

Educational e-accountability: Lessons for Zimbabwe's educational accountability system

Shepherd Shoko*

Midlands State University, P Bag 9055 Gweru, Zimbabwe

*Correspondence: ✉ chikonas@staff.msu.ac.zw

Abstract

Background: Zimbabwe still relies on a traditional educational accountability system that can no longer cope with new pressures for educational accountability in the face of changing conceptions and practices of Educational Accountability. This prompted the researcher to explore a possible alternative of an educational accountability system driven by technology

Method: Educational e-accountability systems in three countries were analysed to draw lessons for Zimbabwe's proposed educational e-accountability system. The researcher employed a qualitative approach using the content analysis technique. The focus was on some online studies purposively selected and derived from the EBSCOHOST, JSTOR, ProQuest E-Book Central and Google web search engine. The paper exposed the inadequacies of Zimbabwe's current educational accountability system, which is described as traditional, limited, and weak in feedback mechanisms as compared to accountability systems of the other three countries, namely the United States of America, Australia, and Botswana.

Findings: The proposed e-accountability for Zimbabwe, unlike other countries reviewed that rely on one form of accountability, draws from external and internal accountability systems informed by Open Government concepts to maximize the combined strengths of these three conceptual frameworks. If implemented, the new e-accountability system will improve accountability, efficiency, effectiveness, trust, transparency, feedback, and ultimately, the educational outcomes in Zimbabwean schools.

Keyword: e-Accountability; Professional Accountability; Market Accountability; Political Accountability; Educational Accountability

INTRODUCTION

This literature research study focuses on educational accountability in Zimbabwe's education system. More than forty years after independence, one would think that Zimbabwe's education system has come of age; Schools are accountable to stakeholders, and results are very good. Far from that, Zimbabwe's education system is reeling under endless criticism. Many schools have become notorious for consistently producing zero percent pass rates year after year (Tshili, 2024). Student indiscipline and corruption have become rampant (Education Coalition of Zimbabwe, 2017). Graduates have no jobs and cannot create their own employment. On the other hand, parents have challenges knowing why the schools are failing to serve their children. Information is not readily available on whether learners get the necessary learning opportunities, resources, and support from the state and the schools (Chiri,



2020). It is not easy to establish if school heads are providing proper leadership and are managing resources at their disposal effectively and efficiently for the good of the schools under their charge. It is difficult to tell why graduates are roaming the streets jobless; there are low-income students and students with disabilities in schools. Equity and equality advocates have no way of knowing whether these students are getting the necessary learning opportunities and resources. District schools inspectors are incapacitated (Muswere, Jita & Chimbi, 2024). No mechanism is in place to involve stakeholders and parents meaningfully in their children's learning or to identify the many schools that need help to improve and set them on a course to do so. Information about how schools are operating is not easily accessible to those who may need it. In a report by the Auditor General, in some districts, there was no monitoring mechanism at all, and the districts had no cars for school inspectors to move around schools (Chiri, 2020). Accountability challenges are endemic in many African states, too. For example, in a study assessing accountability measures in South Africa, Bantwini and Moorosi (2023) noted that there was a wholesale lack of accountability for student learning outcomes in South Africa. Against this background, the writer's point of departure is that, time is overdue for rethinking education policy in Zimbabwe around issues of accountability, particularly e-accountability. There is a need to reimagine school accountability to better prepare the state, students, families, communities, and schools with timely and relevant information and support to improve trust, transparency, and the quality of schools' outcomes and outputs. Despite many discussions on accountability or education reform in Zimbabwe (Chiri, 2020; Education Coalition of Zimbabwe, 2017; Muswere, Jita & Chimbi, 2024; Tshili, 2024), no one has comprehensively explored a dashboard-based integrated e-accountability system for all stakeholders. This study explores this grey area.

The concept of 'accountability' means that individuals and organizations have to account for or be responsible to a higher authority for their actions, behaviours, performance, and decisions about educational processes and outcomes (Amin, 2024; Matete, 2021). Educational accountability systems are meant to measure and report on how well the State and schools are serving students in ways that can be understood by policymakers, parents, students, and other stakeholders. The accountability process involves a systemic measurement, collection, analysis, and use of timely and relevant information about schools' teaching-learning processes and outcomes. The information is used for assessing and evaluating the performance of schools as a way of holding the state, parents, schools' leadership, and educators responsible for student performance. Accountability is often conceived from the perspective of the higher authority demanding accountability from schools (Ports, 2023). However, in line

with contemporary principles of democratic voice and public participation, accountability in education should create an obligation for all education stakeholders to account for educational processes and outcomes. It should provide stakeholders with an opportunity to articulate and represent their views as a way of enhancing trust, transparency, and ownership of accountability policies and initiatives. It is hoped that an accountability system that leaves no one behind, particularly a move to an e-accountability system, will improve accountability and push up performance standards in Zimbabwean schools.

The accountability movement in public education has been evolving over the years. According to Ndlovu (2017), accountability started with the efficiency, effectiveness, standardisation, and measurability of outcomes rhetoric of scientific management of the Industrial Revolution era. The movement resulted in the industrial model of schooling and bureaucratic administration (Ndlovu, 2017). Also, the current democratic movement sweeping across countries has thrown in issues of school choice and competition, reinforcing the accountability movement. As a result, more and more education stakeholders demand that information about teaching, learning, educational management, and educational results be reported and explained to the state, parents, and other stakeholders in a timely and transparent way.

The accountability analysis that will be done in this article is hinged in part on the reader's understanding of accountability models that will be discussed in this section. Accountability comes in two broad forms: external and internal accountability. External accountability systems can be understood as a complex arrangement of policies and directives created by the state and other actors outside of schools, who are in a position to reward and punish schools for their performance (Knapp & Feldman, 2012). (Louis & Robinson, 2012; Knapp & Feldman, 2012). A few examples of external accountability systems are described below.

Political accountability as a form of external accountability is where broader community interests are expressed through those voted into power, like school development committees, and also the minister of education and other political figures who make decisions about broader educational policy, reforms, funding, monitoring, and evaluation of programs (Portz, 2023). In Zimbabwe, accountability policies and regulations cascade down from the Minister of Education, the Education Permanent Secretary, and Provincial Education Directors in the form of statutory instruments and circulars.

Market accountability as another form of external accountability looks at the preferences and decisions of parents and learners, conceived of as the "clients" or "consumers" of education, whose expressed desires for schooling and ultimate

decisions about school choice motivate and guide educators' work (Moller, 2009; Louis & Robinson, 2012, Wahitu, 2017). Schools are seen not as public service providers but as providers of a consumer good called education.

An alternative to external accountability is internal accountability. Internal accountability means that school-based educators must come up with locally crafted accountability systems to which they hold themselves accountable to their profession and the teaching-learning processes and outcomes (Li & Tsang, 2023). It involves adhering to professional standards of good practice set up by local school management and teacher professional bodies like the Zimbabwe Teachers Association. At the school level, the school management team plays a pivotal role in enforcing professional accountability by crafting policies that guide teaching and learning processes, enforcing professional conduct, and reporting to parents.

Whilst most of the above forms of accountability have expression in Zimbabwe's education system, the challenge is with how these accountability measures are implemented. In Zimbabwe, external accountability measures are still locked in traditional methods whereby the Education Provincial Directors, Education Permanent Secretary, and Minister announce new policies through statutes and circulars (Chiri, 2020). Enforcement is done by school inspectors who visit schools and generate reports. External accountability is also enforced by parents having general meetings once or twice a term and school open days that happen once a term (Chiri, 2020). At these gatherings, parents and other stakeholders like local traditional leadership are appraised about teaching and learning and school development projects. The school Head and his or her administration team also play a pivotal role in implementing, managing, and monitoring internal accountability systems through generating termly and annual reports and also doing local teacher inspections and supervision.

Looking at how accountability is being enforced in African countries, it can be noted that many African states have embraced one form or the other of educational external accountability. For example, according to Baghdady and Zaki (2019), Uganda's Ministry of Education introduced the Annual Performance Report, which gives an account of the Ministry's actions and their results at the input, process, and outcome levels as a way of enhancing accountability and transparency. In Kano state in Nigeria, school communities receive school report cards that show basic information about their schools. In the northern regions of Namibia, parents and school councils are involved in the writing of their own report cards and school improvement plans. Baghdady and Zaki (2019) go on to say, that in Ghana, they have a School Performance Appraisal Meetings system that brings together major stakeholders in education to discuss results of nationwide assessments of Math and English, as well as tests of

literacy and numeracy. In Zimbabwe, the quality of the assessment of student achievement and its reporting in public media and other relevant platforms is the responsibility of the Zimbabwe School Examinations Committee (ZIMSEC Act 1994).

According to Khan and Hossain (2020), e-accountability is a systematic approach that uses digital technologies to support accountability in education. It involves data collection, analysis, reporting, data-driven decision-making, transparency, and stakeholder engagement using relevant information and communication technologies. In addition, Singh and Singh (2018) propose that digital e-accountability technologies may be used to generate educational data warehouses that may be used to track student discipline, attendance, and performance, measure teacher performance, and generate school reports, among other things.

e-accountability in most African countries is the brainchild of the United Nations, conceived from its emerging philosophy of Open Government. Open Government is an emerging concept, particularly in developing countries, aimed at enhancing governance by applying the concepts of openness, participation, collaboration, and full engagement of the masses (OECD, 2023). Participants rely on the power of information and communication technology (ICT) to facilitate the implementation of the Open Government concepts (United Nations Economic and Social Commission for Western Asia (ESCWA), 2021). Under the United Nations, in partnership with the World Bank, prototype mobile phone-based school accountability e-systems anchored on Open Government concepts have been introduced in several African countries. For example, there is the Ntxuva Citizen-reporting platform in Mozambique, the MyVoice project in Nigeria, and the *Allô École!* ('Hello, school!' in French), in the Democratic Republic of Congo and the RapidSMS U-Report in Central Africa (Kuwonu, 2020). All these accountability systems share a lot in common and heavily draw from the Open Government philosophy, and the e-Thuto in Botswana was chosen for detailed discussion in their place as a typical example.

In the wake of other African countries embracing e-accountability systems and recording impressive results, the traditional accountability frame is blamed for the accountability challenges the Zimbabwean education system is currently facing (Education Coalition of Zimbabwe, 2017). Resources to monitor accountability in schools are severely limited (Chiri, 2020). There is delayed feedback. Transparency and participation by parents, learners, and other stakeholders are limited such that school outcomes sometimes come as surprises (Education Coalition of Zimbabwe, 2017). It is not clear how, if at all, the many forms of data manually generated and collected from schools by Ministry of Education officials and school heads are used for decision-making. This paper argues that Zimbabwe may be innovative and learn from next-

generation digital e-accountability systems being implemented in other countries that rely on the power of information and communication technologies (ICT) to hold the state, schools, and communities accountable for school performance and outcomes, as already discussed. Under this argument, the study is guided by the following research questions:

1. What e-accountability systems are used by developed and developing countries?
2. How can these accountability systems be harnessed to create an educational e-accountability system for Zimbabwe?

As such, an analysis of digital e-accountability systems used in America, Australia, and Botswana is made. The aim is to draw object lessons that may assist Zimbabwe to migrate from the current traditional accountability system to a modern e-accountability education system. Whilst this may benefit Zimbabwe, it is likely to benefit many other countries whose educational accountability systems are lacking or are under development.

METHOD

This normative, qualitative study employed a three-country case study design using the Constant Comparative content analysis technique. The Constant Comparative content analysis involves constantly comparing new data with previously collected data, looking for similarities and differences, and identifying patterns, themes, and meanings (Arteaga, 2023; Hassan, 2024). The case study and constant comparison analysis both enhance a deeper understanding of the research phenomenon and the discovery of new insights about how educational accountability in the named country can be improved. This study is a literature research study, and Data was collected from online studies purposively selected and derived from the EBSCOHOST, JSTOR, ProQuest E-Book Central, and Google web search engine based on the research focus. The keywords that were considered for searching and selecting the studies were educational accountability, e-accountability in education USA/Australia/Botswana, and accountability in the digital era. Twenty-six studies were reviewed, and special attention was paid to selecting studies from countries with different e-accountability systems and different developmental levels, for instance, developed and developing nations. For example, America is one of the pioneers of educational accountability based on the high-stakes accountability system, whilst Australia is a developed country with a market accountability system that has produced high-quality schools (Gurr, 2020). Botswana is a developing country following a professional accountability system, picked as a model country under the

United Nations e-accountability initiative, in partnership with the World Bank's prototype mobile phone-based school accountability E-Systems. Countries that had no e-accountability systems were excluded from the search. After establishing the categories, the researcher coded the texts according to country, accountability type, and accountability key characteristics that include monitoring standards and student assessment. Reporting on results, stakeholder participation, and more. Relevant information from each country's accountability system was then extracted, analysed, and compared with the systems previously discussed. The analysis is guided by Stakeholder theory, which states that organizations aim to generate multiple benefits for different stakeholders (i.e., groups and individuals who can affect or be affected by the school organization—e.g., parents, learners, communities, teachers, and the government (Mahajan et al., 2023). What follows is an analysis of the e-accountability systems of the three countries alluded to already, starting with America.

RESULTS AND DISCUSSIONS

The first research question focuses on e-accountability systems that are being used by selected developed and developing countries.

EDUCATIONAL E-ACCOUNTABILITY IN AMERICA

America is one of the pioneers of educational accountability. In America, accountability is built around three principles, which are creating rigorous academic standards monitored by the state (high-stakes accountability), measuring student progress against those standards, and attaching some consequence to the results (MacKenzie & Kress, 2015). The need to work with very big data sets accurately and efficiently, simplifying it and disseminating it to the public, made the use of digital accountability systems an integral part of the American accountability systems (Watson & Pape, 2015).

Public schools in the United States operate under state accountability systems that vary from state to state. In this study, Michigan State was chosen for scrutiny since it has the basic characteristics shared by most states. Michigan's school accountability systems are based on state-wide student assessment scores and other quality metrics like academic achievement, academic progress, graduation rates, and college career readiness. These provide transparency on school performance for all schools in Michigan State, meant to help parents, communities, and policymakers measure school quality and make decisions about school choice. MI School Data is the State of Michigan's official public e-accountability portal offering multiple levels and views of analysis presented in graphs, charts, trend lines, and downloadable spreadsheets to support meaningful evaluation and decision-making (Department of Education, 2022).

According to the Department of Education (2022), the portal that anyone can access online to learn about a particular school using a computer has the following tabs;

The *Parent Dashboard tab* is Michigan's preferred accountability system for parents and others to view a particular school's performance and ranking relative to other schools in the state. The *School Index* tab provides a 0-100 overall school index value for all schools in the state, depending on their level of development and performance. Using this information, parents may monitor their child's school index and make school choice decisions. The *School Grades tab* provides A-F letter grades and rankings for each particular school based on student proficiency in targeted assessments, student growth over time, graduation rates, and academic achievement in English, Arts, and Maths. The *Annual Education Report* tab contains yearly performance reports that schools post as part of the federal Every Student Succeeds Act (ESSA). It also contains student demographics like enrolment numbers, race, ethnicity, and socio-economic status. The report also contains information about teacher quality, school safety, discipline, and college and career readiness.

The *National Blue-Ribbon Schools* tab provides a list of schools recognized for their academic excellence or progress in closing achievement gaps. The *At-Risk Students* tab provides a School-based program for each school detailing how the school is supporting regular attendance, proficiency, and career and college readiness for students lagging. Generally, the Michigan State accountability system, like all the other states, is an External Accountability System centred around student performance on state-wide assessments and sanctions.

The challenge with external accountability and its testing regimes in America is that it is obsessed with test results as an indicator of school performance, and it assumes that all learners become ready to be tested at the same time, using the same testing tools, and they must be tested on the same content. Also, the system only allows parents and other stakeholders to view data about their schools, but with no option for giving feedback. Learners are also excluded and are not held accountable for their performance by the system. The state does not see itself as having to also be accountable for schools' performance under its jurisdiction. The state leaves the schools to shoulder all the responsibility for learners and overall school performance, particularly test results. Finn (2022) and Portz (2023), who say educational accountability in America has always focused on results and school-level accountability, confirm this.

EDUCATIONAL E-ACCOUNTABILITY IN AUSTRALIA

Australia is one of the developed countries that has a robust educational accountability system. My School is an online educational e-accountability portal run by the Australian Curriculum, Assessment and Reporting Authority (ACARA). ACARA is an independent authority accountable to the Education Council, which comprises the education ministers of the 9 governments of the Australian Federation (Department of Education, 2022).

According to the Department of Education (2022), My School contains data on every school in Australia on each school's student profile, its performance on national assessment programs, and funding. The portal also shows enrolment numbers and attendance rates for each school. It also provides a measure of a school's performance in terms of students' literacy and numeracy outcomes, enabling schools to develop targeted improvement strategies and monitor their progress. *My School* enables a school's National Assessment Program – Literacy and Numeracy (NAPLAN) results to be compared with the results of students from other schools who have a similar background. A school's student background takes into account the parental education levels and employment types, geographic location, and the Indigenous status of its students. On the *My School* portal, parents may have informed discussions with teachers and school administrators. Parents have access to information about various functions of the school, something that empowers the parents to make informed decisions about their child's education. The portal can also generate information that helps parents see how a school is performing in supporting student progress, particularly those who are lagging.

Although the *My School* digital accountability system measures school and learner performance in national assessment tests, it has a strong bias towards market accountability, hence its thrust of accountability to parents and the community. Unlike the American system, the Australian system is not driven by state sanctions for poorly performing schools. This may be attributed to the fact that ACARA is an independent authority accountable to the Education Council and not the government. Also, unlike the American Michigan parents' portal's one-way communication, the Australian parents' portal offers two-way communication between educators and parents. In addition, the *My School* portal provides a detailed analysis of learner backgrounds to provide a context for analysing learner performance.

Whilst providing two-way communication between parents and educators by *My School* is commendable, the move may be seen as a way of piling more accountability pressure on educators since parents' accountability in the process is not defined. The state's role in the whole accountability matrix is also not clear. According

to the Department of Education (2022), the information parents get from the *My School* portal does not necessarily tell them anything about the quality of a school and its teachers. *My School* does not give direct information about school culture, community connections, and values, something parents may want when making a school choice. For both the American and Australian accountability systems, the end users, particularly teachers, have very limited or no input they contribute to the accountability system. This was also noted by Smith and Benavot (2019), who opined that absent in discussions of accountability are the voices of stakeholders who work, learn, and teach in schools and other educational institutions.

THE E-THUTO EDUCATIONAL ACCOUNTABILITY IN BOTSWANA

e-Thuto is a type of professional accountability system and is an interactive web-based platform that was developed in the North East region of Botswana to make schools, learners, parents, and the North East Regional Office more responsible for their schools' performance. E -Thuto converges all education stakeholders into one virtual office where schools' management data, e-learning, and teaching resources are easily accessible. The result-based accountability platform of e-Thuto is backed by an e-learning module. The module is loaded with information and materials that schools may use for teacher professional development and learning content for learners. The e-learning module is open for use by teachers and students, with a portal where parents may actively participate in the ongoing learning activities of their children. The parents won't have to wait until the end of a term or the end of the year to find out about how their children are doing, as teachers can easily and almost instantly communicate with the parents (Kuwonu, 2020). As such, the school leadership, teachers, parents, and learners work in a transparent and supportive environment that promotes collective accountability for school results and schooling outcomes.

e-Thuto has another module that manages the regional data of staff and student information. According to Kuwonu (2020), this has resulted in the creation of one virtual office where all the data in the region is stored and where information, including individual learning performance of learners and schools, can be accessed and compared.

e-Thuto was conceived with contentious issues of equity and access in mind. Most developing nations in Africa have limited access to computers, and knowledge to effectively use the computer is equally limited. Cognisant of this fact, e-Thuto users need a simple mobile phone to access all its features, with an option for parents and other users to communicate in their local languages. The e-Thuto accountability system is also built around a strong feedback mechanism for parents, learners, and

educators. Informed by Professional Accountability, educational administrators and educators are mandated to account for their work to parents and learners through constant feedback and interaction. However, the role of the state, national testing, rewards/punishments, and standards in the whole process is silent. It is also not clear whether schools are rewarded or punished according to their performance.

The second research question focuses on how reviewed accountability systems can be harnessed to create an educational e-accountability system for Zimbabwe.

Proposed Educational e-accountability for Zimbabwe

As espoused by the Global Monitoring Report team (2017), Education is a collective responsibility, and as such, educational accountability must be everyone's responsibility. In line with the Global Monitoring Report team (2017) and stakeholder theory, the e-accountability system proposed here highlights the significance of many stakeholder perspectives and voices in educational management (Peng, Alias, & Mansor, 2024) and strives to make the school accountable to various stakeholders in education. As such, the e-accountability system proposed for Zimbabwe would be a hybrid of the external and internal accountability systems, informed by professional accountability and Open Government concepts, as a way of capturing the broadest array of stakeholder needs. For example, accountability will be defined in terms of the role of the state and related stakeholders in the provision, monitoring, and measuring of school performance, outcomes, and reward systems. Accountability will also be defined by the role of parents and learners in reporting and shaping educational processes and outcomes. The accountability roles of educational professionals like school heads and educators to their profession, parents, learners, and the state will occupy a critical place in the whole setup.

As suggested by Mangwaya, Mangwaya, and Shoko's (2023) study, Zimbabwe will be better off in terms of accountability if an independent board to oversee accreditation and accountability issues is formed. Educational e-accountability for Zimbabwe will then be an independent online accountability system answerable to this board. The e-accountability system should be accessible from both computers and mobile phones. It will use all official languages in the country. This approach to increase the accessibility and reduce the costs of the e-accountability system was successfully implemented in low-resource contexts like Mozambique, the Democratic Republic of Congo, and Nigeria (Kuwonu, 2020). It is proposed that Zimbabwe's e-accountability system will have the following features.

State accountability dashboard

This site will show each school's performance in national examinations, the school's ranking based on such examinations, and the teaching and learning support,

for example, the Basic Educational Assistance Module (BEAM), Presidential and other scholarships, and the Social Welfare grants from the government for each particular school. Initiatives the government is taking for schools performing poorly, including professional development programs, rewards, or punishments, will also be viewed here. School heads will also be able to view schools' annual reports on this platform. School management will be able to access the Ministry of Primary and Secondary Education calendar of events, policy documents, and circulars on this dashboard. There will be a tab where school heads can participate in local and national educational policy debates generated by the Ministry of Primary and Secondary Education office in line with the Open Government concept of mass participation. State interventions to enforce schools' accountability improved school results in America (Finn, 2022; Portz, 2023), and Zimbabwe may gain from similar experiences.

Schools' performance accountability dashboard

The school performance accountability dashboard would allow parents and other stakeholders to view any school in the country's performance information. This includes information on each school's national reports, a school's students' profile, grade, and ranking based on national assessment programs like the Zimbabwe Schools Examinations Council, its enrolment numbers, and attendance and completion rates. It would also provide a measure of a school's performance in terms of students' literacy and numeracy outcomes, like the Performance Lag Program (PLAP). Stakeholders may compare the data on this dashboard with the results of students from other schools who have a similar background. A school's student background would take into account the parental education levels and employment types, geographic location, and the Indigenous status of the students. The dashboard would also show the state and school's systems of support and intervention for learners lagging. A school's performance would tally with a well-defined system of rewards and sanctions. A performance-based accountability thrust has yielded excellent performance in America, Europe, and Australia (Moller, 2009; Louis & Robinson, 2012; Knapp & Feldman, 2012; Gurr, 2020), and is likely to do the same for Zimbabwe.

School administration accountability dashboard

Ministry of Primary and Secondary Education officials, parents, and school heads will be able to access all the important information & updates about any school in one place for example, calendar of events, admissions, staff profiles, Staff attendance records, educator and school prizes, trophies and other notable achievements, vision and mission, core values and school policies, extracurricular and wellness programs. The dashboard will also be able to show school projects and achievements, as well as

how school resources are being accounted for. There would be a tab where school administrators and educators will be able to participate in school-based and national-level educational issues and debates, thus contributing to the shaping of local and national educational policy in line with the Open Government concept.

Parent Accountability Dashboard:

This dashboard would allow parents to view their children's profiles, schedules, disciplinary records, and performance in school-based and national assessments. The parents would also be able to access their children's e-learning content, and also actively participate in the ongoing learning activities of their children through a short message service (SMS) or call using interactive voice response (IVR) mobile technology. The World Bank (2017) pilot study, using the Allô École! Mobile application in the DRC posted impressive results, and the study has since been expanded. This suggests the feasibility of utilizing mobile technologies in the proposed parent dashboard. In Addition, all the support the parents are rendering to their children and the school will also be viewed on this dashboard. Parents will also be able to participate in school-based and national-level educational issues and debates using a tab on this platform, thus contributing to the shaping of local and national educational policy in line with the Open Government concept.

Educator accountability dashboard

The dashboard would allow educators at a particular school to access Student Records and communicate with parents, students, and administrators. Educators will also be able to generate reports and create and share e-learning content with learners and parents. There will also be a tab where educators will access and share ZIMSEC and school-based past exam papers, project tasks, homework, and e-learning content with peers, parents, and learners. Educators will also be able to view professional development programs being offered by the Ministry of Education and other training institutions. On the same platform, educators will be able to participate in policy issues debates monitored by the Ministry of Primary and Secondary Education in line with the Open Government concept. In a study about teacher accountability in China, Tsang, Zhang, Teng, & Song (2023) found that teacher accountability is the cornerstone of quality education.

Learner accountability dashboard

The learner accountability dashboard would allow learners to view their profiles, report cards, attendance, safeguarding needs, discipline, and behavior records. The dashboard will allow learners to access e-learning tools tailored to meet personalized learning experiences for each learner. Learners will also be able to send and receive messages from teachers, the school head, and parents. There would be a portal where learners will be able to participate in school-based and also national-level educational

issues and debates in line with the Open Government concept of participation in shaping educational policy. Such participation was seen to enhance transparency and commitment among learners in Botswana (Kuwonu, 2020).

Implementation matrix

Drawing lessons from Botswana's experience, e-accountability in developing countries will benefit from low-cost technologies. As such, Zimbabwe's e-accountability system will be based on a short message service (SMS) or call using interactive voice response (IVR) technology compatible with a simple and cheap Android cell phone, which almost everyone can operate. The Internet is readily available from service providers like Econet and Telone, though data bundle prices for learners will need to be reviewed to make it more affordable. Reviewing of data tariffs may be resisted, but the government, which is already in overdrive training teachers in information and Communication Technologies for teaching, has good reasons to consider subsidising data for learners. Training will be needed to build awareness and familiarise teachers, parents, learners, and other stakeholders with the use of this digital platform. This may also help manage resistance from those used to the old ways of doing things. The new e-accountability system could start as a pilot program in a few school districts before going nationwide. Funding options that include school and government budgets, donor support, may be considered to fund the implementation of the program.

CONCLUSION

The paper exposed the inadequacies of Zimbabwe's current educational accountability system, which was described as traditional, limited, and weak in feedback mechanisms. A review of the e-accountability systems of America, Australia, and Botswana was made with a view to drawing objective lessons to propose an educational e-accountability system for Zimbabwe. The proposed e-accountability for Zimbabwe, unlike other countries reviewed that rely on one form of accountability, draws from external and internal accountability systems informed by Open Government concepts to maximize the combined strengths of these three conceptual frameworks. If implemented, the new e-accountability system will improve accountability, efficiency, effectiveness, trust, transparency, feedback, and ultimately, teaching and learning outcomes in Zimbabwean schools and in other countries whose accountability systems match that of Zimbabwe.

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