



Saber-toothed the University In-service Curriculum for Zimbabwean Primary Schools: The Contestations

Albert Mufanechiya^{*a} & Bekithemba Dube^a

* Corresponding author

Email: mufanechiya66@gmail.com

a. Department of Educational Foundations, Faculty of Education, University of Free State, Bloemfontein, South Africa.

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ABSTRACT

In this study, the authors argue that 'saber-toothed' the university in-service curriculum is a critical success factor in building an impact educational programme for Zimbabwean primary schools. By saber-toothed the in-service curriculum, the authors propose that the education curriculum at university should continue to develop in order to address and serve the purposes and needs of the time. It explains how some unexamined habits and practices can result in resisting the much-needed curriculum reforms. The new global and national conditions demand a paradigm shift to chat new in-service curriculum discourses that develop the Zimbabwean education system. The study uses an interpretivist qualitative case study of one Zimbabwean university, purposively sampled five experienced and senior lecturers teaching the in-service programme and ten in-service student teachers. Data were collected through semi-structured interviews in respect of lecturers, focus group discussions within-service students and document review of module outlines. The main finding is that the in-service curriculum has remained stagnant in the changing times and failed in its highest end to develop a reflective and responsive in-service product that can 'saber-tooth' the knowledge and skills to solve challenges and realities of their time and contexts. The study recommends that universities re-vision the largely existing in-service academic curricula and practices to adopt a practically-oriented, knowledge generation training and skills-based model that equips teachers with the proper knowledge and skills to change educational fortunes in their unique local school contexts.

KEYWORDS

Saber-tooth; in-service; curriculum; primary schools; teaching and learning; practical skills.

INTRODUCTION AND BACKGROUND

The study contends that in-service curriculum should turn around the challenging, demanding and changing educational contexts with teachers exhibiting courage, confidence and resolve, principles, values and practices that utilise local indigenous resources to solve problems (Achl, 2021). Having considered the knowledge and skills of the Paleolithic period that were successfully put to work, the emergent changing educational revolution can no longer be defined using the same. For clarification's sake, the in-service curriculum should mirror the changing circumstances, which require new knowledge, new attitudes and values and hands-on skills, as old techniques may not yield the required success (Modal & Das, 2021). The significance of the in-service curriculum to teachers is to extend and expand knowledge and skills to strengthen practice by applying content in context (Mizell, 2010). This was the thrust of the saber-tooth curriculum attributed to Harold Benjamin (1938), who sketched a parable of how to reform a stagnant curriculum (Biffle, 2016) based on authentic and functional activities that solve emergent needs. The in-service curriculum, by its nature, should drive education and national development in this technological and industrial epoch.

Saber-tooth curriculum

The historical background of the saber-tooth curriculum started with Harold Benjamin in 1939 under the pseudonym Abner J. Peddiwell (Kozel, 2018). The famed saber-tooth curriculum emerged from an engaging fable of New-Fist-Hammer – Maker, who was a doer and knew how to do things his community needed most (Benjamin, 1939) during the Ice Age. New-Fist was always dissatisfied with the accustomed ways of his tribe and improvised ways in which life might be made better for himself, his family and his group.

Accordingly, the stimulus that put him into education was when he watched his children play with bones, sticks and pebbles for fun and no defined purpose (Benjamin, 1939). On the other hand, he watched adults struggle to work for food, shelter, security and enrichment. Juxtaposing the two, his immediate challenge was how to engage children to be productive beyond the immediate pleasure. The context and survival demands were food (fish), shelter and clothing (skins from horses) and security (scaring tigers). His first subject curriculum was grabbing fish with bare hands; the second was clubbing woolly horses and finally driving away saber-tooth tigers with fire. New-Fist gave the children the opportunity to practice these three subjects. For the children, it was fun to engage in these purposeful activities. The new educational system was deemed a success, and many accepted it as the heart of real education.

With time, the conditions changed, and catching fish using bare hands was no longer possible; the woolly horses could not survive the new conditions and were replaced by speedy antelopes, which could not be clubbed easily (Kozel, 2018). Further, the saber-tooth tigers became extinct, and there were no longer tigers to scare (Benjamin, 1939). To this end, New-Fist saw the need to develop new survival methods. He developed net-making to catch the fish, snare setting to catch the antelopes and pit-digging as indispensable ways to modern existence and survival. This became the new curriculum. Therefore, in order to subsist, new ways had to

be devised, new activities developed and new questions asked (Law, 2022; Ornstein, 1982). The changing circumstances required new ideals, knowledge, and techniques as old techniques were now futile (Biffle, 2016). In this seminal work, Benjamin (1939) maintains that it is supposed that all would have gone well for ever with this good education system if that community's conditions had remained the same forever. Curriculum is a contested field; generally, any change is not accepted with open hands. Some conservative members of society argued that this good education must not be changed. They argued that true education is timeless, something that endures through changing conditions like a solid rock standing squarely and firmly in the middle of a raging torrent (Kozel, 2018). Benjamin's response and message was simple: The curriculum was no longer relevant. Like the saber-tooth curriculum, Law (2022) opines that any curriculum becomes less effective after a period of adoption.

The import of this parable is that no curriculum remains relevant forever. Incontestably, a curriculum should reflect and speak to the needs of the changing times. Saber-tooth curriculum, thus, is learning how to survive in real-life shared social contexts.

In-service professional teacher development in Zimbabwean universities

Literature shows that due to the digital revolution and new global education trends, teachers need constant professional capacity-building in-service programmes that improve and update their knowledge, skills and competencies for them to provide an education to the learners to thrive in the 21st century (Altun, 2011; Gouedard et al. 2020; Osamwonyi, 2016). In-service teacher education identifies with the notion that, for teachers, no initial course of teacher education can be sufficient to prepare a teacher for a career of more than 30 years (Altun, 2011). Examining the provision of in-service in diverse contexts, it calls for the need to explore various orientations of this professional teacher development system.

In China, Zhang and Hao (2016) report that provincial teacher training institutions, Municipal teacher training schools, radio and television teacher training colleges, higher normal schools and universities are responsible for delivering in-service teacher training at all levels. To qualify for in-service the teachers should have acquired a teaching qualification. According to the authors, there are numerous modes of in-service teacher education in China, which include the following:

- Professional teacher education institution training mode- refers to universities, education colleges or educational institutions.
- School-based training mode- teachers participate in the in-service training as long as they are employed at that school. It is based on teacher needs.
- Remote training mode- involves the use of modern-day technology such as research websites, satellite television broadcasting, etc.
- Teacher lecture group training mode- is a government-organised in-service teacher training of experts who are able to give lectures in order to train primary and secondary school teachers.

The Germany experience with in-service teacher education is that each state's Ministry of Education and Cultural Affairs is in charge as the highest supervisory authority and employs the bulk of the teachers (Zhang & Hao, 2016). There are some similarities with the Chinese model, where there is the professional teacher education training mode, which is state-run at the central level, and the school-based mode, which schools carry out for their teaching staff in cooperation with various in-service education institutions and the remote training mode where digital devices are used. Universities also provide courses for in-service teacher development.

In the United Kingdom, Altun (2011) observes that in-service for serving teachers is organised and conducted mainly by public bodies, the central government and the teacher training agency, local education authorities (LEAs), school governing bodies, head teachers and individual teachers concerned. Generally, the in-service is workplace-based where teaching and learning focuses on the needs, interests and problems directly related to teacher roles and responsibilities. In Turkey, the in-service is centrally planned by the Ministry of National Education and universities play a limited role (Altun, 2011).

The provision of in-service in Sub-Saharan Africa shares similarities with its counterparts worldwide. In their multi-country review, Junaid and Maka (2015) of eight African countries, namely; Senegal, Central African Republic, Ghana, Madagascar, Nigeria, Mozambique, Zambia and Niger, observed that in-service took place within formal institutional structures such as colleges of education, universities, staff development centres and other accredited facilities and the modes of transaction included face to face, distance learning and school-based.

In Zimbabwe, schools have the liberty to run their own school-specific staff development programmes, however this study is premised on in-service professional development by universities. Thus, in Zimbabwe, universities have become important knowledge and skills development hubs where practising teachers can be nurtured and further improved to be well-equipped to meet new demands in the changing times (Chimbi & Jita, 2023; Chimbunde et al., 2023; Delanty, 2011; Konyana & Motalenyane, 2022; Makuvire et al., 2023; Shigwedha et al., 2017). After completing the initial teacher training course at colleges of education and graduating with a Diploma in Education, teachers have at least two years of teaching experience before being granted an individual teacher-initiated leave to do an in-service teacher development course at university in order to obtain a higher professional qualification, a Bachelor of Education degree. The two years is a critical and decisive practice phase that would allow the teachers time to reflect and self-evaluate (Alene & Prasad, 2019) to identify what works and does not in their teaching contexts. The teachers make important decisions based on individual teaching experiences as well as introspection premised on self-generated feedback on how to be relevant, effective and a change agent in the current context. This is the stage when teachers make an individual choice to come for in-service at university after identifying areas in which training is most needed.

The expectation then is that after two years of school-based practice, the university in-service teacher development curriculum should answer and help teachers acquire knowledge, skills,

attitudes and values (Leu & Ginsburg, 2011) that respond to the changing educational needs. School experiences offer teachers the opportunity to engage more closely with those changes in education, which becomes the basis for meaning-making and decision-making (Kajee, 2015) about their capacity, knowledge and skills. In the same vein, Cimer et al. (2010) argue that no initial teacher training programme can offer a codified body of knowledge or recipe to warrant success during the teacher's teaching career in different contexts. The implication is that the old and past strategies need to be replaced with a new body of knowledge and skills (Cimer et al., 2010) that would speak to the present educational realities. This is consistent with the dictates of saber-tooth curriculum. Knowledge should be produced in the context of application and answering to the changing times.

Alene and Prasad (2019) describe in-service as an on-going capacity-building exercise and preparing for changes in education that requires new knowledge and skills. Dana (2015) is of the opinion that he who dares to teach must never cease to learn because conditions continue to change. Teachers who fail to understand the demands of new technology-driven teaching contexts fail to take their teaching seriously and often disqualify themselves as teachers (Barnes, 2011). McRobbie (2000) underlines that teaching is an arduous journey of continuous learning rather than a final destination of knowing how to teach. Uchiyama and Radin (2009) shed light that there is no epilogue in teaching given the significant context changes in education. In-service is about elevating teachers' professional practice to a level that they can deal with emerging realities in education by increasing creativity and innovation. Circumstances, knowledge and contexts change with time, requiring new demands. One way of coping with the new changing contexts is to undergo properly designed needs, evidence and practice-driven in-service programmes (Ajiboye et al., 2021).

It then follows those lecturers, as they design the programme, should resist the temptation to envisage the purpose of in-service as to impart any antiquated forms of knowledge and skills. They need to elevate the competencies and preparedness of teachers to confront new educational challenges occasioned by powerful social, economic, political and technological challenges. University lecturers should not desperately cling to antiquated practices that no longer serve practical relevance for the teachers (Karon, 2017). In-service teacher education should develop new capacities that resonate with applying new knowledge in new contexts and work out informed judgments about what works and does not. The in-service should emphasise managing a balance between psychomotor, affective and cognitive domains. Accordingly, at the end of the course, in-service students are expected to have acquired knowledge, skills and attitudes in practice to bring educational change. At university, this requires restructuring traditional regulations and module outlines to respond to and cope with new workplace demands. Thus, van Nuland (2014) observes that in-service curriculum should create space for teachers to explore new issues and experiment with new ideas and theories in real-life contexts rather than keep the curriculum static in competitively changing educational contexts.

The site of knowledge production must shift away from the universities to real school locations where solutions and survival needs are needed for the real changes occurring (Delanty, 2011). Altun (2011) further reports that in-service professional teacher development should be introduced with the realisation that teachers attending courses designed and provided outside schools have little pay-off for the teachers and the whole school. The model suggested by Altun (2011) is that in-service should be done at the school level where teaching and learning take place, new techniques are developed, and needs and deficiencies are revealed. In short, there should be more opportunities of doing, undoing, redoing, experimenting and re-experimenting with new ideas. This should be done until a new and relevant educational framework, prototypes and narratives are developed that address teachers' particular and peculiar circumstances. The most critical time of in-service professional teacher training should be the time spent in schools and classrooms experimenting with educational ideas (Carroll & McCulloch, 2014). This is how teachers, aided by the university in-service programme, should accommodate changes and innovations, keep informed, and contribute to developments in their teaching and education (Hove & Dube, 2022; Nyika & Motalenyane, 2023).

In-service curriculum, if well planned, becomes an important intervention strategy that nourishes teachers to get the best practice knowledge and make the greatest difference in education (McRobbie, 2000). Having in-service teachers' success being judged by passing examinations is to use a theoretical academic approach to tackling classroom challenges. This results in the teachers failing to make the expected impact on education. This may explain why teaching in Zimbabwe has remained relatively static. Others (Machin, et al., 2015) question the usefulness of the in-service curriculum if it cannot be seen as an incubator of educational change. In-service should develop teachers with judgment of what works and does not work in real educational contexts. Communities and the nation at large have, therefore, found it difficult to explain the relevance of the kind of knowledge emerging from universities when in-service teachers cannot produce exploitable knowledge.

Universities enjoy autonomy in curriculum decision-making. Ideally, in designing their curricula, universities package their programmes in response to government policies as well as attending to the shifting national and workplace priorities (Boulton & Lucas, 2008). The regulations, which are the guiding and referral documents, spell out primary and specific aims and objectives. They have a shelf life of three years before they are revised and updated (Khan & Law, 2015). On the other hand, module outlines which are born from the regulations are documents prepared by lecturers showing objectives, content, modes of transaction and assessment criteria. In his analysis, Joseph (2015) points out that module outlines are heavily influenced by the lecturer's concept of what constitutes relevant knowledge in the area. There is a lot of flexibility with module outlines, which can be revised and updated whenever needed. According to Altrichter and Elliot (2009), module outlines may remain sterile for a long time at the hands of lecturers with simplistic input-output models of education.

The implementation modalities of the in-service curriculum are what have become contestable. Conservatives argue that the current practice is 'the heart of real in-service' and reformists calling for a changed curriculum in light of the educational changes.

The in-service-saber-tooth curriculum nexus

Universities have been designed to develop human resources as their top priority. The human capital should have knowledge and skills associated with problem-solving (Whitby, 2010). Today's challenge is providing an education with a social utility in the changing educational and national contexts (Whitby, 2010). Ward (2013) has raised an important concern and observation that how we teach in universities today is similar to how we have taught in the past fifty years.

Juxtaposing the two curricula, in-service and saber-tooth, the common denominator is that while the initially acquired knowledge and skills may have been relevant then, they may not be very significant and necessary any more in the changed contexts. To quote Benjamin (1939), it is supposed that all would have gone well forever if life conditions had remained the same forever. In his comprehensive examination of changing contexts, Yadav's (2010) concluded that:

The schools are changing, schooling has to change, society is changing, social roles and obligations have to change, contexts are changing, contextual meanings have to change and to bring about these changes, the education of teachers has to change, both to understand and facilitate the change in the life of the learner, the community and the nation.

Change, therefore, has become inevitable as conditions have changed and continue to change. A new adaptive curriculum with new knowledge and skills is needed to adjust to the new circumstances. The in-service curriculum needs a 'New-Fist' who is alert to changes in the environment, a doer, and always dissatisfied with the comfortable ways of doing things (Benjamin, 1939). Lecturers and in-service teachers should be willing to improve the curriculum by improvising new ways to make better the life of the teacher, school and the community in a changing world. The new global education context requires a paradigm shift. The in-service curriculum should be an intervention strategy to adjust to these new realities and changes. This article, thus, seeks to contribute to the current debate and add to the growing literature on how the in-service curriculum can be effectively implemented at university level to address new changes in education provision in Zimbabwe.

Problem statement

The current university settings reflect that in-service teacher development curriculum has been theoretically implemented in a context where the purpose of education has shifted to constructing knowledge that speaks to immediate survival needs. Zimbabwe universities experience challenges in conceptualising in-service curricula so that they speak to real-life and local challenges faced by teachers. It appears there is limited understanding of what in-service means and entails, such misconceptions have hindered the implementation of practice-based and transformative curricula. As a result, the programme is experiencing a deterioration of updated practical teaching skills that are socially constructed and context-specific. Thus, the

problem this paper examines is that the university in-service professional teacher development has been ill-defined and poorly provided to meaningfully respond to current educational circumstances, new trends and developments.

Research questions

The study is premised on the following research questions:

- How has the university implemented the in-service professional teacher development programme?
- How can the curricula be transformed to meet the changing needs and local contexts?

THEORETICAL FRAMEWORK

The theoretical background informing this study is sociocultural theory. The main attendant tenet is that knowledge is socially constructed, context-dependent and culturally situated in the context of everyday living and work (Whipp et al., 2005). Professional teacher learning and training during in-service cannot be learned out of context, hoping that later it can be applied in context (Goodnough, 2009). Learning in this situation is viewed as social participation where individual students from different practising contexts actively engage, share, construct and develop new insights into how to solve educational problems they encounter. The sociocultural perspective understands that learning should transcend the traditional classroom which is characterised by the foundational view of knowledge where students are passive learners. The purpose was to transmit knowledge from the lecturer to the student, with the lecturer being the 'sage on stage' (Bargate & Maistry, 2015). They further note that learning is not context-free. It is seen as knowledge construction upon students' unique circumstances. In their important analysis, Whipp et al. (2005) concluded that through participation and shared activities within a specific context, in-service teachers gain knowledge and skills needed to function and solve problems in their particular sociocultural community.

The theory contributes to the discourse of the situatedness of knowledge and the participatory and social nature of learning. Solutions to problems are a human construction motivated by immediate and emerging needs. In this regard, the in-service curriculum should create a learning environment conceived as a shared problem space inviting students into the process of sharing, negotiation and co-construction of the curriculum (Kozulin, 2014). Just like the saber-tooth curriculum, the in-service curriculum should always be under the microscope so that knowledge and skills should be part of the teachers' educationally relevant contexts.

METHODOLOGY

The study reports an interpretivist qualitative case study of one university in Zimbabwe. Our focus was on specific contexts in which people live and work to understand the participants' historical and cultural settings (Creswell, 2017). Our study was premised on how knowledge and skills from in-service teacher development curricula can help teachers engage in purposeful learning and activities to solve local educational challenges in the changing times. The case study

design became appropriate to study in-depth a broad range of ideas and issues on the provision of in-service at the university level and to observe actions and events as they occurred in natural settings. According to Maree (2012), the case study design is about how individuals and groups view and understand the world and construct meaning from their experiences.

Sampling and sampling procedure

The study had a total of five lecturers and ten students. The purposively and conveniently sampled lecturer participants were all in the senior category and experienced in teaching the in-service programme. The students were in-service teachers on the programme. We worked with lecturers and students with the most experience teaching on the programme, and the most years of teaching experience at primary schools, respectively. Consistent with the chosen sampling strategy, the selection of participants was motivated by their availability and willingness to participate and share their experiences without regard to gender. In this qualitative study, we chose a sample that was designed to ensure that we got adequate qualitative interpretive explanations to open up the professional lives and engage in deep insights and practices of participants (Onwuegbuzie & Leech, 2007; Orland-Barak & Hasin, 2010) regarding the in-service curriculum at the institution.

Data collection instruments

Semi-structured interviews

The study used in-depth semi-structured interviews to engage purposively and conveniently sampled senior lecturers teaching the Bachelor of Education (Primary) students to generate stories and personal experiences using multiple voices (O’Cathain & Thomas, 2004) on how the in-service programme was implemented. We interviewed the lecturers to gain their knowledge, opinions, practices and attitudes towards implementing the in-service curriculum they taught. We recognised the importance of the semi-structured interviews as a way of obtaining information through direct exchange with individual lecturers whom the researcher believed meaning related to the in-service professional teacher development resided in them. We provided a set of questions that helped structure and guide the discussion. The interview guide ensured that the basic lines of inquiry were pursued with each interviewee: probing, exploring and asking questions (Patton, 2002). In addition to the semi-structured interviews, we also engaged in informal discussions with the lecturers and students, noting important points, ideas and emerging themes.

Focus group discussion

The study also employed the focus group discussion with ten (10) in-service students studying for a Bachelor of Education (primary) degree. We used this instrument to triangulate with data from semi-structured interviews and document reviews to cross-validate the data. Our intention was to share with the participants a range of perceptions, points of view, experiences, wishes and concerns (de Vos et al., 2012) regarding how the university's in-service curriculum could be used to solve their professional problems in the changing times. The sharing and comparing among the in-service student participants enabled us to understand and record

diverse ideas and experiences in the context of their classroom events and activities. It was an opportunity for the in-service student participants to describe their experiences in their own vocabulary and local terms, grounded in their lived experiences and ways of perceiving reality (Chilisa & Preece, 2005). The compelling reason we used the focus group discussion was the need, according to Fentahun (2021), to generate discussions and get richer and deeper data about the nature of the in-service and its implementation at the university. This required collective meaning, views, experiences, and beliefs regarding the in-service curriculum.

Document review

The documents reviewed were Bachelor of Education (primary) degree regulations and module outlines. The process of document review was used to understand existing regulations and module outlines prepared by lecturers for their substantive content. We used the technique to analyse the content of the module outlines in terms of meanings, ideas and themes and make connections (Neuman, 2003) between and among other data sources: semi-structured interviews and focus group discussions. Furthermore, we used the documents in the study to appreciate how individual lecturers subjectively interpreted and engaged with the in-service world in the changing times. Thus, these documents are a personal account of the lecturers' environment and their subjective interpretation of their own understanding of what they do and events in the world around them (de Vos et al., 2012). Our idea was to focus on describing the real world of in-service teachers and their lecturers (Aureli, 2017). To this end, we were alert to words in the module outlines texts that reflected explicit relevant information on in-service themes as well as important decisions and actions. In addition, we analysed module outlines dating five years back to trace how periodically lecturers reviewed and updated these documents in response to new education challenges and needs.

Data analysis

The case study used data collected from lecturers and in-service student teachers, and we analysed the data using Creswell's (2014) method. In this method, Creswell (2014) proposed a process of preparing and defining data, reading data as a whole, coding data to determine themes and create descriptions, linking themes and interpreting them. With the inductive approach to data analysis, we identified patterns, themes and categories that emerged out of the data (Walliman, 2011). After the identification, we used the thematic analysis to organise the data into meaningful patterns. The thematic analysis helped us to provide a rich, organised and detailed account (Braun & Clarke, 2012) of the participants' stories supported by relevant data extracts.

THE RESEARCH RESULTS

The results of the study are organised according to the emerging themes. The data provided three themes namely, understanding the in-service teacher development and saber-tooth concepts, the in-service curriculum implementation and the assessment of the in-service curriculum.

The problem of this study included how the university in-service curriculum was conceptualised and provided to respond to the changing educational environments in Zimbabwe. The data from senior lecturers and in-service students was about their understanding and experiences with the in-service curriculum, while module outlines provided directions for the in-service curriculum. Consistent with the saber-tooth curriculum and the theoretical framework chosen for the study that knowledge is socially constructed and context-dependent, the data collection tools addressed the need to identify aspects that help the curriculum to speak to the Zimbabwean education realities.

Understanding the in-service professional teacher development and saber-tooth curriculum

The starting point was to guide the results of the study by the participants' characterisation of the key terms; in-service and saber-tooth curriculum. The following emerged as an example in the corpus of their narratives:

In-service professional teacher development is a learning and retraining opportunity accorded to teachers who are already in service to upgrade, up-skill and update professional knowledge, skills and practices (Lecturers, 1,3,5).

In-service is a continuum from initial teacher training with in-service developing and elevating the teacher to higher levels of operation. It is an intensive programme of up-skilling teachers from Diploma/ Certificate to degree level (Lecturer, 2).

With in – service, you are growing and equipping the teachers with knowledge and skills to be effective classroom practitioners (Lecturer, 4).

On the other hand, in-service students, while agreeing with the lecturers, during focus group discussion, collectively revealed the need to consider contexts where they would apply taught concepts. This was reflected in the following summarised comments:

In-service is about practising teachers' individual initiative to get new and relevant knowledge and skills to be competitive in the teaching world. The learning and acquisition of these skills should be located in a real classroom situation so that it's not about knowledge and skills for the sake of it. Getting knowledge and skills that are not relevant to solving our teaching problems in our unique contexts may not be necessary (FGD).

From the statements by participants, we discerned that conceptually, they had a very good overall theoretical grasp of the concept. From the data provided through semi-structured interviews and focus group discussions, the participants' views indicated the known issues that in-service professional teacher development was a journey to discover those teaching deficits and practise gaps to update them. In both instances, lecturers and students agreed that the success of the in-service curriculum should be judged by attaining a deeper understanding of the Zimbabwean educational milieu that promotes and stimulates growth and attend to existing educational demands as espoused by the saber-tooth curriculum.

The students' definitions of the concept appeared more grounded in practice than their lecturers. The in-service teachers maintained the need for an umbilical cord connecting the in-service curriculum and practice in real-life contexts.

After getting the views of the participants regarding their understanding of the term in-service, we sought to find out their views on the saber-tooth curriculum. Some of the lecturer participants were not very clear about the concept, as is evident from their statements:

I remember this from our curriculum lectures some time back, but it has to do with a curriculum that should change and that there is no curriculum that can be relevant to all times (Lecturer 1)

I have heard about it but am not too sure what it is all about but has to do with curriculum change (Lecturer 2, 4)

Saber-tooth curriculum is about how an old curriculum can be changed to suit the new conditions, as evidenced by the Ice Age story of how the changing times made the initially accepted curriculum redundant (Lecturer, 3,5).

However, in-service student participants were almost in agreement regarding the saber-tooth curriculum, as shown by their summarised FGD comments:

We have learnt about the saber-tooth curriculum presented as a story of how an initially useful curriculum was made irrelevant by the changing circumstances necessitating the need for a new curriculum to speak to the new realities. However, some conservatives still believed in the old curriculum and wanted it to continue and others thought it had outlived its usefulness and a new curriculum was necessary (FGD).

The above sentiments elaborate on how the curriculum change through the Ice Age fable can be connected to in-service practices as a transformational approach if lecturers and students can embrace it. In their own words, they appear to understand the story from a superficial level, and they need to demystify it and socially construct an in-service curriculum implementation plan.

The in-service curriculum implementation

The in-service programme, just like any other university programme, was implemented based on the regulations and module outlines in which the lecturers were the most significant players in their formulation. The two policy instruments raise very important questions regarding the relevance of knowledge, skills, attitudes and values that the in-service teachers should acquire during in-service training and how to saber-tooth the curriculum for generating knowledge in context.

The following is typical of what the lecturers said regarding the importance of the regulations and module outlines as in-service curriculum implementation documents:

The regulations and module outlines are lecturer-generated contractual documents that bind the student and the university, and without them, we do not have a programme. Through these documents, the requisite knowledge and skills are developed (Lecturer 1,5).

If relevant stakeholder consultations are done and they are well crafted, regulations and module outlines can help the programme address critical knowledge and skills gaps and

add value to the professional experiences of teachers in changing times. It appears this has not been happening (Lecturer 2, 3).

While regulations have a shelf life of three years, module outlines can be reviewed every semester or even during the semester to attend to new and emerging educational issues. With module outlines, the lecturers have the opportunity and autonomy to reshape content, strategies and evaluation techniques to include that which resonates with the time (Lecturer 4).

Taken together, these general sentiments by the lecturers suggest that regulations and module outlines influence and shape the in-service teacher identity as well as affect their participation in the broader education context in Zimbabwe. The knowledge, skills and newly acquired abilities through in-service training should empower and educate the teachers in line with principles of adopting new strategies to improve learners' outcomes in socially created contexts. The lecturers subtly suggested that they did not consult critical stakeholders in crafting the documents. There was no participation by in-service teachers in the formulation of these implementation documents. The statements by lecturers were neither in keeping with Vygotsky's (1978) sociocultural theory nor with saber-tooth principles, which point out that education is a social process and should be construed within a relevant cultural, institutional and historical context.

Asked about the current in-service curriculum implementation practices, the lecturers had this to say:

I do not see anything wrong with the current in-service training. I do not see any other better way of doing it. There is no way we can introduce Teaching Practice, which they did during initial training- it would not be morally and professionally correct (Lecturers 2& 4).

The other group of lecturers thought otherwise.

The way we have implemented our in-service programme leaves a lot to be desired. This armchair training is not ideal and is wrong. Assuming that teaching skills gained from initial training are still relevant today may not be true. A lot has changed. In-service should be different from initial training in that now teachers know what is very important for them to be effective. The in-service retraining should be hands-on in real classroom contexts to address the current challenges in education. In-service teachers should spend more time testing and experimenting with ideas in the classroom rather than sitting in lecture rooms listening to content and theories that may not be relevant during their teaching. While theories are important, they should not take the bulk of their in-service time (Lecturers 5).

Why do we still have very old theories informing practice today? How is Piaget, Bruner, Vygotsky and many others still relevant? Do we not have new theories that speak to the current circumstances? There are modules that have become a permanent feature of the programme, yet I do not see their utilitarian value (L 1)

We have continued to produce specialist primary school teachers, yet on the ground, these teachers are general practitioners teaching all the subjects in the primary school curriculum (Lecturer 3).

These observations were collaborated by in-service teachers during focus group discussion.

Much of the content is enrichment and does not speak to real classroom issues. It's all about getting the qualification than getting knowledge for practice. At times, you do not see the value of the qualification because it does not empower us to be critical thinkers and generators of new knowledge.

The results reveal that there has not been commitment and willingness to change the in-service curriculum, thus creating a professional distance between the programme and the needs of the in-service teachers. Old practices still exist in the in-service programme. To this end, the in-service teachers had not benefited much from the programme. The inability to effectively implement a refreshed in-service programme has compromised the strength of the programme. Accordingly, the lecturers should find ways to make the programme more complete, competitive, stronger and effective for the in-service teachers by developing a responsive, socially constructed saber-tooth curriculum. It was evident from these in-service stakeholders that there were some areas that needed to be looked into to improve the relevance of the programme, yet nothing was happening at implementation level.

Analysing the module outlines used by the senior lecturer participants for the past five years revealed a very worrying trend of recycled documents and lecturers grappling with basic tenets of educational change. This deconstructs the notion of lecturers as having an omniscient status, as they had not embraced the current discourses on transformative and innovative education in universities. In-service students have remained powerless and marginalised in the curriculum construction and only to be consumers. From the module outlines provided, the in-service teacher development has maintained and developed a strong academic base in a changed education context where developing practical skills has become paramount. The content taught was theories on foundations of education with emphasis on the same theories of Bruner, Piaget, Bandura and many others and learning area-specific content usually taught out of praxis. It appeared the lecturers had not asked the students what they needed. Overall, the observation from the module outline documents provided by lecturer participants was that they were monotonously routine; the same module outlines every semester, the same content and the same approaches.

The assessment criteria of the in-service curriculum

According to the assessment criteria in the module outlines, the in-service teachers are required to pass knowledge-based examinations. The student teachers write a three-hour examination weighted as sixty percent examination and forty percent coursework of written assignments and or presentations using the current assessment criteria, which was first implemented in August 2022 examination session. Previously, the assessment threshold was

seventy percent examination and thirty percent written coursework assignments. In-service teachers made similar observations:

We start each two weeks block release semester, the major concern being to pass examinations. Lecturers always give us study areas to help us pass the examination. At least now the new 60% examination and 40% written coursework is much better than the previously used 70% - 30% weighting. Being assessed in real teaching contexts as we apply knowledge makes more meaning (FGD).

When asked how best they thought in-service teachers could be assessed, some lecturers had this to say:

The use of reflective portfolios, teaching practice, developing teaching materials for the learners using local resources in their environment, and any other suggested innovative ways could be more relevant than using examinations.

This assessment regime is still heavily skewed towards and focused more on examinations. Assessing the in-service curriculum results in students acquiring knowledge forms that do not change the education environment for the better, which is not consistent with the dictates of the saber-tooth curriculum framework. In-service must not end with the writing of examinations but must culminate in the development of new ideas and practices that benefit the education system in Zimbabwe. It appears the lecturers have some alternative to the examinations as a mode of assessment but may lack the power to negotiate the current in-service education environment for a call to support assessment innovations.

DISCUSSION OF FINDINGS

The question posed at the start of the study was how the saber-tooth curriculum can be used as a vehicle to reform the in-service curriculum to meet the unfolding new education demands. Firstly, we sought to establish the participants' perceptions of the driving concepts: in-service and saber-tooth curriculum.

The overall interpretation from the participants was that they knew in-service professional teacher training and were not well socialised on the saber-tooth curriculum framework. While correct definitions of key terms could be a necessary precondition and opportunity for the successful implementation of the in-service curriculum, Mufanechiya (2012) warns that it might be one thing to theoretically define concepts and another to operationalise them. In this context, participants, especially lecturers, need to transcend the theoretical understanding of what constitutes in-service and saber-tooth and develop a complete knowledge and usable skill set for the teachers to succeed in the changing times as was the case with the saber-tooth curriculum. These definitions are the beginning of curriculum contestations arising from a lack of consensus, differing perspectives and beliefs on how to provide an effective in-service curriculum at the university level.

The second level was how to implement an in-service-saber-tooth curriculum approach using knowledge and skills generation approach in Zimbabwean universities. In Zimbabwe,

events of the past two decades, the land reform, the high unemployment levels, the need for new hands-on skills from school graduates, the new competence-based curriculum framework introduced in primary and secondary schools, the technological wave sweeping across the education sector have provided both exogenous and endogenous factors for the need for in-service curriculum change. The new dimensions, just like what happened with the saber-tooth curriculum, provided imperatives and insights that should help reshape the in-service curriculum narrative and focus not on antiquated historical nostalgia but on purposeful educational activities. The result links with Ward (2013), who reminds us that in-service settings require a focus on the practice of teaching, leading to teachers emphasising doing rather than talking about teaching. The study results dovetail with Opfer and Pedder's (2010) conclusion that in-service professional teacher development that focuses not only on the academic subject matter but that gives teachers opportunities for hands-on and is integrated into their daily life of the school is more likely to be effective. The argument develops Karon's (2017) notion that just as the saber-tooth curriculum which was not about theory but about change to address the new realities in societies, in-service should also be designed to practically meet the education-specific needs of the time if the new knowledge acquired through in-service is to make an impact in education. In that case, it should be socially constructed so that students open up to notice the critical changes that help them create perspectives that address the emerging challenges in education.

The Paleolithic saber-tooth curriculum contestations still exist today. In their reflections, lecturers showed differing schools of thought on how the in-service professional teacher development at university could be implemented. Some conservatives argued for the already existing system, while progressivists advocate for and influence the reshaping of the in-service programme so that it becomes worthy, relevant and appropriate. The potential contest and stagnation of the in-service curriculum is in line with Kozel's (2018) notion that if it is not broken, don't fix it. The context at the university is that the in-service implementation has remained traditional, offered on the block release form, at most two weeks of contact time focused on content and then a three-hour examination. This in-service curriculum has broken and needs to be fixed. Yet, in their important analysis, Opfer and Pedder (2010) concluded that in-service professional development was less effective at changing teacher practice when it is focused on theory out of context.

The third level was to understand the in-service assessment regime and its effectiveness as presented by the participants and from the reviewed documents. The saber-tooth and the in-service curriculums are social constructs whose efficiency is measured not by examination but by the students' ability to solve immediate educational problems, that is by what the students can do in real-life contexts rather than what they know at theoretical level. The finding resonates with Kozel's (2018) and Robinson's (2019) observation that saber-tooth curriculum's success was assessed for its agility to deal with emerging problems in society, and so should be the in-service teacher education curriculum. Sadly, the success of the in-service teacher at the

university was judged by the simplistic transmission of knowledge and recall in examinations. Examinations should be complemented by appropriate practical and contextually relevant assignments that speak to the realities of the new educational issues emerging in the rapidly changing world. Van Nuland (2014) challenges this 'one size fits all' approach which does not acknowledge in-service teachers as dynamic generators of new knowledge but seen as consumers of ready-made solutions to unknown classroom problems. The results confirm Kozel's (2018) observation that we seem to be so preoccupied with what students know that we have overlooked how they think and solve problems. Using the saber-tooth curriculum knowledge generation approach to the implementation of the in-service may provide pathways to deep and engaged thinking for improved education provision.

The results from the participants and the documents reviewed are in sync with Opfer and Pedder's (2010) findings that most university-based in-service offer teachers a narrow range and lack varied opportunities to change practice. This explains why Ward (2013) argues that what universities are doing too often is not to focus on the practice of teaching but instead on the theory of teaching. From the findings, it appears a lot of changes are taking place in the teaching-learning contexts, and less is happening at the university level where teachers are in-serviced.

Limitations of the study

The study was conducted at one university and might not be generalised beyond the sampled university to other contexts in Zimbabwe. However, the notion was not to generalise the results but to have a detailed comprehensive description of the implementation of in-service at the university to better understand the phenomenon. Another limitation of the study was the use of the purposive sampling strategy, a non-probability sampling technique which relied on the researchers' subjective judgment. This makes replicating the study and verifying its findings challenging for other researchers. Consistent with qualitative research principles, other researchers may look at the same phenomenon from another lens where results can be compared to further enrich the in-service teacher development under study.

Implications for the study

The study has significant implications for the current university in-service teacher development context in Zimbabwe. With the country's education challenges and the need to meet the education demands of the 21st century, the question of how the in-service teacher education curriculum would respond has become pertinent in the current Zimbabwean context. To address this question, the present study explored the use of the saber-tooth curriculum framework to deliberately design a skills and knowledge generation model of in-service teacher development in Zimbabwe. In this vein, the in-service teacher education curriculum should focus on teaching students how to cultivate and use skills to improve themselves and their work environments. The in-service should be implemented in the spirit of the saber-tooth curriculum framework, constantly reflecting and thinking about new ways the education curriculum can be adapted to the demands of the changing environment. Another discernable implication from

the study is that in-service teacher development should create opportunities for the creation of new perspectives, improve practice and avoid stagnation by adopting new innovative strategies that solve educational problems.

CONCLUSIONS

The intersection of the saber-tooth and in-service curriculums manifests the expected responsive education curriculum system needed in Zimbabwe. However, without using the saber-tooth curriculum framework, participants expressed continuing concerns regarding the in-service programme having provided very little added value with little impact on the Zimbabwean education system. The findings have also provided evidence about the need to rethink how the in-service professional teacher development programme in universities could be enhanced for a response-based and context-based professional education development. The study underlines the need for genuine understanding of the programme intentions from both the lecturers and the in-service teachers and comes up with a saber-tooth template for the in-service programme. The call was for some robust, meaningful criticism and engagement between and among the stakeholders to reduce the differing perspectives. This would make the programme implementation clearer and more fruitful with a better appreciation of the objectives to be achieved by the programme. The idea is to develop a knowledge generation teacher education model to ensure change and improved education provision in Zimbabwean primary schools.

Recommendations

The study makes two key recommendations.

- There is a need to enhance the participation of in-service teachers in debates on how the programme can be effectively implemented.
- The programme's design and review process should be improved to ensure that it remains relevant and up to date to meet the educational needs of the changing times. A knowledge and skills generation training model is possible for in-service programmes in Zimbabwe.

Suggestion for further study

The researchers recommend a study on the impact of in-service graduates on the education system in Zimbabwe as compared to those who have not been in-serviced.

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