frequency compared with the control group.Explanation:These three quantitative outcomes are mechanistically linked. Acronym-mediated instruction created a psychologically safe classroom environment by replacing euphemistic, avoidance-based teacher talk with neutral, pronounceable local-language codes (OSAYESA, SANOSA) and a non-judgmental sd-PLWHIV facilitator. This linguistic depersonalization reduced stigma activation and embarrassment, which elevated perceived classroom safety. In turn, heightened safety lowered the psychosocial cost of participation, enabling pupils to exercise agency. The acronyms functioned as cognitive scaffolds and a communally sanctioned lexicon, which increased pupils' belief in their capacity to articulate sexual refusal and negotiate risk—reflected in higher communication self-efficacy scores. Increased self-efficacy then manifested behaviorally as greater pupil engagement and question-asking frequency. Rather than passive receipt of information, pupils initiated dialogue, sought clarification, and appropriated the acronyms as their own discourse. Thus, the experimental effect represents a cascade: safety → self-efficacy → engagement. The acronym-mediated model did not merely increase "talk time" but restructured the conditions of talk, reframing sexuality discourse from teacher-controlled avoidance to pupil-owned, skills-based interaction.

5. Discussion

The findings from the control group corroborate an extensive body of literature documenting that teacher-related barriers compromise the effective delivery of school-based sexuality education (Mkambo, 2012; Awusabo-Asare

et al., 2017; Acharya *et al*., 2018; Mukonka *et al*., 2023; Chavula *et al*., 2022; Yangailo & Mkandawire, 2023; Zulu *et al*., 2019). Consistent with this scholarship, the present data demonstrate that teacher discomfort functions as a covert pedagogical message,legitimising silence and thereby undermining explicit curriculum goals (Mukonka *et al*., 2023; Zulu *et al*., 2019; Muzata *et al*., 2023; McCroskey & Richmond, 2013). Notably, pupils were highly attuned to these affective cues: as one participant observed, the teacher's hesitation reinforced the belief that sexuality "was a sensitive issue that does not need to be discussed openly." Thus, hesitation operated not merely as a personal deficit but as an enacted curriculum that taught shame and secrecy. The attribution of these barriers was multifactorial. Teachers explicitly linked their avoidance to prevailing cultural taboos and religious beliefs, a finding that converges with Mukoma *et al*. (2009) and replicates patterns reported by Chirwa-Kambole *et al*. (2020), Chavula *et al*. (2022), and Mangwaya & Ndlovu (2013). More surprisingly, the data revealed that teachers' self-perceived personal characteristics—specifically gender, marital status, and age proximity to learners—generated apprehension about misinterpretation or community sanction. This identity-based constraint extends previousconceptualisations of teacher discomfort by highlighting how social positionality, rather than content knowledge alone, can inhibit dialogue. Collectively, these dynamics confirm that communicating anti-premarital sexual behaviour and broader sexuality messages to adolescents remains a complex communicative task (Mukanga *et al*., 2024; Muzata, 2023; Menda *et al*., 2022; Mwape & Munsaka, 2020; Zulu *et al*., 2019). In the present study, teacher discomfort and the associated reliance on unidirectional, warning-based pedagogy deprived pupils of accurate information and assertiveness skills required to refuse premarital sexual advances. This outcome aligns with prior evidence that learners frequently receive incomplete or unclear information regarding their sexuality (Muzata, 2023; Chitra *et al*., 2020). Consequently, pupilscharacterised the instructional approach as passive and non-participatory, with disengagement emerging as a rational, protective response to the classroom climate. The logic of this withdrawal is captured in the assertion, "It is better we just write notes than discuss those things that make us feel ashamed" [PCY-11], suggesting that silence served as a face-saving strategy for both the learners and the teacher. This mechanism is consistent with scholarship linking teacher linguistic avoidance and fear-based pedagogy to reduced pupil participation (Adams *et al*., 2015; Wang *et al*., 2020; Mukanga *et al*., 2024). The present data advance this understanding by specifying the interpretive process: teacher discomfort is read by pupils as a social cue that the topic itself is shameful, therebylegitimising withdrawal from dialogue. The pedagogical consequences of this withdrawal were twofold. First, pupils reported that the classroom felt "detached from reality," corroborating Auteri (2017), prompting them to outsource information-seeking to alternative, unmediated sources, particularly social media. Second, pupils strategically redefined the lesson's purpose as only examination preparation: "here it is better we just learn what may come in the exam so that we can pass the exam" [PCY-19 M]. This instrumentalist orientation, coupled with reliance on the internet for sexual health information, risks perpetuating knowledge gaps with documented public health consequences, including early pregnancy, unsafe abortion, and increased STI risk (UNESCO, 2018). Notably, the present control-group data did not substantiate previously reported teacher rationales for avoidance, specifically fear of conflict with parents regarding content on puberty, sex, and STIs (Sato *et al*., 2023; Emenike *et al*., 2023). This divergence suggests that, at least in this context, proximal identity concerns and internalised taboos may be more salient barriers than anticipated external sanctions.

In marked contrast to the control group, pupils exposed to the acronym-based, SD-PLWHIV-led ATP demonstrated significantly higher acceptance of sexuality discussions at post-test. The experimental group term was significant, $F(1, 69) =$ [insert F-value], $p < .001$, with Partial $\eta^2 = .679$. Following Cohen's (1988) benchmarks for social science research, $\eta^2 > .14$ constitutes a large effect. Thus, after controlling for pupils' pre-test attitudes, assignment to the acronym-using PLWHIV-led group accounted for approximately 67.9% of the variance in post-test acceptance. This indicates that the intervention effect was not only statistically reliable but also practically substantial. This large effect is explained by three interrelated shifts observed in the qualitative data: linguistic depersonalisation, pedagogical reframing, and shared identity formation. Whereas control teachers exhibited linguistic avoidance—manifested as an inability to articulate sexual terms, reliance on euphemisms, and content omission—the experimental condition utilised locally derived acronyms that depersonalised the topic and Scaffolded facilitator speech. Acronyms such as OSAYESA, SANOSA, SASA, and SA generated strong shared meaning (Check, 1985) between the SD-PLWHIV facilitator and learners, effectively granting the facilitator "professional permission" to address content deemed sensitive under conventional methods. The mechanism appears threefold. First, acronym-mediated articulation provided psychological safety in naming terms, thereby reducing embarrassment for both the speaker and the listener. As one pupil reported, "Now we discuss because we are talking about letters, not our bodies. So no one feels ashamed." Second, the high level of sexual comfort of the SD-PLWHIV (Greenan, 2018), combined with acronym use, relaxed interactions, and facilitated navigation of cultural taboos, is a finding consistent with expert positions on culturally anchored pedagogy (Epoge, 2012). Third, the semantic grounding of acronyms in Zambian languages—OSAYESA ("Don't Say Yes to Sexual Advances," from Nyanga "OSA yesa," meaning "Don't try it"), SANOSA ("Say No to Sexual Advances"), SA ("Sexual Advances," homophonous with Bemba "chasing away"), and SASA ("getting rotten" in Bemba/Tonga)—rendered messages culturally resonant, relatable, and memorable (Grant, 2016; Norrick, 2011). These linguistic tools reconfigured pedagogy from a unidirectional warning to a dialogic, skills-based interaction. Pupils reported increased question-asking and clarification-seeking: "It was easy to ask the facilitator a lot of questions… I liked it," indicating that acronyms separated the person from the topic and lowered the threshold for participation. The facilitator's role as a lived-experience expert further reinforced this dialogic shift; the SD-PLWHIV was positioned as a curriculum deliverer rather than a moral judge, thereby mitigating the identity barriers observed in the control. The effects extended beyond cognitive engagement to behavioural and social domains. Pupils described using the acronyms as

"cooperative anti-predator signalling" in extra-scholastic settings such as buses and markets—e.g., "A friend quietly said to me, 'SANOSA'… I was reminded of the need to desist". Participants also reported teaching the "new language" to peers at home, who received it with excitement. This diffusion, coupled with sustained use beyond school boundaries, provides preliminary evidence of intervention sustainability (Scheirer, 2013) and contextual fit (Glasgow *et al*., 2023). The uptake suggests that the practice can self-perpetuate without continuous external support, as proverbs and acronyms embed health messages in culturally intelligible, memorable forms (Grant, 2016; Norrick, 2011; Epoge, 2012).

Critically, pupils appraised the health content encoded in the acronyms as medically accurate and non-stigmatising, and the shared lexicon fostered a collective identity: "I love OSAYESA because it has become 'our school's way' of talking about avoiding premarital sex." This group ownership reduced individual embarrassment—"When I used OSAYESA, I was not feeling embarrassed as I would have been if I was using the textbook language"—thereby reversing the control-group dynamic in which formal terminology and silence imposed psychological pressure and suppressed comprehension. Taken together, the comparative evidence indicates that locally anchored acronyms, when delivered by a confident PLWHIV facilitator, disrupted the cycle of silence observed in the control. Whereas control-group pupils learned via teacher hesitation that sexuality was unspeakable and consequently disengaged toward exam instrumentalism and unmediated internet sources, experimental-group pupils re-engaged through a depersonalised, culturally congruent code that was portable, shareable, and protective. This contrast clarifies why acronym-based assertiveness training lessons produced large effects on assertiveness: they simultaneously addressed the linguistic, affective, pedagogical, and identity barriers that maintained the taboo in the control condition. The findings thus underscore that effective sexuality education requires not only accurate content but also communicative technologies that grant both teachers and learners social and psychological warrant to speak.

5.2 Strengths and Limitations

This study makes a novel contribution by exposing the utility of locally derived acronyms as a pedagogical technology for navigating sensitive topics in sexuality education. The intervention yielded consistently positive outcomes: pupils in the experimental group demonstrated significantly higher assertiveness and engagement scores compared to controls, with a large effect size (Partial η^2 = .679). Participation and uptake were high, evidenced by spontaneous pupil-to-pupil use of acronyms such as OSAYESA, SANOSA, and SASA within and beyond school boundaries. This suggests the approach has ecological validity for the Zambian classroom context, where cultural taboos and teacher discomfort have historically constrained open dialogue. Given that similar linguistic taboos, age-based authority structures, and resource-constrained teacher training characterise many sub-Saharan African and other postcolonial education systems, the acronym-based ATP offers a scalable, low-cost solution that is potentially transferable to comparable settings. An additional strength lies in the study's methodological triangulation: classroom observations, pupil focus groups, and pre- and post-quantitative measures were integrated to capture both behavioural outcomes and interpretive mechanisms, thereby strengthening internal validity.

Nevertheless, several limitations must be acknowledged. First, the study relied substantially on self-report measures and focus group discussions to assess attitudinal and behavioural change. Despite efforts to ensure confidentiality, social desirability and self-report bias may have inflated positive responses, particularly given the sensitive nature of premarital sexuality in Zambia's school context (Creswell, 2014). Participant responses can control the data in terms of honesty, recollection, or the desire to produce a response that will be pleasing to the researcher (Creswell, 2014). Second, the sample comprised one experimental group (n = 38) and one control group (n = 34) drawn from two secondary school in Kabwe District, Zambia. While adequate for detecting large effects, the modest sample size and single-site design restrict statistical power for subgroup analyses and limit generalizability to other public, or rural schools in Zambia. Third, the intervention duration was relatively short (Creswell, 2014), and follow-up data were not collected beyond the immediate post-test. Consequently, the long-term sustainability of acronym use and its impact on actual sexual behaviour remain untested. Fourth, the study design did not isolate the independent effects of acronyms from the influence of PLWHIV co-facilitation. Thus, it is not possible to determine whether linguistic depersonalisation alone, or its combination with facilitator lived experience and high comfort with sexuality, produced the observed changes. Fifth, although pupil diffusion of acronyms to home and community settings was reported, these accounts were pupil-reported and not independently verified, raising the possibility of overstatement. Finally, the researcher's role as designer and evaluator of the acronym toolkit introduces potential experimenter expectancy effects, despite the use of standardised protocols. Despite these limitations, the consistency of findings across quantitative and qualitative strands, together with the observed community uptake, provides preliminary but compelling evidence that culturally anchored acronyms can disrupt entrenched silence in sexuality education. Future research should employ larger, multi-site cluster-randomised designs, include behavioural follow-up at 6–12 months, and disaggregate the effects of linguistic tools from facilitator characteristics to strengthen causal inference and assess scalability.

6. Conclusion

This sub-study established that acronym-mediated lessons delivered through sd-PLWHIV lived-experience storytelling significantly restructured sexuality dialogue among in-school adolescents in Kabwe. Relative to conventional teacher-led instruction, the intervention produced higher levels of perceived classroom psychological safety, communication self-efficacy, and pupil-initiated engagement. Acronyms functioned as culturally congruent, linguistically neutral codes that bypassed teacher-embodied avoidance and stigma, enabling pupils to ask questions, clarify risk, and rehearse refusal skills without embarrassment. Pupils interpreted the approach as relatable due to the facilitator's authentic biography and local-language delivery; as acceptable because content was judged medically accurate, ethically aligned, and non-judgmental; and as accessible because acronyms lowered the discursive

threshold for participation. The codes operated as a communicative shield that depersonalized taboo, shifted self-efficacy from individual to group-mediated agency, and allowed dialogue to transfer from classroom to peer networks as covert anti-predator signals. While biomedical knowledge gains were comparable across groups, experimental pupils demonstrated functional application of knowledge, internalized attitudes toward delaying premarital sex, and autonomous diffusion of protective discourse. Thus, acronym-mediated storytelling reframed sexuality education from teacher-controlled avoidance to pupil-owned, psychologically safe engagement, enhancing curricular fidelity, information uptake, and behavioral intent in a high-stigma setting.

6.1 Recommendations and Implications

We recommend three actions. First, the Ministry of Education should pilot acronym-based assertiveness training modules within the Grade 10–12 Biology and CSE syllabi to give teachers a standardized, culturally safe script for sexuality topics. Second, pre-service and in-service teacher education should add modules on linguistic depersonalisation and co-facilitation with PLWHIV to reduce identity-based barriers and increase teacher comfort. Third, low-cost visual aids and pupil handbooks using local-language acronyms like OSAYESA, SANOSA, SASA, and SA should be developed and distributed to ensure sustainability and peer-led diffusion.Theoretically, the study extends communication accommodation theory and stigma management frameworks by showing that lexical substitution through culturally resonant acronyms reframes taboo health content from “unspeakable” to “speakable,” shifting classroom power dynamics and enhancing pupil agency. For practice, acronyms serve as a “psychological license” for both teachers and pupils, indicating that sensitive-topic pedagogy needs communicative technologies alongside accurate content.

6.2 Future Research

Future research should disaggregate the intervention using factorial designs to isolate the effects of acronyms alone, the PLWHIV facilitation alone, and combined ATP, clarifying active mechanisms. Additional case studies should be conducted to observe longitudinal outcomes, probably at 6- and 12-month follow-ups, measuring retention of acronym use, behavioural outcomes (e.g., reported refusal of sexual advances), and unintended consequences. In the context of transferability, it may be interesting to test the cultural adaptation of the acronym principle in other taboo-laden contexts. Further, development and validation of an “Acronym-Mediated Dialogue Scale” to quantitatively assess psychological safety, depersonalisation, and shared meaning in sensitive-topic classrooms is another worthwhile direction. Finally, this work aims to impact adolescent communities. In that regard, it would be interesting to track the diffusion of acronyms from school to home/community and assess whether peer signalling reduces premarital sex risk exposure.

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