



# Impediments to the Use of ICT in Intermediate Phase Language Classrooms: A Case of South African Township Schools

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## Abstract

Research has shown that reading in most of the South African primary schools is still a problem. In the past 10 to 15 years reports highlighted English First Additional language as the problem, but recent reports indicate that the problem has extended to the home languages, and for most South African learners a home language will be an African language. There is evidence that reading with comprehension is the main challenge. There is also a body of research suggesting that teachers struggle to develop the various reading comprehension skills. The primary purpose of this funded project seeks to expose the primary language teachers to the technology that can be factored into the reading lessons, to develop the reading comprehension strategies in intermediate phase English First Additional Language and Sesotho classrooms. The plan is to work collaboratively with a minimum of 100 primary English teachers per year, with focus on township schools, as the indication is that this is where the problem is mostly prevalent. The initial stage of this interpretive project, which is premised on Participatory Action Research, has thus far revealed the following: some school managers are not fully involved in the integration of ICT in their schools; in some there is no collaboration among teachers across the subjects; in some schools computer laboratories are reserved for mathematics; some language teachers do not consider ICT as part of language; workload issues discourage language teachers from focusing on ICT; in some schools intermediate learners still struggle with foundational components of reading such as fluency and decoding; the lack of Sesotho reading material and applications on the internet is a concern. The conclusion is that as much as there are problems, it is still a good idea to continue with ICT integration, in the process working creatively to offset challenges.

**Keywords:** Reading, collaboration, comprehension, competency, ICT

## **1. Literature Review**

### **1.1 Need for Private Supplementary Tutoring**

The South African language setup in the schools is complicated, as it differs from school to school, depending mainly on the location of the school. Based on the research results of recent years, many intermediate phase learners in township areas seem to struggle more with reading, as compared to those attending schools in towns or cities. One of the solutions suggested is the introduction of information Communication Technology (ICT), and this paper explicates views of teachers and school managers on the integration of ICT in intermediate language classrooms.

## **2. Background**

There is evidence that performance in reading in the intermediate phase classrooms in South Africa is not satisfactory (Davids, 2019; Haupt, 2019; Howie et al., 2017; Van Staden & Bosker, 2014). English First Additional Language (EFAL) seem to be a subject that researchers are more concerned about in this regard, however, this project includes Sesotho Home Language (HL), with the belief that reading competency in HL does influence reading competency in EFAL. Moreover, reading with comprehension has been singled out as a major concern, and there are insinuations that some language teachers do not even know about the reading comprehension strategies (Pretorius & Klapwijk, 2016; Rule, 2017). This means they may not be teaching comprehension effectively, because reading comprehension strategies are encapsulated within comprehension. This ultimately results in poor performance in other subjects, as most of the learners use language to learn in the content subjects (Department of Education, 2011). Comprehension is crucial, as it determines success in school, workplace, daily life (Spencer & Wagner 2018). On the other hand, Nyanda and Azmy (2020), warns that learners struggling with comprehension end up with low self-esteem, a situation that eventually leads to poor performance across their subjects. Nyanda and Azmy further postulate that poor comprehension can negatively affect problem solving capabilities. Studies on the causes of this problem are in abundance, and others provide some possible solutions, and Information Communication Technology (ICT) has been singled out as a possible solution.

ICT integration in South Africa has been a policy matter for decades (Mulaudzi, 2024). Furthermore, ICT can enhance reading comprehension (Capodieci et al., Helmers, 2017, Lysenko & Abrami, 2014). Additionally, some of the previous research, even though all is not on comprehension, provide ideas that can be modified to suit a reading classroom. Ntsala and Mogashoa (2024), presents insights on how social media, particularly Facebook, can improve essay writing in EFAL classrooms. Several groups on the mentioned platform do contain material related to other language competencies, such as reading. Mwapwele, Marais, Dlamini & Biljon (2019) also highlight social media as a beneficial application for language augmentation. In fact, Acosta (2024) presents evidence on how social media can help improve reading comprehension. There is also evidence that immersive reader, an application available on many computers and laptops, can improve reading. The same application can also improve vocabulary, as argued by Azman et al. (2023). Improved vocabulary is one of the foundational requirements for effective comprehension. Despite these positive assertions, the integration of ICT in South African classrooms is still minimal.

Munje and Jita (2020) highlight a concern about a slow uptake of ICT in South African schools. This work was not subject specific, but it explicates a general problem. Some researchers raise, amongst others, reasons such as limited time, lack of ICT expertise, issues

of power, limited resources and limited pedagogical knowledge on the part of EFAL teachers (Ntsala & Seabela (2023). In addition to causes mentioned, Wagdid & Mahlo (2022) blame teachers' age and policies at provincial and school level. Having said that, some studies indicate that it is not all doom and gloom. The work of Mwapwele, Marais, Dlamini & Biljon (2019), on rural teachers and the use of technology, indicates encouraging results on aspects such as optimism and innovation, on the part of teachers. To take advantage of the benefits of ICT, and to offset the challenges already mentioned, this project seeks to expose intermediate phase language teachers to relevant ICT applications that may enhance instruction on reading comprehension. The following objectives refine this objective:

- a. How do intermediate phase language teachers integrate ICT in their reading classrooms?
- b. What challenges are intermediate phase language teachers faced with in relation to ICT integration?
- c. How can the insights benefit intermediate phase language teachers?

### **3. Problem Statement**

The recent reports on reading indicate that many South African intermediate phase learners cannot read with understanding. Chances are some can read, but they are not able to remember and explain what they have read. In such a case learners will struggle to use reading for learning. The ability to comprehend depends on well refined reading comprehension strategies, and in cases where this competency is lacking, challenges related to comprehension will continue. It is imperative for the language teachers to know about the reading comprehension strategies, their impact, and how they can be fine-tuned. This is what this project is in pursuance of, but in addition, the project factors in ICT, in fulfilment of the 4<sup>th</sup> Industrial Revolution.

### **4. Theoretical Issues**

The current project is premised on the appreciative inquiry, a theory which has links to positive psychology (Chevalier & Buckles, 2013). Appreciative inquiry is a form of action research that focuses on the positives within an organization. These positives are used to contribute positively to the organization (Macpherson, 2015). The way the project is planned, and the design which has been selected, will provide the intermediate phase language teachers with the opportunity to look at their problems in terms of teaching of reading, and appreciate the need to advance own suggestions, in terms of how technology can be of assistance in relation to their problems. In line with the proposed research design, the following 5 steps of appreciative enquiry, as suggested by Acosta (2005) are observed:

1. Establishing the focus and the scope of the inquiry
2. Eliciting stories of the system at its best.
3. Collecting the wisdom and imagining the future.
4. Deciding on an appropriate design.
5. Deciding on suitable action to achieve objectives.

### **5. Body of Paper**

This section of the paper focuses on aspects related to philosophical underpinnings, and methodology. In addition, this section presents current results of the project, together with associated conclusions and recommendations.

## **5.1 Methodological Issues**

This project is in line with the interpretive paradigm, because the objective is to source individual consciousness and subjectivity of intermediate phase EFAL and Sesotho HL teachers on ICT integration in reading lessons (Kivunja and Kuyini, 2017: 26). This paradigm allows the researcher to ascertain how the participants make sense of the requirements related to integration of ICT in their classrooms (Günbayi & Sorm, 2018:6). In line with the chosen paradigm, this project is qualitative in nature, because participants get a chance unpack own life experiences, and suggest solutions to own contexts (Flick, 2022:10). The study focuses on the social realities and life experiences of Sesotho HL and FAL teachers, on the integration of ICT in reading lessons (Muzari, Shava & Shonhiwa, 2022).

This project is premised on the principles of Participatory Action Research (PAR). This form of research involves risk taking and experimentation in social reflectivity, backed by evidential reasoning and learning through experience and real action (Chevalier & Buckles, 2013). The referred to authors also indicate that PAR encapsulates Appreciative Inquiry, which is about the reality that human beings have the capacity to bring change to their own environments. I considered PAR to be appropriate, because in the context of education research, it recognizes that both learners and the teachers should become co-researchers, and they get a chance to co-generate knowledge (Galletta, 2019). It is linked to action research, but also draw from other theories (Jacobs, 2016). Actually, according to Ayaya, Makoelle & Van der Merwe (2020), there are signals that action research is gaining momentum in South Africa. This project will provide the participants such an opportunity. Several designs are presented in different formats, but this project will be guided by the action research model suggested in Pardete (2019), which consists of the following steps: planning, acting, observing & reflecting. The following will be the activities per stage:

### *Planning*

- Initial interviews & meetings.
- Jointly deciding on the suggested strategies/tools/applications/plan of action.

### *Action*

- At this point the participants will be implementing the interventions as suggested during the planning phase.

### *Observing*

- As the participants continue with the implementation, the principal researcher will be visiting the sites to observe how the suggested strategies are implemented.

### *Reflection/reporting back*

- During the reflection phase of the project the participants will get an opportunity to share their experiences.

In terms of participants, the objective is to work with two hundred and twenty five teachers in a three-year circle, but data discussed in this paper is based on the views of thirty teachers and school managers who participated in the planning stage of the project. Because schools operate differently, some assigned a School Management Team (SMT) member to provide the needed information, while most granted permission to subject teachers (both EFAL and Sesotho HL). All are working in township primary schools in the Free State, particularly those that have been sighted as poor performing. Data collection is structured along the

principles of Participatory Action Research (PAR), which is a design that guides this project. As part of the planning phase of the project, participants interviewed individually about their experiences concerning ICT integration in intermediate phase EFAL and Sesotho (HL) classrooms. The interviews were audio-taped, after which they were transcribed. The transcripts were thoroughly interpreted to identify categories and themes.

## 6. Results

As per the design and the objectives guiding this project, the initial phase involves a factfinding exercise, to determine who is, and who is not using ICT. For those who do, focus was on how, and for those who do not, the focus was on the obstructions. The results come from the five head of departments, two deputy principals, 1 principal, and 22 language teachers. 15 of the language teachers are responsible for EFAL, while the other eight are responsible for Sesotho. Acronyms are used to refer to the different categories of participants HoD for head of department, DP for deputy principal, P for principal, ET for English teacher, and ST for Sesotho teacher. The data revealed two themes, namely, current practices, and challenges.

### 6.1 Current Practices

In terms of current initiatives, the data indicates that although most participants are not doing anything at all, a few of them are trying. The response below by one HoD indicates that laptops are used by some teachers, but only for planning and administration.

*HoD 3: At this school we do have laptops for each department, but they are for planning*

and administration only.

It means they do have some ICT gadgets, but they are not yet capable of integrating them in their lessons. The reality highlighted by HoD below, on the other hand, signify a fact that some managers do not know what is happening in the classrooms in as far as ICT is involved.

*HoD 5: We have computer laboratory. It is for 'Maths', but some language teachers have been asking for keys, to have lessons in there.*

The above quotation commences with a constructive aspect, which is a fact that at this school, the computer laboratory is not reserved for one subject. Having said that, the latter part of the response intimates that she has no essentials about what is happening in the laboratory. The same sentiments were invoked by the response of P1 below.

P 1: We already integrate ICT in English, even though I am not sure how or in which topics. It was already our plan to use ICT a lot. Collaborating with Universities will really help.

In contrast to the statements attributed to some managers above, the response by DP 1, at another school, paints a picture of a manager who knows what is happening, and has a zest for technology and ICT.

DP 1: We can even start this year Sir, before we plan for next year. We have been using

a TV to teach stories... We have started, but we use only the flat TV for stories.

She insisted that whatever workshop or training we have in mind concerning this project should happen urgently, to enable their school to factor ICT related lessons in their planning for 2025. The response below by a deputy principal at another school also gave the impression that the school has started implementing ICT, with a plan of expanding to higher grades in future.

DP 4: We do use ICT in foundation phase a lot. Many teachers are involved there. From

next year will be involving the grade 4 learners.

Some of the subject teachers who were released for the initial interaction also gave their views. ST1 was particular in terms of how he integrates ICT.

ST 1: I sometimes use the projector in the mathematics laboratory to teach the weather bureau. The school allow us as language teachers to use the laboratory...

Sometimes I record the Sesotho weather report.

Subject teachers, like ET16 and ET 10, are also integrating ICT by making learners watch stories, and they mention benefits such as improved discipline and improved understanding.

ET 15: I only use a projector sometimes, for stories, and they love it. I do not struggle with discipline.

ET 10: In my school we have many learners, but sometimes I take them to the library to

watch videos, especially if we discuss a difficult story.

## **6.2 Challenges Encountered**

The previous discussion highlighted some good practices taking place. This section focuses on the challenges exposed by the participants. One of the concerns mentioned was the issue of security.

P 15: Our frustration is lack of support from the community. We keep on buying these things, and we spend money, but they get stolen. Maybe when we have security we will try again.

This is reality most township schools are faced with. As a former teacher, who also served as a member of the SMT, and the School Governing Bodies (SGS's), one was involved in many platforms where this issue was discussed. Still on the issue of support, ET1 complained about lack of support from management.

ET 1: The SMT do not say anything about technology. If you do it you can, but they do

not tell us we must. Maybe you researchers must talk to them.

This is a noteworthy concern. Mingaine (2013), refer to body of research emphasising the need for school managers to lead ICT integration. This argument can be linked to the concern below by ET 3.

ET 3: We have the laboratory, with computers, but it is reserved for Mathematics.

Unfortunately, they also do not use it. I hardly see them there.

As already alluded, this symbolises lack of cohesion, in addition to lack of leadership. Continuing with challenges, HoD 3 raised concern about timing, and effectiveness as some Professional Development (PD) initiatives presented late in the year, without meaningful follow-up.

*HoD 3: People come during the year, when our plans are already in motion. We cannot*

do anything at that point. Again, some of the training does not help us. There was workshop few years back, but those people did not come back.

The data further highlight the problem of a wrong mind set among the language teaching staff, as per the views of ET6.

ET 6: We do not talk about technology in our language meetings. Sir we already have lot to do.

Above is a short statement that raises two realities with possible negative implications. The statement shows that some language teachers wrongfully consider ICT surplus to requirements in language education. Furthermore, they believe contextual factors exonerates them from certain requirements. For purposes of this paper a contextual factor refers to impediments schools and teachers must deal with. This is because some templates provided by the departmental officials, where teachers must outline issues related to performance, accommodates challenges under contextual factors. The response by ET 4 below indicates that socio economic factors are also a concern.

ET 4: My concern is that we do these things here at school. Technology needs them to practice, but at their homes they do not have these things...another problem is data, and their parents complain. Another contextual factor raised by ET 15 and ET 2 is workload.

The statements by two English teachers below raise frustrations related to workload.

ET 15: Over-crowded classes... Sir we have a lot of children, and the computers need a small class. Perhaps that is why people are not so interested. We hear about this everywhere.

ET 2: Our programme is loaded. There is this thing called PSIRP. We are supposed to complete it together with CAPS. Problem is we do not even know how to implement it. The subject advisor sometimes gives contradicting advice.

You see, it is difficult to think about these technology things.

These are irrefutable trials, that many township teachers must deal with, however, language teachers should also be thinking of solutions, especially on matters they have power on (Ntsala et al. 2021). As it is argued in the section on discussions, ICT may assist mitigate some of these concerns.

Below is a concern that may be beyond individual teachers.

*HoD 1: We had a good Sesotho teacher, who always took the learners to the laboratory.*

I would find children busy with computers, but he was temporary. He is gone

now.

This raises concerns about recruitment. Unfortunately, based on experience, this is an issue that many schools cannot easily solve, unless they embark on a concerted effort to upskill their staff, as argued in the conclusions section. The concern by ST 11 below is one of the aspects that teachers can do something about, because it is about intermediate learners who struggle with decoding and fluency.

ST 11: Your project may help us, the learners cannot read, let alone reading with comprehension. Most of them are not fluent, and they can hardly complete a sentence. Sir, they struggle with simple words. Maybe your project should first focus on that problem.

The last concern was raised by ST 7, about relevant ICT applications and material for Sesotho subject.

ST 7: There is a need to have relevant computer applications in Sesotho language. We do not have many applications that are in our languages. Now we use English in Sesotho lessons....And there is also no ready material for Sesotho on the internet.

## **7. Discussion**

This section provides conclusions recommendations on the findings presented in the previous section. The data presented indicates that some intermediate schools are trying in terms of integrating ICT in the language classrooms, however, many of the sampled township schools are not yet doing anything. There was also an indication that in some instances there is no willpower on the part of the language teachers. This is concerning, because intention on the part of teachers count more than availability of resources and expertise (Graham, Stols, & Kaap, 2020).

As indicated in the background section, integration of ICT is a policy matter, and teachers must understand it from that outlook. Possibly, language teachers may think ICT is only for mathematics and scientific subjects, hence one of them indicated that it does not even feature in their meetings. This is where managers at school, district and provincial levels should play their role of communicating requirements to subject teachers. It is now twenty years since ICT integration in classrooms was made mandatory. By now subject advisors must have communicated and motivated this requirement. This argument is somehow relevant to the aspect of school managers discussed in the next paragraph.

Data indicates that some school managers do not have specifics about what happens in the classrooms in terms of ICT. It means they are not playing their role in terms of championing ICT integration, which is against expectations. It is emphasised that school managers, especially principals, should drive the ICT integration initiatives. Yamamoto & Yamaguchi (2019) link this responsibility to transformational leadership. This assertion may also respond to the concern by some English teachers about lack of support from school managers. The hierarchical requirements of department of education dictates that in many instances subject teachers should rely on guidance and permission from line managers. Without this guidance chances of success remain minimal or non-existent. The expected support will include the aspect of PD.

Agyei (2020) supports the importance of PD initiatives in relation to ICT enhancement, however, a concern was raised about the timing and effectiveness of initiatives. If schools and

language teachers appreciate their responsibility in terms of ICT, they should be pro-active, and initiate training of staff members. In that way they may have control on the schedule. They will also be in place to prescribe the objectives.

Still on issues related to management and leadership, there is a concern about personnel that keeps on changing. In most cases this movement is unavoidable. In many cases these are temporary, recently graduated teachers, and in most cases, it is this cohort of teachers that is involved in ICT. Once such an individual is in the school, the management can use him or her to train some of the staff, but the most sustainable option would be to organise regular professional development initiatives for all subject teachers.

Data further explicated the fact that in some schools, language teachers are welcome in the mathematics laboratory. That is a progressive approach, unlike a school where the mathematics laboratory is reserved for mathematics only. It is not clear what the reasons for the latter reality are, but in cases where the laboratory is the only facility with ICT equipment, and there is proper planning across the subjects, a solution is possible. When the department of education built the laboratories Free State, they were called “Maths labs”, but there was no official statement barring other subjects from the centre. Liu (2018) presents evidence that working together as schools can lead to improvement on many aspects, including curriculum. The same argument can be made about sharing within a school. All stakeholders should embrace the importance of resource sharing.

Data also indicates that ICT practices seem to be limited to basic activities, with projection of stories highlighted frequently. Other than that, teachers use ICT equipment to prepare. These teachers should be encouraged to do more, and for that to happen successfully they need professional development. This is critical, because (Mulaudzi, 2024), reminds us that the E-education whitepaper of 2004, emphasised curriculum modification, to accommodate ICT in different subjects. Projects such as the current one, which resulted in this paper, will go a long way towards exposing them to other activities, and associated applications they can use for those activities. Mahlo & Waghid (2022) presents evidence that communities of practice may assist teachers to improve own ICT skills. Furthermore, in line with the principles of Community Cultural Theory, schools can take advantage of the expertise in the surrounding community, by identifying IT competent individuals who may be willing to assist, and not only by training teachers, but also by assisting in classrooms.

One of the teachers raised a concern about learners not getting an opportunity to practice at home. This is a tangible concern, seeing that transformation of instructional time in student learning is a main source of efficiency or inefficiency in schools (Mergoni, Soncin & Agasisti, 2023). The background section indicates, amongst others, that social media can assist in terms of reading and comprehension. Many of township households, and even children, now of late, have cell phones, and activities can be structured with this reality in mind. If the community is poor, children who do not have access to gadgets at home can stay behind for additional exposure and practice. Implication is that learners must be exposed as much as possible. This means taking advantage of what is already available. In the background the usefulness of social media is highlighted, together with immersive reader. More applications may be identified if time is invested prudently. For instance, Smart TV's already have access to applications such as U-Tube, with plenty of games aimed at enhancing language competency. Even on google, useful internet games are available. For most of the games a child will not even have to register. These platforms can also be accessed through cell phones. This discussion also serves to mitigate concerns about learners struggling with foundational competencies such as vocabulary and fluency. Indeed, lack of mastery in other components of reading such as fluency, may affect competency in terms of comprehension

(Spencer et al., 2018). It is a discussion that should also benefit intermediate phase teachers who complain about lacking ICT skills.

Data also revealed two issues that happen to be related, which are, over crowdedness and loaded programmes. In addition, the participants mention the Primary School Reading Improvement Programme (PSIRP), a collaboration between department of education and National Education Collaboration Trust (NECT), with the aim of alleviating reading challenges in the intermediate phase. The complaint is that it is not clear how it should be implemented it, and how to harmonise it with the Curriculum and Assessment Policy Statements (CAPS). Meaning, they have an additional responsibility, but they are confused in terms of implementation. Teachers should engage their line managers, or even subject advisers, to avoid confusion and wastage of time and energy. On the issue of overcrowded classrooms and workload, language teachers should be aware that if used creatively, ICT can help alleviate workload (Roberts, 2016; Selwood, 2005). For instance, most teachers spend a lot of time on assessment, but Alwurais, Wills and Wald (2017) point out the usefulness of e-assessment options in terms of reducing the stress related with marking and providing feedback. This requirement to invest time in a meaningful search for answers, teachers may unearth solutions to the concern about unavailability of Sesotho based applications.

The concern raised about lack of Sesotho specific applications is justified, even though the trend is beginning to change. There are a few applications aimed strictly at learners of African descent, such as curious reader, which is aimed at Sesotho language. Some are aimed at Swahili speaking people. In addition to doing a focused search, schools should consider partnering with developers of the educational software and applications and present their needs to them. It is important to bring this need to the attention of department of education as well.

The last point raised is the frustration in terms of the safety of ICT gadgets, and the neighbouring communities are blamed. This was mentioned by only one of the respondents. Once more this raises the issue of management, but this time coupled with governance. The department of education has long granted permission to schools to hire registered and competent security guards or companies. What is required at school level is a discussion this can be achieved.

## **8. Conclusion**

This paper is linked to an ongoing, funded project, aimed at the integration of ICT in intermediate English and Sesotho classrooms. It was important to commence with an audience analysis, to ascertain who can do what and who has what in terms of ICT, to plan relevantly, and contextually. Having said that, a wish is for the results and discussions to be interpreted contextually. Based on the engagement with the participants, the project will focus on the aspects that have impact on comprehension, before focusing on comprehension. What is clear is that even though both intermediate phase English and Sesotho teachers are frustrated, some indicated strong willingness to use ICT to mitigate reading challenges.

It was also clear from the data that there is work to be done in terms of ensuring that all school managers appreciate their role in terms of ICT implementation. Furthermore, in line with the advice of Kennedy and Cronje (2024), there is a need for a model that will assist in determining the effects and magnitude of ICT integration in language classrooms. These researchers advocate for a context-aware ICT appropriation model. This will result in a precise, scientific way of determining the extent and effectiveness of ICT integration. Such a move is supported by Divayana, Suyasa & Widiartini (2021). This means all pertinent issues

such as sourcing of equipment, training, and implementation should consider the context of the school community. This should be a consideration at all levels, even though such an activity may be useful at national level. This belief is invoked by the certainty that the national department should have more resources and influence, as compared to the provincial and district levels.

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