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Averting, Fending off and Deflecting Learning Gaps before Entrenchment: Promising Student Support Strategies used by Teachers in Selected Zimbabwean Schools

Chrispen Chiome* 

College of Education; University of South Africa
Preller Street, Muckleneuk, Pretoria, South Africa

Abstract. This research examined promising transformative student support strategies employed by teachers in thirty-six schools that succeeded in fending off, averting, and deflecting learning gaps before they became entrenched. They helped struggling students to stay on track thereby accelerating learning. The research was a mixed-methods multiple-case study that targeted schools with mentors who mentor trainee teachers. These schools succeeded in closing the learning gaps after Covid 19. Thirty-six teachers one from each school completed an open-ended questionnaire. Eleven of these were interviewed. The research participants were purposively selected. The study unearthed that to avert, fend off, and deflate learning gaps, promising practices employed included assessing students to determine the learning gaps, encouraging learners to talk about their concerns and struggles, building deeper relations with learners, implementing evidence-based learning programs, targeting the needs of each learner, building relationships, providing learners with opportunities to be co-constructors of knowledge, exposing learners to ambiguity and complexity in a supportive environment, using mistakes as excellent vehicles for improvement, and modernising the teaching and learning environment through scaling up technology-based activities. The research recommends transformative solutions that include thorough assessment, building connections, accessing knowledge, skills, motivation, and a supportive environment as a starting point in averting, fending off, and deflecting learning gaps before entrenchment.

Keywords: learning gaps; accelerate learning; solidify pupil understanding; learning loss; struggling students; teachers

* Corresponding author: Chrispen Chiome, chrischiwome@gmail.com

1. Introduction

Learning gaps are not a new phenomenon because they have always been common in education. However, according to Maldonado & De Witte (2020), the new normal brought about by Covid 19 has been especially difficult for students because of the transition to online learning. This has been a lot tougher for many students particularly those from disadvantaged backgrounds. This has led to an increase in learning gaps. Thus, this study questions the accountability of the school systems in improving the education of the most vulnerable students. It is a naked secret that every learner experiences different learning hardships and needs (Dorn, 2022; Drew, 2023; Maldonado & De Witte, 2020). Such hardships can last a lifetime if they are not addressed. This prompted this study. This is because if learning gaps are allowed to entrench because they have been left unaddressed, lifetime damage may result (Dorn, 2022). The learners will lose confidence in the learning process. This will affect the way they progress through their education (Drew, 2023). By then, repairing learning gaps can become a nightmare (Maldonado & De Witte, 2020).

According to Agasisti (2018), learning gaps are seen as the disparity, the difference, the variance, or the gap/discrepancy between what a student has gained competencies in, or what the learner learned or gained an understanding of and what he or she was expected to gain an understanding in, learn, or become competent in, at a particular point in his/her education. Of these learning gaps, some can be classified as minor while others are highly significant and are caused by major learning losses or academic setbacks (Chiran, 2023). In schools and other educational institutions, it is the minor learning gaps that are relatively easy to remedy. Some of these minor learning gaps include a student who has missed just a single lesson due to illness. This research was concerned with the significant and complicated situations that may lead to major learning losses or academic setbacks. The study by Wang, Motevalli, and Lin (2024) highlights the individual empowerment that may be needed to address these significant learning gaps. The empowerment is facilitated by transformative leadership. This empowerment recognizes and values each educator's unique contributions. It also offers valuable insights that can help teachers to fend off and deflect learning gaps.

Demetriou (2020) lamented the gaps created between secondary and tertiary education. According to Demetriou (2020), through the existence of learning gaps, learners are handicapped when faced with new learning demands as they transition from one level to the other. This mostly affects learners that are moving from one level of education to the other such as pre-school to primary, primary to secondary, and secondary to tertiary levels (Demetriou, 2020). This study did not consider these levels but concentrated on learning gaps that flourish in a class as students move from one concept to the other (Drew, 2023). Thus, the main interest is in core competencies and core standards that the learners are expected to understand, grasp, master, and become proficient in (Dorn, 2020). Learning gaps impact the student's capacity to learn more advanced skills that depend on prior knowledge (Dorn, 2020).

Devi (2022) attached the concept of learning gaps to the concept of learning loss by arguing that students are adapting to contemporary ways of learning. Some of the new ways of learning mentioned include switching between virtual and hybrid learning. According to Devi (2022), this is a hunting ground for learning gaps because learners experience untold disruptions to their learning. Some of the disruptions mentioned include technology glitches experienced by both teachers and learners, schedule changes brought about by load shedding, and teacher replacement owing to high teacher mobility. Thus, Devi (2022) argues that these disruptions engineered enormous changes that affected learners leading to learning loss. This led to numerous learners experiencing learning gaps coupled with learning losses (Devi, 2022).

Chiran (2023) appears to be concerned with the devastating effects of learning gaps because these were seen as affecting quality educational provision. Chiran's main concern is that better learning and more schooling are the only way for learners experiencing learning gaps. This is because better learning is not possible in the face of learning gaps. The causes for these learning gaps are many in schools in Africa. According to Drew (2023), there are well-documented huge disparities and system dysfunctions and inefficiencies in many schools, especially in Africa. Under such conditions, learning gaps thrive. Chiran (2023) appears to agree with these sentiments and points out that many schools, especially in sub-Saharan Africa, suffer from low-quality teaching and learning. They also suffer from inequalities and exclusion whose impact on vulnerable children and girls is highly disproportionate (Chiran, 2023).

According to Devi (2022), many obstacles to learning can fuel the escalation of learning gaps in schools. Some of these include motivation, learning challenges, emotional factors, learning environment, learning styles, learning experiences, and others (Devi, 2022). Regarding obstacles to learning, Devi (2022) further opines that when learners are grouped by gender, race, or socioeconomic status, and then some comparisons are made regarding academic attainment, persistent gaps, and disparities can be observed that are detrimental to equity and equality in educational provision. On the other hand, Dee cited in Devi (2022) also pointed at issues like disruptive behaviour, inappropriate behaviour, experiences of frustration, and others as some of the issues that greatly fuel learning discrepancies. Teachers even end up labelling the students who are in this category as inattentive and not completing their homework when asked to, and other harmful labels (Kober, 2015 & Smith, 2019).

According to Maldonado and De Witte (2020), some of the students, by their background circumstances, may experience learning gaps that can lead them to disengage in the learning process. For this reason, learning gaps may be caused by this challenged learner missing classes frequently. In the research undertaken by Mink and La Prad (2023), some of the reasons that accelerate learning loss include family circumstances. They also pointed at chronic illness, mental health challenges, or learning disabilities as some of the challenges that may lead to some learners missing classes. That miss on its own is a great disadvantage and a key source of learning gaps in some students. Thus, this research has established that

urgent action is required to address learning gaps and learning loss (Devi, 2022). Such action is beneficial to society for ensuring smooth and continued educational pathways for all learners.

According to Sumida and Kawata (2021), the learning gap between urban and rural areas is a persistent problem in many sub-Saharan African countries. They further argue that the urban-rural learning gap is attributed to the fact that student characteristics and school resources are different in urban and rural areas. This has been an important study that shed light on learning gaps in countries like Zimbabwe. However, the research did not go further to study the promising strategies used by teachers to avert, prevent, and deflect learning gaps before entrenchment.

Some promising strategies can be used to suffocate learning gaps before entrenchment. However, according to UNICEF (2021), there is a need first for African governments to place a greater emphasis on equity in their policy planning and budget considerations. Sumida and Kawata (2021) point out that knowing the sources of learning gaps is important in all efforts directed at fending off the effects of learning gaps. They argue that when efforts are made without knowing the proper sources, education systems may end up widening the gap or, even worse, creating a new disparity (Sumida and Kawata, 2021).

In Zimbabwe, according to Chitanana (2022), learning gaps are exacerbated by many intersectoral barriers that include household poverty, remoteness, attrition, poor infrastructure, and socio-cultural norms, among others. Chitanana (2022) also pointed out that the disruptions emanating from COVID-19 have caused learning gaps to flourish. Learners from poor backgrounds have been hit harder and are now at higher risk of dropping out. This is also confirmed by Teach for Zimbabwe (2024) who points out that over 67% of Zimbabwe's learners in schools do not have access to quality, holistic, education that will ensure they can reach their full potential. What is not addressed by many of these are the strategies that can be employed to avert, fend off, and deflect these learning gaps before entrenchment. This makes this study indispensable.

2. Statement of the problem

Learning loss was experienced in the schools in this study because, for up to two years, learning was disrupted. This exacerbated learning gaps thereby limiting students' capacity and capability to learn more advanced skills. This is because these advanced skills depended on prior knowledge. The main cause was the height of the coronavirus pandemic that closed all these schools for not less than two years. Learning gaps worsen the situation by exacerbating pre-existing inequalities such as access to highly qualified and experienced teachers, school funding, books, technologies, and school facilities among others. These disparities in access to educational resources between different social groups have the potential to have long-lasting implications. Interrupted lessons and remote learning challenges exacerbated the situation leaving some learners at the mercy of disengaging learning gaps. Hence, this study. Thus, this appears to be a problem that has not been answered satisfactorily by any of the existing studies.

This research seeks to share strategies used by experienced teachers that will help learners bypass their areas of weakness by deflecting learning gaps. This will also help learners perform at the level at which they are capable, show less anxiety, demonstrate more resilience, and make meaningful connections between the real world and what they learn in class.

Research question

The research question that directed this study is:

- What do teachers employ as promising student support strategies to avert, fend off, and deflect learning gaps before they are entrenched?

3. Methodology

The quantitative data used in conjunction with the qualitative data provided the researcher with a better understanding of the research problem (Cresswell, & Cresswell, 2018). Through this “mixing” the research obtained more detailed data regarding the problem under research (Cresswell & Cresswell, 2018). Mixed methods methodology was preferred in this research because it makes the most of the strengths of each data type (Cresswell, & Cresswell, 2018). Mixed methods methodology was also used because of the methodology’s capacity to neutralise the weaknesses of either the qualitative method or the quantitative method. In this research, combining qualitative and quantitative methods helped in expanding the evidence thereby improving the credibility of the findings. Engagement of the learners in the learning process is also a key principle of pragmatism (Amankwaa, 2016). This is supported by Brown (2012) who points out that learners engage in problem-solving, experiential learning, critical thinking, and critical reflection among others. This is a process that when done well will minimise the learning gaps experienced by learners in this study. This is because, through experiential learning, learners learn by doing and not by memorisation. This on its own engages learners in the learning process.

Research design

The research design for this study was the Explanatory Sequential Design (Cresswell, 2022). This is a two-phase design. In this case, quantitative data was collected and then analysed first, in the first phase. In the second phase, qualitative data that formed the backbone of this study was then collected and analysed based on the quantitative results (Cresswell & Cresswell, 2018). In this study, the qualitative data was used to explain the quantitative data. In this research, combining qualitative and quantitative methods helped in expanding the evidence thereby improving the credibility of the findings.

Data collection techniques

Schools were randomly selected while participants were purposively sampled. Thirty-six teachers one from each school completed a questionnaire with both open-ended and closed-ended questions. Eleven of these were interviewed. The techniques employed in this study supplemented each other (Amankwaa, 2016). This data supplementation enhanced and boosted the validity and dependability of the data that was collected (Cresswell, 2022). The instruments used had scores that were both valid and reliable. The researcher made sure that the accuracy and

consistency of the survey/questionnaire were guaranteed. Information was collected from the source through systematic gathering, recording, and preserving. The researcher consistently questioned methods and findings to check for alternative interpretations that could emerge during data collection. This was all done to ensure the validity and reliability of the results.

Data analysis

In analysing the data, since this was mixed methods research, quantitative data was analysed using statistical analysis while qualitative data was analysed using qualitative methods. Content analysis was employed. This process included identifying patterns and themes within the qualitative data. The qualitative data was organised in a way that ensured the non-numeric information could easily capture themes and patterns (Amankwaa, 2016). These patterns and themes that emerged from the study were then used to answer research questions. Data exploration was undertaken. Exploring the data enabled the researcher to understand better the data that was available. The last step was data sorting and data reduction to manageable levels. Then the data was coded to identify relevant concepts and themes that were used to answer the research questions.

Research flow chart

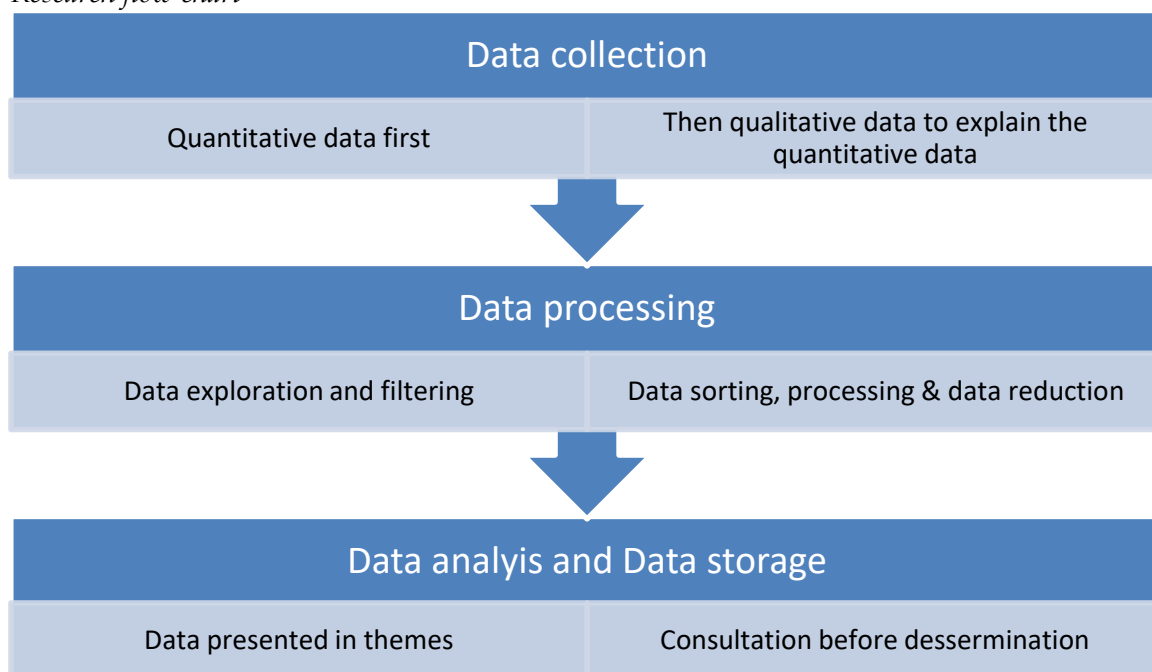


Figure 1: The Research flow chart

Data validation/trustworthiness

During data collection, data analysis, and data presentation, trustworthiness was upheld. The trustworthiness of this study was mainly to do with the Four Dimensions Criteria (FDC), (Cresswell & Cresswell, 2018). Credibility was ensured through member-checking, peer debriefing, and reflective journaling. The transferability was upheld through a rich, detailed description of the context, location, and people studied (Amankwaa, 2016). To ensure the dependability of the data collected, I kept an audit trail of process logs. These researchers note all

activities that happen during the study. In this study, I ensured that consistency was sustained, and the study could be repeated so that confirmability is upheld.

4. Theoretical framework

The theoretical framework for this study is Goffman's *self-discrepancy theory* (Higgins cited in Ahadzadeh et al., 2017). According to this theory, all learners have beliefs about and expectations for their actual and potential selves that do not always match up with what they experience (Higgins cited in Ahadzadeh et al., 2017). Three different 'selves' in each learner were cited as the "selves" that make up the learner's self-concept. They are ought, ideal, and the actual selves. According to Higgins cited in Ahadzadeh et al., (2017), the attributes that you or someone else believes you possess are known as the actual self. The attributes that you or someone else *would like you* to possess are known as the ideal self. The attributes you or someone else believes you *should* possess are known as the ought self.

According to Larchenko, & Barynikova (2021), the self-concept greatly influences teaching and learning. For example, in a technological environment, key areas that are affected by the self-discrepancy theory include disruptive technologies, machine learning, artificial intelligence, Internet of things (IoT), virtual reality, mobile applications, Google Classroom, brain pop, Socrative student, and others that improve communication and collaboration in line with the theory. Thus, Cheung et al., (2021) pointed out that mobile learning, personalised learning, flexible learning, adaptive learning, and blended learning as some of the platforms that can be greatly influenced by the self-discrepancy theory. They facilitate collaborations and partnerships in line with the theory.

5. Results and Discussion

This research examined the promising student support strategies employed by teachers to fend off and deflect learning gaps before entrenchment. The main strategies employed by teachers are shown in Table 1.

Table 1. The promising strategies used by teachers

The promising strategies used by teachers to avert and deflect learning gaps	F	%
Assessing the students to determine the learning gaps	36	100
Encouraging students to talk about their concerns and struggles	12	33
Scale-up on technology-based activities	8	22
Targeted needs of each learner	11	31
Implementing evidence-based learning programs	10	28
Building deeper relations with students,	10	28
Collaborative learning	8	22
Providing learners with opportunities to be co-constructors of knowledge.	12	33
Exposing learners to ambiguity and complexity in a supportive environment.	11	31
Use mistakes as excellent vehicles for improvement.	13	36

Table one shows the promising student support strategies employed by teachers to avert, fend off, and deflect learning gaps before entrenchment. N=36 while F stands for Frequency.

Learners in this study experienced various forms of learning gaps as observed by the teachers in the study. These gaps affect their learning. The teachers in this study provided promising solutions that could benefit both teachers and learners. They suggested that teachers must focus on transformative strategies that will support student learning so that they can catch up with others and close those gaps. The promising student support strategies employed by teachers to fend off and deflect learning gaps before entrenchment are discussed below.

Assessing the students to determine the learning gaps

All the teachers 36 (100%) opined that they assessed their students so that they easily determine the learning gaps that they are experiencing. One participant pointed out that:

It is through assessment that I know what students know or do not know. Assessment also helps me to determine the level and seriousness of the learning gaps that are affecting each student.

Chiran (2023) views assessment as key in identifying learning gaps and then adds what they call “assessment for learning.” This kind of assessment is known as formative assessment in other literature. According to Chiran (2023), the purpose of formative assessment is to provide students with feedback on how they are performing in any of the subjects that are being assessed. The main purpose of formative assessment is to help learners to improve their performance. It is an assessment for learning that can make summative assessment results better by closing the identified learning gaps. Hence, learning gaps can be averted, fended off, and deflected through assessment for learning (Chiran, 2023).

According to World Vision (2023), learning gaps that develop learning disengagement for learners can be prevented by exposing learners to such situations that include early feedback and the incorporation of opportunities for assistance through reflective practices especially for those learners that show signs of disengagement caused by learning gaps (World Vision, 2023). Monteiro & Mata (2021), in support of this view, points out that through assessment of learning, learners will be able to take charge of their learning and engage with the learning process. Assessment will encourage reflection on learning. This also provides learners with the opportunity to share their accomplishments. They can also use that opportunity to share their struggles as well. One of the participants in this research shared that:

I administer diagnostic tests regularly in my class. These were very helpful because they allowed the learners to think deeply about their learning experiences. Learners could also learn from their identified shortcomings.

Another one added:

Assessment of learning was an interesting exercise because, at times, even moments of confusion were highlighted by the learners. Over the years, I

have learned that through assessment practices, I encourage the learners to focus on their strengths and weaknesses. I also use the feedback on assessment as the starting point. Learners usually respond positively to the feedback.

Fisher and Fray (2012) believe that feedback that is provided promptly after assessment is a powerful strategy for improving student learning outcomes. They added that teachers should always focus on quality feedback after every assessment. They must also focus on knowing their students' abilities, challenges, and shortcomings. These are best exposed through assessment. Thus, teachers should provide their students with timely and quality feedback about their performance. Fisher and Fray (2012) believe that feedback may be individualised, depending on the varying needs of the students challenged by learning gaps.

Encouraging students to talk about their concerns and struggles

Encouraging students to talk about their concerns and struggles as a process of the transformative student support strategies employed by teachers to fend off and deflect learning gaps before entrenchment was mentioned by 12 (33%) of the participants in this research. Encouraging students to talk suppresses isolation. The issue of students suffering in isolation has the effect of disempowering and thereby compounding the challenges that learners face (Engel et al., 2021). One of the participants mentioned that:

I encouraged my students to freely talk about their concerns because I believe that a "problem shared is half solved." I also believe that isolation breeds entrenchment of the learning gaps.

Smith (2019), in the context of special needs students, is of the view that teachers should be able to encourage their disengaged learners to talk about their concerns. They must freely share their struggles so that others can help them with some form of solution. Smith (2021) is of the view that a learner who acknowledges the learning gap in the class can be helped even by other students. He even gave some advice to teachers that they need to remind their learners who are affected by learning gaps that they are not alone in the struggle because learning gaps can affect anyone. He opined that being a student in a special class is normal because it is not their fault. Thus, through the help of peers, it becomes easier for teachers to identify the extent of the learning gap that is disengaging the learner. According to Smith (2021), encouraging students to talk about their concerns and struggles helps them overcome their learning challenges. Their colleagues will help them to overcome obstacles as they get help.

Targeted needs of each learner

The issue of targeted needs for each learner as a way of averting, fending off, and deflecting learning gaps before entrenchment was mentioned by 11 (31%) of the participants in this research. One of the participants reasoned that:

To avert and fend off learning gaps before they become stubborn, teachers must know that the one-size-fits-all approach does not work. Learners are unique individuals. They have personal challenges. There is a need to target each learner as an individual.

According to Lawson and Lawson (2020), the biggest challenge when it comes to addressing learning gaps is that students themselves are not always aware of why they are struggling. This means it is important to diagnose the learning gaps and then apply specific targeted learner needs. This means that identifying learning gaps should be a priority for every teacher. In this regard, Mink and La Prad, (2023) are of the view that the first step any teacher can take to create targeted needs for each learner is to create an individualised plan for the learner in question.

One of the research participants shed light on how learning gaps are formed by pointing out that:

I took note that in my class, the biggest challenge that fuels learning gaps is that many of my students were allowed to “move on” with other students. Those learners who were behind were disadvantaged by this class policy of following their class’s pace, regardless of whether they had mastered the required concepts or not.

The finding that learning gaps are formed because learners are often forced to move on following the class pace appears to resonate with the views of targeted remedial exercises. Thus, learners who are forced to “move on” with their class’s pace need to be given targeted remedial, exercises (Doe, 2023). In this regard, teachers and other educators have the unique responsibility of going back and revisiting previous topics and subjects that appeared to trouble the targeted learner. They then need to work one-on-one with the targeted student. For best results, World Vision (2023) claims that this exercise must be undertaken at the student’s pace. Their main reason is that as the learner gains clarity into previously difficult concepts, the gaps in their learning will gradually begin to fade.

Andras & Alvero (2023), are of the view that through employing targeted needs for each learner, disengaged learners will experience responsiveness that may entail timely and effective personalised interventions. Smith (2021) appears to prescribe additional instruction or resources as part of the targeted needs regime. Then further argues that such disengaged learners can be engaged by the provision of a more targeted allocation of resources. Thus, targeted differentiated instructions will bridge the learning gaps and then strengthen learner resilience. Employing targeted needs instructions will also help in nurturing student well-being, strengthening the home-school links, and bridging the learning gaps in learners (Smith, 2021).

Implementing evidence-based learning programs

Implementing evidence-based learning programs was mentioned by 10 (28%) of the participants in this research. Evidence-based learning programs were clarified by one of the participants who said:

I am a research-informed teacher. I always want to use evidence to direct my specialised teaching program. These evidence-based programs are forms of capacity building. They are forms of evaluation. There are some kinds or forms of assessment components that can bridge learning gaps.

The other one concurred and added that:

In my class, I implement evidence-based learning programs. I use these programs to help learners navigate the uneven learning terrain that is affected by learning gaps.

According to Smith (2021), the more volatile path that disengaged learners face can be smothered by the implementation of evidence-based learning strategies like those used for special needs education students. This issue is further supported by Hodkinson (2018) who insists that evidence-based education (EBE) is a new thinking in education cycles that believes that education practices should be anchored on scientific evidence. The reasoning is that contemporary education should differ from personal judgments and traditions. Evidence-based education should be equated to evidence-based learning, and evidence-based teaching (Hodkinson, 2018).

Dhawan, (2020) and Hodkinson, (2018) believe that evidence-based teaching involves the use of evidence. This evidence is then used to establish where learners are in their learning. The knowledge of where learners are in their learning helps to bridge the learning gaps because the teacher can use this knowledge to make an informed decision regarding appropriate teaching strategies and interventions. The teacher can also use the new knowledge that is scientific in the process of monitoring learner progress and even assess teaching effectiveness.

Building deeper relations with learners

One of the major findings regarding averting, fending off, and deflecting learning gaps before entrenchment is that of building long-lasting deeper relations with learners. Building deeper relationships was mentioned by 10 (28%) of the participants in this research. The issue of building deeper relations with students was clarified by one of the participants who pointed out that:

I have observed from the students that I taught that it is imperative that students feel safe in the classroom and even in the school. They also need to ensure that their teacher supports them in their work in school. You will see that when safety and support are in place, the students will learn better, the relationships will improve, and it will be easier to engage them.

According to OSSE (2023), teacher-student relationships should be close. This can be done through developing strong relationships with the learners. This means that the teachers should be equipped with the skills, knowledge, competencies, and self-awareness so that they can systematically build long-lasting strong relationships with the learners. Teacher-learner relationship is also supported by Rose et al. (2019) who pointed out that teachers should demonstrate that they care for their learners. They also pointed to the issue of respecting students' views in the classroom. To them, showing a caring attitude, considering, and respecting students' views, and building mutual trust are cornerstones that can be used to build strong relationships with learners (Rose, Levenson, & Smith, 2019).

OSSE (2023) also talks about getting to know the social, economic, and religious backgrounds of the students as one way in which strong relationships can be built.

One way of doing this is to have time to spend one-on-one relationships with the learners especially those that are showing signs of disengagement. This is also important for the learners that may feel lost. According to OSSE (2023), many processes can disengage students. One of these is that they may feel that their voices are not being heard or that their concerns are being ignored. Thus, it is the conversational and pleasant one-on-one relationship that can be used as a springboard for building strong relationships with the affected learners (Rose et al., (2019). The students will be engaged once they know that they are receiving the teacher's full attention. Thus, increasing student engagement through building deeper relations and fostering strong connections will ensure that the learners are almost always less likely to avert, fend off, and deflect learning gaps before entrenchment.

Collaborative learning

Collaborative learning as a form of averting, fending off, and deflecting learning gaps before entrenchment was mentioned by 8 (22%) of the participants in this study. They saw collaborative learning as an important activity that could help bridge learning gaps. One participant said:

One successful way that I used to form connections in my class was to employ collaborative learning activities. I also helped by introducing icebreakers. These collaborative learning activities were popular with the students. One good result from this is that forming collaborative connections helped greatly to engage the disengaged.

Collaborative learning as a way of averting, fending off, and deflecting learning gaps before entrenchment was also mentioned by Adam (2021) who pointed out that one important way of bridging learning gaps is to build a sense of community. He also stressed that it is important to build a sense of belonging. Ainoutdinova (2018) also supported the forming connection view by arguing that building relationships is a sure way of nurturing a sense of community because disengaged learners can use that opportunity to help suppress feelings of isolation. In some instances, this can help to prevent the feelings of isolation that are experienced by disengaged students. According to Adam (2021), disengaged learners are highly likely to be successful in their studies when they feel connected to their teacher, connected to their colleagues, connected to their school, and connected to their community.

Kafallinou et al., (2020) and Smith (2019), speaking in the context of special needs children, appeared to applaud the issue of building relationships. Both were of the view that teachers should provide opportunities for students to interact. Smith's (2019) main idea in that argument was that collaborative activities and icebreakers allow students with special needs to get to know their colleagues. He pointed out that building relationships allows special needs students to understand each other through sharing values perspectives and experiences, among others (Smith, 2019).

OSSE (2023) opines that teachers should consistently prioritize building strong connections with their learners. The student's ability to stay engaged and learn with their peers is assured once they are connected in class. Learning is a

connected process. It doesn't happen without relationships because relationships matter much more (Rose, Levenson, & Smith, 2019). Thus, to ensure students are engaged it is paramount to target deeper relationship-building. These strong relationships have a strong tie-to what we want learners to attain in class. There must be a clear connection between how teachers and students interact with each other, the establishment of a safe learning space, and the need to make students comfortable in class (OSSE, 2023).

Exposing learners to ambiguity and complexity in a supportive environment

The participants in this research looked at the essences, practices, and processes of educational change and growth in the teaching of children disengaged by learning gaps. In this regard, they interrogated performance in complex, ambiguous, and diverse teaching and learning environments and agreed that learners should be exposed to ambiguity and complexity in a supportive environment.

Exposing learners to ambiguity and complexity in a supportive environment as a way of averting, fending off, and deflecting learning gaps before entrenchment, was mentioned by 11 (31%) of the participants in this research. This point was clarified well by one of the participants who pointed out that:

To me, the most important thing to prevent learning gaps from being entrenched is to try and foster the complexities and ambiguities that are prevalent in many learning environments. In such a case, schools can nurture lasting impressions in their learners who are free from the learning gaps challenges. Complexity and ambiguity in class are important in fostering informed decision-making and enhancing problem-solving. In class, they are needed when learners are supported because ambiguities can help learners tackle problems with creative potential.

The idea of ambiguity and complexity in a learning environment was articulated well by Riedler & Yunus (2016) when they pointed out that children will learn to embrace ambiguity and complexity if their teachers are proactive in that regard. They offer some suggestions that can expose learners to ambiguity and complexity in a supportive environment. They pointed to the issue of inviting learners to create, engaging in problem-solving, and improving learners' capacity to tackle intricate scenarios. Learners can also be given opportunities to revisit and reinvent rules that affect their learning. Riedler & Yunus (2016) further point out the need for problem-solving strategies, reflecting on experiences and learning processes individually and in groups. To Riedler & Yunus (2016), it is important, in the process of exposing learners to ambiguity and complexity in a supportive environment to facilitate practicing theory-building and risk-taking, especially with new ideas that can help them bridge learning gaps.

Providing learners with opportunities to be co-constructors of knowledge

Providing learners with opportunities to be co-constructors of knowledge, as a way of averting, fending off, and deflecting learning gaps before entrenchment, was mentioned by 12 (33%) of the participants in this research. The participants shared what they thought were the examples of co-construction of knowledge that

they employed in their teaching. Some of the areas given by five of the research participants are given below:

My class was involved in activities such as exploring, observing, interacting, reflecting, and others. My children worked hard to construct new knowledge using their prior experiences as building blocks. My students used their experiences as a platform to gain a new understanding of themselves and the world. I worked with the class to construct new knowledge through sharing new experiences encountered daily. I gave my children a platform in which they made decisions that were heavily influenced by their prior experiences.

Providing learners with opportunities to be co-constructors of knowledge, is an issue that was supported by Engel et al. (2021). They argued that knowledge co-construction is good for engaging learners because it is a platform for fostering a collaborative process. They went further to say that through knowledge construction, learners are fully engaged because they use the process to learn from one another. This process of collaborative learning can bridge the learning gaps as learners use it to further expand their knowledge. The pooling of ideas, knowledge, and experience strengthens their knowledge base. Engel et al. (2021) argue that the process of constructing new knowledge happens by building on learners' prior knowledge and experience. This appears to support the views expressed by the research participants in this study. In the co-construction of knowledge, learner involvement is assured. Their learning is built on what they and their peers have prior experience in. The knowledge that they already know is shared through collaboration when it is brought to the classroom.

Kostelnik et al. (2019) appear to support the view that learners should be provided with opportunities to be co-constructors of knowledge. In their view, the construction of knowledge is important for children experiencing learning gaps. This is because the co-construction of knowledge helps learners to build on their prior experiences. It also helps these learners to gain a new understanding of the issues that affect them daily. Kostelnik et al. (2019) also add that the process of constructing knowledge through the learners' daily experiences will strengthen pupil-pupil interaction, pupil-pupil partnerships, decision-making, and communication with peers and teachers among other benefits. This will allow learners to make connections. The new knowledge can also bridge the learning gaps as learners acquire a new level of understanding in their learning. This is attained through asking questions, sharing experiences, and through reasoning, among others.

According to Kaffenberger, (2021), student engagement can be assured in the process of co-construction of knowledge because learners learn by connecting new knowledge with knowledge and concepts that they already know. This connection between what they know and the new information that they come across will lead learners to the construction of new meanings. In a different theme in this report, the issue of creating a supportive learning environment was lauded as a way of addressing learning gaps. Kaffenberger (2021) appears to agree by pointing out that students connect knowledge most effectively in active social environments. The social environments should be conducive so that the learners can easily negotiate understanding through interaction and varied approaches.

This view was also supported by Kober (2015) who argued that teachers hold the key in the process of setting collaborative teams that work in unison to construct new knowledge.

Use mistakes as excellent vehicles for improvement

Using mistakes as excellent vehicles for learning, as a way of averting, fending off, and deflecting learning gaps before entrenchment was mentioned by 13 (36%) of the participants in this study. Some of the ideas put forward by some of the participants include:

I use failure as a stepping stone for more focused learning because, to me, avoiding failure limits success.

To me, failure is like crashing a bicycle when learning to ride.

I take failure as a springboard to success because I take every mistake as a new experience. To me, every mistake is a lesson because. misjudgments are a natural course of life.

Pokhrel & Chhetri, (2021), appear to agree that failure can be a springboard to success when they argue that teachers should capitalise on the mistakes that their learners make. He went on to advise that the errors that are made by learners can be used as "springboards for inquiry". In such circumstances, Pokhrel & Chhetri, (2021) opine that schools, particularly teachers should normalize mistakes as one of the strategies that they can use to cultivate a positive and lasting change in the learners. According to DeBrincat, (2015), mistakes are a normal part of life. This means that because they are a normal part of life, they should be embraced by all teachers. They should be taken as normal. They should be used as a vehicle for improvement. They can also be used as an excellent vehicle for learning.

A participant in this research study made efforts to elaborate on the issue of failure as a source of learning gaps by arguing that:

We all know that learners make mistakes as part of their learning process.

However, the mistakes that they make will then create extreme anxiety and stress in the learners. Worse still, as teachers, we add fuel to the fire by focusing on perfection. I could see that some of my learners could freeze when they thought acting could lead to a mistake.

DeBrincat (2015) and Pokhrel & Chhetri (2021), agreed that after students have made some mistakes that the teacher frowns on, they will make efforts to intentionally avoid failure altogether. They also pointed out that some students may be horrified by the thought of making a mistake. Thus, the fear of making mistakes is extremely common among school-aged learners. Under such circumstances, teachers should not add assault to injury by pressuring students to be perfectionists. They need to use those mistakes as a springboard for success. They need to capitalise on mistakes to create positive change in the learners (DeBrincat, 2015). To help accelerate the bridging of learning gaps and the engagement of disengaged learners, teachers have a responsibility to explain to the learners that everyone makes mistakes. Pokhrel & Chhetri, (2021) believe that the only way to become better is to make a mistake and learn from your faults. To do this, teachers should be able to use mistakes as excellent vehicles for improvement. Borrowing from the sentiments of the participants in this research there is a need to make failure a steppingstone to success in the fight against

learning gaps. There is a need for mindset change so that teachers see failure as an instrument of progress (Kafallinou et al., 2020). This means that every mistake should be taken as an experience, a lesson, and a natural course of life. In that regard, in the learning gaps battle for bridging them, the fighters should know that avoiding failure limits success.

Modernising the teaching and learning environment through scaling up technology-based activities

The participants in this study mentioned the issue of modernising teaching and learning through scaling up technology-based activities. This was mentioned by 8 (22%) of the participants in this research. The scaling-up of technology-based activities was also supported by Devi, (2022). They argued that one of the key elements of building an online community is the use of a discussion board that can offer online learners the opportunity to articulate their knowledge and ideas. Technology-based activities like discussion boards will allow learners who are grappling with learning gaps to hear a variety of viewpoints and perspectives that will galvanise the urge to learn new ideas. In that case, they will be engaged in the learning process. A participant in this study argued that:

The teaching and learning environment can be remodelled so that it offers learners a personalized learning environment. This can be done through tools and technologies that attract learners. Using technology, I managed to improve on problem-based learning and collaborative inquiry.

Another participant had this to say:

Scaling up on technology-based activities provides learners with much-needed instant access to digital tools and internet resources that will allow the learners to explore a vast amount of information and resources not readily available in traditional textbooks.

According to Rose et al. (2019), game-based learning platforms are a form of modernising the teaching and learning environment. This is because gamification of learning provides differentiated instructions that engage learners. Mink & La Prad (2023) talk of technology-based experiential learning that can be used to expose learners to immersive learning, ambiguity, and complexity in a supportive learning environment. This will provide opportunities for students to experience engaging, differentiated, standards-aligned skill practice that culminates in a positive and lasting change where learning gaps can be eliminated.

According to Downes, (2023), connectivism as a theory for the digital age appears to fit well in this argument that scaling up on technology-based activities is one way of modernising the teaching and learning environment through scaling up technology-based activities. The use of technology promotes learner autonomy. Thanh & Phan (2024) are of the view that learner autonomy is a desirable educational goal in many countries. It is also a desirable educational goal in the country under study because of its dominance as a desirable topic in teaching and learning. This study which sought to foster learner autonomy in various contexts, can be a useful hint to schools in this study and beyond. This is because it helps teachers interpret and foster their students' autonomy, especially concerning the new competence-based curriculum that has been introduced in Zimbabwe.

6. Conclusion

This research concludes that averting, fending off, and deflecting learning gaps before entrenchment is a multifaceted endeavour that requires collective efforts. Understanding the concept of learning gaps, acknowledging its vast challenges, and implementing strategies that avert, fend off, and deflect them before entrenchment is a way of serving delicate minds. This is also a way of working towards creating inclusive and equitable educational environments.

Major findings

Notable strategies used by teachers in this study include assessing the students to determine the learning gaps, encouraging students to talk about their concerns and struggles, scaling up technology-based activities, meeting targeted needs of learners, evidence-based learning programs, building deeper relations, exposing learners to ambiguities and complexities, among others.

Implications of the findings

The benefits of averting, fending off, and deflecting learning gaps before entrenchment extend beyond the classroom. It is a process of shaping the future of learners. It is a process of promoting social justice not just as a goal but as a reality for all learners. Teachers need to shine a light on the most vulnerable learners by addressing learning gaps. Teaching and learning strategies that are inclusive have been long overdue in the schools under study. The uniqueness of individual learning gaps calls for teachers to be adaptable and flexible in their teaching methods. Under the circumstances, the learning gaps must be addressed through transformative learning processes. If they are left unaddressed, they will persist in hindering the learners' progress through scaffolding because they increase the chances for the student to struggle academically. The main reason is that learning is based on educational building blocks. This is a process whereby the new knowledge "builds" upon previous concepts that have been taught. If these concepts were not understood in the first place, then future learning will be affected.

Recommendations

This research recommends that to stop the devastating effects of learning gaps, schools should be prepared to discard their stale practices that brought the same learning gaps in the first place. They should be ready to move forward, evolve, make headway, and adapt in line with changing global trends to strengthen learner resilience. Schools must work up from their slumber and realise that learning gaps inflict lifetime damage on the learners. This means that averting, fending off, and deflecting learning gaps before entrenchment is no longer an option but a fundamental requirement. Transformation, driven by connectivism, should spearhead, foster, and nurture environments in which every individual has the competencies required to reach their full potential. There is a need to rethink the way students are being taught in the face of new technologies, pedagogies, and tools for teaching and learning. Schools, teachers, and communities should work synergistically together to recover and bridge the learning losses that are being exacerbated by inequalities. This collaboration should make education an arena where all learners can thrive, blossom, flourish,

and grow irrespective of their circumstances. Because every learner has different learning needs, teachers should employ targeted instructions that are tailor-made to close the learning gaps one step at a time. They should be adaptable and flexible in their teaching methods. They should deliver focused teaching through collaborative planning, and the production of purposeful lessons while guiding learners in acquiring, understanding, and retaining information. Teachers should provide regular feedback whose effect is to nurture self-motivation, desire to continue learning, and inclination to improve performance. There is a need to increase student engagement through hands-on activities, autonomous learning tasks, game-based learning, collaborative problem-solving, and asking open-ended questions, among others. Creating a supportive classroom atmosphere that is safe, and inclusive, promotes diversity, applies fair and appropriate disciplinary practices, and promotes positive student outcomes should be prioritised.

Challenges

While the recommendations appear plausible, they can be difficult to implement owing to challenges like insufficient funding, existing inequalities, differing learning abilities, attrition, competencies, and others. In such a case, there is a need for professional development opportunities, cooperative learning, use of online resources, fostering an inclusive school culture, active involvement of parents, bridging the gap between the school and the community, and others.

Future research

Future research can be undertaken to find out the types of foundational skills or foundational content that can create learning problems for learners in the future. Others can still address the disproportionate effect of learning gaps on the most vulnerable learners and the consequences for students' learning loss.

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Appendix 1 (start on a fresh page)

Please add your survey questions / questionnaire / research instrument here.
 It is very important to do so.
 Refer to the appendix 1 somewhere in your main text.