Rethinking literacy pedagogy in the context of 4IR: Learners' access and reading motivation

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Background: In the education sector, technologies are (or can be) repurposed in the Fourth Industrial Revolution (4IR) to facilitate teaching and learning. However, this shift may impact on learners' access to reading materials and reading motivation.

Objectives: The aim of the study was to determine whether Grade 8 English First Additional Language (FAL) learners' motivation to read is influenced by access to reading materials in a traditional classroom setting or through online reading platforms.

Method: Likert-scale survey questionnaires were used to measure this relationship. Data from 466 Grade 8 English FAL learners from six South African township schools were collected and SPSS version 25 was used to analyse the data.

Results: In traditional classrooms, the findings showed that increased access positively influenced motivation, whereas this effect was not evident in online reading platforms. However, in both settings, motivation increased when learners had access to a diverse selection of reading materials. Finally, the findings indicated a parallel relationship between learners' low motivation and limited access to reading platforms.

Conclusion: The study concluded that while traditional classrooms continue to play an important role in global education, the ongoing evolution of technology-based learning platforms has compelled a shift in reading practices toward online platforms, which are reshaping the educational landscape, demonstrating the increasing significance of technology-mediated learning in modern education.

Contribution: The authors recommend enhanced collaboration between teachers and learners to devise innovative methods for motivating online reading, ensuring learners' inclusion in the 4IR literacy pedagogy evolution.

Keywords: English First Additional Language (FAL); access to reading materials; reading motivation; traditional reading; online reading; learners.

Introduction

Education and learning, like all other areas of life, had to undergo drastic changes during the coronavirus disease 2019 (COVID-19) pandemic (Adeyemi 2020). In South Africa, for example, emerging Fourth Industrial Revolution (4IR) technologies reconfigured traditional avenues of teaching and learning practices (Moloi & Marwala 2021), reshaping how teachers perceive educational enactments. Mahdy (2020) notes that as a result of the COVID-19 pandemic and associated lockdowns, many institutions suspended face-to-face classes and switched to online classes. In other words, internet-based online education platforms have changed the way teachers teach and learners learn (Mhlanga 2020), which has necessitated a cognitive adaptation in how teachers perceive education. Although digital technology advancements such as e-readers, tablets, and smartphones had been steadily gaining popularity prior to the pandemic, it appears that the pandemic hastened the transition to online reading platforms. To put it differently, the COVID-19 pandemic, while hastening the adoption of digital reading materials due to lockdowns and remote work (Larivière, Desrochers & Macaluso 2021), primarily served as a catalyst for the transition from traditional to online reading enactments.

Pokhrel and Chhetri (2021) view the COVID-19 lockdown as the greatest disruption to education systems in human history for which sweeping changes had to be made in all aspects of our lives. They further note that soon after the COVID-19 pandemic subsided, many researchers shared their experiences with the various approaches used in teaching and learning during the lockdowns when traditional educational practices were replaced with online learning. This was necessary, as

in their 2021 study, Pokhrel and Chhetri observed that the COVID-19 pandemic facilitated the widespread adoption of digital learning. However, it appears that when returning to in-person teaching after the COVID-19 era, many teachers, particularly in South African township areas, reverted to traditional methods, emphasising physical interaction with printed materials for reading instruction. As a result, as various researchers have pointed out, including Mahdy (2020) and Pokhrel and Chhetri, the lockdown measures imposed during the COVID-19 pandemic had a variety of effects on the realm of teaching and learning. To put it another way, in most cases, particularly among Grade 8 English First Additional Language (FAL) learners in the township-based schools under investigation in this study, education has become a combination of blended and hybrid learning, as well as e-learning and online learning, as Carrim (2022) has pointed out. This shift is likely to require novel approaches to both the learning processes and reading practices of learners. Thus, inspired by the lessons learnt during the COVID-19 lockdowns, this study focused on learners' reading activities, both online and in the traditional classroom.

The availability and reading of books at home has always been an important part of expanding one's knowledge. Books were essential in maintaining and fostering reading habits among people of all ages during the COVID-19 lockdowns. When contact classes were suspended, books available in the home environment facilitated continued literacy development (Hutton et al. 2015). However, the binary relationship between classroom reading and online reading was not as clear as one might have expected during lockdown, because several factors muddled this binary distinction. For example, the uneven access to online resources (National Center for Education Statistics 2021) posed a constraint that forced schools and teachers to reconsider sole reliance on online reading materials, indirectly acknowledging the importance of physical interaction with printed materials for reading instruction. Teachers' recognition that online reading resulted in lower comprehension than traditional print materials was another factor that disrupted the reading equilibrium pattern (Mangen 2008). As a result, when physical books were available, teachers increasingly encouraged learners to use them. In other words, during lockdowns, books in the home assumed a multifaceted role in bolstering reading literacy. Consequently, the binary relationship parameter lines between classroom reading and online reading blurred due to the constraints of online reading, simultaneously highlighting the advantages of physical books.

As learners were denied access to traditional classroom reading during the COVID-19 lockdowns and were only exposed to online reading, the authors of this article sought to investigate learners' perceptions of the two types of reading instruction and to determine the mode that provided higher motivation, as motivation is an important aspect of reading development. In addition, as access to reading materials plays a key role in the process of reading to learn

(United States Department of Education 2015), and in light of the unequal socio-economic levels in South Africa, it was important to determine the learners' access to reading materials and the influence it may have had on their reading motivation in the two contexts. As stated by the United States Department of Education (2015), the importance of ensuring that every child in the country has access to reading materials cannot be over-emphasised. This view is supported by the New Zealand Ministry of Education (2020) in a report that argues that access to reading materials means learners are more likely to read for pleasure, which leads to frequent reading and, as a result, increases their confidence, motivation and reading achievement. De Bruyckere (2018) has a similar viewpoint, contending that increased accessibility through close physical proximity to reading materials will likely increase learners' reading opportunities and their motivation to read.

Reading motivation is considered by Hubbard (2022) to be instrumental in learners' reading achievement and academic performance. McQuillan and Au (2001) state that studies on reading motivation have found that access to reading materials has an important impact on the number of materials learners choose to read. The results of their study showed that, regardless of the learner's reading ability, convenient access to reading materials was associated with frequent reading. Thus, there is a close relationship between access to reading materials and motivation to read. Evidence of the high correlation between reading motivation and reading practices has been documented over the years (Wang & Guthrie 2004; Wigfield, Gladstone & Turci 2016). These researchers conducted research in the field of reading literacy, using learners in educational settings as their primary context of investigation, with a specific focus on the factors influencing reading comprehension, such as motivation. Ahmadi (2017) explains that highly motivated learners are expected to read more. In particular, Schutte and Malouf (2007) state that it is important to motivate learners to read and give them access to reading materials. In this context, it appears that highly motivated learners read more than less motivated learners (Conradie, Jang & McKenna 2014; Pachtman & Wilson 2006; Schiefele et al. 2012). As a result, Morgan and Fuchs (2007) contend that there is a bidirectional relationship between reading motivation and reading practices, such as when, how, and why learners read, which can subsequently be expedited or impeded by learners' access to reading materials.

The COVID-19 pandemic acted as a catalyst, forcing schools to transition from traditional reading practices to online reading practices, which influenced learners' motivation to read. In other words, schools were compelled to rethink literacy pedagogy in the context of the 4IR and expose their learners to internet-based online platforms. For example, Uleanya (2023) carried out a study in Botswana with a particular emphasis on the academic discourse of the 4IR and schooling. The study's findings revealed that challenges including curriculum problems and a shortage of electricity

in remote regions, among other things, were getting in the way of Botswana's efforts to continue preparing for the 4IR through education. Oke and Fernandes (2020) carried out a comparable study in which they looked at how the education sector perceived the 4IR. The results showed that the education sector was unprepared for the 4IR, particularly in Africa. Alakrash and Razak (2020) conducted research on English language teachers' readiness to apply technology to 4IR demands. The findings indicated that English language teachers were not prepared to use technology in their instruction of the language.

In the South African context, the education system has largely been dependent on traditional classroom learning from the colonial era (Mgqwashu 2017). According to Chen Kinshuk (2005), education, particularly in a South African context, consists of daily attendance of classes, with a teaching and learning process that focuses on the accessibility and availability of the learning materials. However, the rapid proliferation of internet-based learning, catalysed by the COVID-19 pandemic outbreak (Mpungose 2020), expedited the South African education system's migration from mainly traditional classroom reading to largely include online reading. These occurrences resulted in the transformation of teaching and learning in the South African education system from traditional classroom reading to online reading or a hybrid thereof. Although the migration or shift from traditional classroom to online reading heightened during the pandemic, a hybrid mode of reading has remained and, currently, learners are still required to do some form of online reading in many schools. This may have widened the gap between rural and urban schools, as learners in many rural areas may not have the opportunity to use digital devices for online reading of longer texts.

Unfortunately, the majority of the less privileged learners in South Africa are from 'under-resourced and underdeveloped socio-economic backgrounds' where digital technology is unevenly distributed or inaccessible (Kajee & Balfour 2011:185). Thus, the digital divide in developing countries, such as South Africa, remains a conundrum and, as a result, many learners demonstrate limited motivation towards reading (Organisation for Economic Co-operation and Development / United Nations Educational, Scientific and Cultural Organisation 2000) in both reading environments. Furthermore, McQuillan and Au (2001) argue that research has neglected the 'ecology' of reading literacy based on learners' access to reading materials and the associated reading motivation within schools and classrooms, irrespective of whether it is in the traditional classroom context or through online reading platforms. In addition, there appears to be a lack of research for understanding how physical environments (that is, the traditional classroom and the online platforms) affect reading literacy learning; hence, the study reported on in this article sought to investigate learners' access to reading materials and their reading motivation with specific reference to traditional classroom reading and online reading platforms.

As mentioned above, many researchers have shared their work on teaching and learning in different ways since traditional educational practices were replaced by online learning, and the authors of this article thought it necessary to contribute to the body of knowledge with regard to learners' preference between traditional classroom reading and online reading.

In pursuit of establishing the relationship between learners' access to reading materials and their motivation to read in the traditional classroom context and on online platforms, the study was informed by the following research questions:

- What is the relationship between Grade 8 English FAL learners' access to reading materials and their motivation to read in a traditional classroom?
- What is the relationship between Grade 8 English FAL learners' access to reading materials and their motivation to read in an online classroom?
- How do Grade 8 English FAL learners' access to reading materials and their motivation to read in a traditional classroom compare to their online reading?

Literature review
Traditional classroom versus online reading environments

Researchers Liu and Long (2014) and Nikoubakht and Kiamanesh (2019) argue that traditional classrooms that facilitate face-to-face learning are an educational cornerstone. These types of demarcated learning environments, according to Jansen (2004), grant learners access to reading materials such as textbooks. The benefits of traditional classrooms, such as face-to-face real-time contact, adhering to scheduled lesson times, prompt feedback to learners (Waghid 2018), and physical access to reading materials, foster the impression that they will always have a place in the global education platform (Mpungose 2020:2). Li et al. (2014) argue that traditional classrooms will continue to offer benefits that arguably cannot be attained in any other manner, particularly because of the disparities in socio-economic levels within South Africa. To put this differently, traditional classrooms can provide a reading experience that considers South Africa's unique socio-economic challenges and realities, while also meeting the diverse needs of learners from various backgrounds, ensuring that reading remains accessible for all, despite the country's socio-economic disparities.

In addition, traditional classroom reading often focuses more on the reading materials than on the reading skills. It is for this reason that Li et al. (2014) opine that traditional classrooms do not promote the practice of independent reading but rather inspire rote learning. In a traditional classroom setting, the instructor orally presents a comprehension text to the learners, facilitates a collective reading, and then leads a discussion about the associated questions, providing guidance on formulating responses (Fielding & Pearson 1994). In other words, the traditional

classroom does not encourage learners to engage in text comprehension independently. Differently put, traditional classrooms may fall short of adequately developing learners' reading skills and nurturing their reading motivation due to a variety of factors. For starters, a one-size-fits-all approach may bore or overwhelm learners with varying reading skills, resulting in decreased motivation to engage with texts (Guthrie & Davis 2003). Second, texts that are both diverse and engaging are scarce. Furthermore, teachers typically dictate reading materials and assignments in traditional classroom settings, leaving learners with few options (Deci & Ryan 2000). In addition to these difficulties, there are significant assessment pressures, with a focus on standardised testing and grades, rather than reading for pleasure and comprehension (Ryan & Deci 2017). Traditional teaching methods may also overlook the effective use of reading strategies and comprehension skills (National Reading Panel 2000). Learners who struggle with comprehension may lose motivation because of poor instruction, and consequently reading becomes a frustrating experience. Addressing these issues is critical for instilling in learners a love of reading and intrinsic motivation, especially as technology advances, and online reading becomes more accessible.

Online reading is defined by Mpungose (2020:2) as the use of educational technologies that provide access to teaching and learning materials over the internet. Modern technologies such as '[h]ardware resources (computers, laptops, mobile phones and others) and software resources (learning management systems, software applications, social media sites and others)' make online reading a reality (Khoza 2019). In the context of this article an online classroom refers to a virtual learning environment where teaching and learning activities take place over the internet. It involves the use of various digital tools and platforms to facilitate interactions between instructors and learners, deliver course materials, conduct lectures, discussions, and assessments, and foster collaborative learning. In other words, the migration of reading practices from the traditional classroom to online makes it less space and time constricted. Moreover, researchers (Clement 2020; Dlamini & Nkambule 2019; Manca 2020) posit that reading materials are easily accessible using technology devices such as computers, laptops and smartphones, and this simplifies the practice of reading for learners. However, to reiterate, the digital divide in developing countries such as South Africa remains a conundrum. This is due to limited access to the internet, economic implications, a lack of interest and limited digital skills (Van Deursen & Van Dijk 2019). Many learners demonstrate limited motivation in reading (Organisation for Economic Co-operation and Development / United Nations Educational, Scientific and Cultural Organisation 2000) in both reading environments. According to Baeten et al. (2010), this is because online reading has its advantages and disadvantages when compared to traditional classroom reading, which also has its advantages and disadvantages.

Reading motivation: The concept

Reading motivation has been defined as a person's reasons for reading (Conradi et al. 2014; Schiefele et al. 2012), which aligns with Mwamwenda's (2004) explanation that 'motivation' is a concept that explains the behaviour of an organism or person. Similarly, Gouws, Kruger and Burger (2008:71) define 'motivation' as the needs, objectives and aspirations that drive an individual to act. Motivation is driven by goals; hence, according to Tuckman and Monetti (2011:389), a goal is a component of motivation. For this reason, Schiefele et al. (2012) and Conradi et al. (2014) refer to motivation in reading as a person's own purpose, idea and desire for the reading action or outcome (Guthrie & Wigfield 2000). When a learner reads a book, they either read for academic or non-academic objectives, exhibiting goal-directed behaviour. Having a reading goal might help a learner transition from not reading to developing healthy reading habits and optimistic reading attitudes. Put differently, learners might be inspired to read, for instance, if they have a personal interest in the subject. In contrast, the learner's drive to read could come from outside motivations like the need to obtain good grades in school. Reading motivation in the context of this study refers to the development of conditions that promote the intention to read (Mathewson 1994). When learners read books, their desire to accomplish a goal – like high reading proficiency for academic and non-academic goals and self-actualisation – drives their reading behaviour. In conclusion, needs, goals and desires are components of motivation that can spur individuals to read and learn, and when the success of that effort is experienced, there will be a desire to do it even more, which will lead to the development of a positive reading habit. However, without motivation, reading to learn may not occur frequently and successfully (Caldwell 2008).

According to Unrau and Schlackman (2006) and Schiefele et al. (2012), reading motivation can generally be divided into two theoretically separate categories: intrinsic and extrinsic reading motivation (Deci & Ryan 2000). Intrinsic reading motivation, as mentioned by Schiefele et al. and Schaffner, Schiefele and Ulferts (2013), refers to the willingness to read because reading is thought to be interesting or pleasant. In other words, this kind of motivation arises from a person's intrinsic drive to pursue a certain action or topic in order to satisfy that desire (Unrau & Schlackman 2006). Extrinsically motivated reading, in contrast, is motivated by expected outcomes, such as obtaining good results or averting negative ones (Wigfield & Guthrie 1997). The main sources of motivation, according to Woolfolk (2007:377), are intrinsic and extrinsic. According to Reeve (2005:134), intrinsic motivation develops spontaneously from intrinsic goals, psychological needs, personal curiosities and innate strivings for growth. Therefore, it seems that intrinsic motivation emerges naturally within settings that regard these factors as favourable and within cultures that hold them in high esteem. These aspirations may be less common in environments marked by decreased security and stability. In contrast, extrinsically motivated people need to be impelled to act or

perform an action. Extrinsic motivation occurs after a request to perform and the enticement of a reward for that performance (Reeve 2005:134). Therefore, extrinsically motivated individuals demonstrate no enthusiasm and must continually be encouraged to act. In the context of this study, an extrinsically motivated learner needs continuous encouragement and support to participate in the act of reading. Extrinsically motivated learners will usually respond to the instruction to read (Reeve 2005:30) and not the inner desire to do so. Put differently, a learner may possess the skill of reading but may not engage in that skill until they are extrinsically motivated to do so. Extrinsic motivation is highly recommended in the Foundation Phase, where learners are supported and encouraged in their reading and enticed to do so. For instance, the teacher may reward reading with praise or a star in the learner's book, while the parents may commend the learner in a different way. Accordingly, when there is no reward, motivation is absent and the act of reading ceases. Ormrod (2008:385) confirms this sequence of learning events, relating that extrinsically motivated learners want to get rewards, good grades, money or recognition for the activity in which they participate. As the learner progresses from primary school to high school, extrinsic motivation should gradually develop into intrinsic motivation. However, in reality, the opposite is observed. According to Guthrie (2001:3), the motivation for reading decreases as children go through school because learners develop an inferiority complex as they continuously compare themselves with their classmates. In addition, unhealthy competition, social comparison between learners and lack of interest in a topic can lead to a decline in self-belief and, therefore, a decline in intrinsic motivation and, consequently, in reading.

When learners transfer from primary school to high school, it is presumed that they possess intrinsic motivation because the innate ability to appreciate the value of learning (which includes the practice of reading) and the desire to achieve success in their school career should be present. They are thus self-motivated to learn, progress and achieve their personal and academic goals, which in turn stimulates them to accomplish even more in the future. O'Donnell, Reeve and Smith (2005:153) proclaim that learners who are goal orientated usually perform better than learners without goals do, because intrinsically motivated learners believe in themselves.

Since every individual is unique in various aspects, learners are unique in their reading practices and, as such, they are uniquely motivated. Unfortunately, not all high school learners are intrinsically motivated, and not all are extrinsically motivated. Thus, motivation, which is conceptualised in this article as a source of force that maintains, directs and sustains reading behaviour towards a goal and can be either intrinsic (when a learner reads for internal satisfaction and development) or extrinsic (when a learner reads on instruction), needs to be developed. Considering that internally motivated readers read 'because

of personal interest and desire to learn, relax, escape, or empathise' (Block 2003:82), interests should be attended to in developing their reading motivation. For this reason, Pachtman and Wilson (2006) suggest that learners should have access to the kinds of reading materials they desire to read, in order to be motivated to read. In other words, learners would likely be more motivated to read if they could access and choose their reading materials.

Access to reading materials

The term 'access to reading materials' in this study refers to having access to printed materials through school and classroom libraries or to online reading materials through electronic resources. As opined by McQuillan and Au (2001:225), increased access to reading materials may have an independent, causal role in increasing learners' motivation to engage in reading activities. Furthermore, Pretorius (2002) indicates that access to reading materials and the regular practice of reading improves reading ability. Thus, access to reading materials plays an important role in developing reading ability. The UK Education Standards Research Team (2012) points out that having access to reading materials (whether in a traditional or online context) has an impact on learners' reading practices. Brindley (1991) reports that the READ Educational Trust, which donates books to schools, investigated English L2 learners' reading preferences. The study used 100 popular titles, of which all the books tested had a message value and were listed in READ's 'Top Twenty' reading cards for Grades 8 to 11. Findings from this investigation showed that a considerable number of learners were keen to read, provided that they had access to reading materials such as enjoyable storybooks written in straightforward language and which were of interest to them.

The importance of reading and access to reading materials is acknowledged by the South African Department of Education, as evidenced by the country's participation in the Progress in International Reading Literacy Study (PIRLS 2006, 2011, 2016). However, the reports from these studies have shown low reading literacy achievement among learners in South Africa. Even before the PIRLS, Pretorius and Machet (2004:47) reported that South African primary and secondary school learners have underdeveloped reading skills. This trend is also evident at the tertiary level, as reported by Boakye (2017). Furthermore, the National Education and Evaluation Development Unit (2013) found that in most traditional school classrooms, very few reading books are available to learners, which influences learners' access to reading materials, compounding the poor reading performance of South African learners.

Limited access to reading materials (whether in the traditional or online platform context) is known to be a powerful constraint on a proposed activity (Wilson 1987), in this case reading. Without access to reading materials, learners have less opportunity to read and to increase their

motivation to read (Neuman & Celano 2001), regardless of whether it is in the traditional classroom context or an online reading context.

Thus, whether reading literacy is being practised in the traditional setting or on an online platform, it will continue to be a primary focus of study in language classrooms. In the context of township schools, which constitute the research sites of this study, English FAL learners position themselves according to the dynamics and divisions within the social fabric of the school environment (Kapp 2004). To clarify, reading remains an important aspect of language education in township-based schools that prioritise traditional teaching methods. However, it appears that within the context of certain township schools, such as those investigated in the study, English FAL learners' positioning is influenced by social dynamics. According to Kapp (2004), the locational positioning of township schools exacerbates the difficulty and unevenness of English learning, such as how English FAL reading is practiced and how social conditions, such as access to reading materials, affect learners' motivation to read. Considering that this study was conducted within the parameter of township-based high schools, where the multifaceted socio-economic issue of education is prevalent, the solutions are neither clear nor easy. Therefore, the purpose of this study was to investigate the relationship between Grade 8 English FAL learners' motivation for reading and their access to reading materials in the traditional classroom compared to online reading platforms. Specifically, the study sought to establish whether the Grade 8 English FAL learners from six high schools in two South African townships' motivation to read was influenced by their access to reading materials.

Several studies suggest that access to reading materials is likely to increase learners' motivation to read. Hence the 'faucet theory' (Entwisle, Alexander & Olson 2000) and Mathewson's (1994) Model of Attitude Influence upon Reading and Learning to Read were found suitable as theoretical frameworks for this study. The faucet theory suggests that if access to educational resources such as reading materials is 'turned on', learners will be motivated to read. Subsequently, learning gains made during the school year are remarkably similar for learners from different social and economic backgrounds, regardless of whether it is in the traditional reading context or on the online reading platforms. However, when reading materials are inaccessible, the reading material resource faucet is 'turned off', and learners will not be motivated to read, resulting in inequalities in educational opportunities and outcomes (Entwisle et al. 2000). In support of the faucet theory, Mathewson's (1994) Model of Attitude Influence upon Reading and Learning to Read explains that readers' whole attitude towards reading, such as prevailing feelings, evaluative beliefs about reading and action readiness for reading, will influence their intention to read and, in turn, their reading motivation. Moreover, Gambrell (2011:172) points out that when learners have a variety of reading materials available to them, they are more motivated to read. The current study investigated this assertion for both online and classroom contexts.

Research methods and design
Research approach and design

A quantitative approach guided by a non-experimental correlation research design was used to determine and indicate patterns as per the questionnaire-obtained data and to indicate the spread of data, such as the mean and standard deviation (Creswell 2014:3). The advantage of choosing this design is that it assisted the researchers in establishing and statistically measuring the degree of the correlation between learners' access to reading materials and their motivation to read in an attempt to answer the research questions.

Respondents

The non-probability purposively selected sample for the survey questionnaire consisted of 466 Grade 8 English FAL learners from six similar-sized high schools in townships in the Eastern Cape and Gauteng in South Africa. Three of these schools, those in the Eastern Cape, predominantly used traditional classroom reading as teaching and learning methods, whereas the other three schools in Gauteng had migrated to hybrid mode, which predominantly uses online reading practices. The number of learners accommodated by each class at the schools that used traditional classroom reading was 68, 90 and 70 learners. The classrooms of the schools that practised online reading accommodated 78, 84 learners and 76 learners.

Instrumentation and data analysis

After obtaining parental consent and the learners' assent to participate, a survey questionnaire consisting of a Likert scale measuring question statements was administered to the learners. In the context of this article an online classroom refers to a learning environment where teaching and learning activities predominantly take place over the internet.

The four sections of the questionnaire were:

- Learners' access to reading materials in a traditional classroom
- Learners' access to reading materials in an online classroom
- Learners' motivation to read in a traditional classroom
- Learners' motivation to read in an online classroom

Descriptive analysis interpretation was used to present the findings extracted from the questionnaire. The questionnaire-obtained data were analysed using the SPSS data analysis program. The focus of the data analysis was on describing and understanding whether learners had access to reading materials and how their level of motivation to read in the traditional classroom differed from the online classroom environment.

Ethical considerations

Ethical clearance to conduct this study was obtained from the Tshwane University of Technology Faculty Committee for Research Ethics – Humanities (FCRE-HUM) (No. FCRE/APL/STD/2017/20).

Findings and discussion

The following are the findings of the data solicited through a questionnaire to 466 respondents. The questions in Table 1 sought to establish the learners' access to reading materials in a traditional classroom.

Out of a sample group of 466, an accumulative 83.5% (47.9% + 20.5% + 15.1%) of learners indicated that they *sometimes* to *always* had access to reading schoolbooks with the second highest average score of 3.32 and a standard deviation (SD) variation value of 1.01. Learners scored magazines as the third highest (3.06) materials to which they had access, with a SD value of 1.15, and 9.6% of the learners indicated that they *always* had access to magazines, as opposed to the 20.5% of learners who indicated that they *never* had access to newspapers. Similarly, 26.0% of learners reported that they *never* had access to novels. However, in a traditional classroom context, 30.1% indicated that they *always* had access to internet reading, which coincides with the 30.1% of learners who indicated that they *sometimes* had access to internet reading. In other words, even in a traditional classroom setting in which print materials are used, most learners also had access to internet reading materials, which produced a mean score of 3.60 (SD = 1.21), followed by access to schoolbooks with a mean score of 3.32 (SD = 1.15). The three lowest access value means were produced by magazines, newspapers, and novels, which produced averages scores of 3.06, 2.20 and 2.57.

The questions in Table 2 sought to establish the learners' access to online reading materials.

Although learners indicated that even in the traditional classroom context, many of them *always* had access to internet reading platforms, in the online reading context, 57.9% of learners indicated that they *never* had access to online English schoolbooks. Over half of the responses that they *never* had access to online schoolbooks may stem from a lack of knowledge on how to locate the books rather than where to locate them or limited accessibility. Indirectly, this highlights the crucial role of digital literacy in learners' lives, which could be ignored when it comes to access issues. In other words, learners may believe they lack access to resources, but the issue is actually a lack of necessary digital skills or how to locate these resources. Similarly, 55.4% of the respondents reported that they *never* had access to online English magazines. This raises the question, what do learners read in an online reading environment context?

In South African townships and rural regions, it appears that learners often hold novels or, in their case, storybooks in high regard when these books mirror their distinctive culture, life experiences, and personal identities. Considering this reason within the online reading context, a quarter of the learners indicated that they *always* had access to news (25.6%) and novels (25.4%) on their phones. In the traditional classroom context, learners indicated that they *never* had access to newspapers (20.5%) or novels (26%). Yet, novels are prescribed in the school curriculum and these books are selected to meet educational objectives and are often recognised as essential reading literature for high school learners. (Department of Basic Education, South Africa 2021). One might argue that these responses from these learners are influenced by the challenges that learners in township-based schools face due to their socio-economic background. However, this assertion can be disputed as despite the potential cost of accessing online reading platforms, these learners have shown that they read news, novels, and prescribed literature online.

TABLE 1: Traditional classroom reading material access (*N* = 466).

I have access to these reading materials	%					Mean	Standard deviation
	Never	Hardly ever	Sometimes	Most of the time	Always		
Schoolbooks	4.1	11.0	47.9	20.5	15.1	3.32	1.01
Magazines	13.7	9.6	41.1	23.3	9.6	3.06	1.15
Newspapers	20.5	13.7	38.5	13.7	11.0	2.80	1.25
Novels	26.0	13.7	31.5	21.9	1.4	2.57	1.17
Internet	5.5	11.0	30.1	19.2	30.1	3.60	1.21

Source: Adapted from Olifant, F.M., Rautenbach, E. & Cekiso, M.P., 2017, 'Reading habits and attitudes of grades 8–10 learners toward English second language in Eersterust', *Journal for Language Teaching* 51(2), 35–57. https://doi.org/10.4314/jlt.v51i2.2

TABLE 2: Online reading material access (*N* = 466).

I have access to these English online reading materials	%				Mean	Standard deviation
	Never	Hardly ever	Most of the time	Always		
Online schoolbooks	57.9	17.8	18.4	5.9	1.72	0.96
Online magazines	55.4	21.1	20.8	2.6	1.71	0.87
Online news	19.9	17.6	36.9	25.6	2.68	1.06
Online novels	18.5	13.2	42.9	25.4	2.75	1.03
Online chat messages	1.7	2.0	7.3	89.1	3.84	0.53
Online Instagram post	29.0	8.6	18.2	44.2	2.78	1.29

Source: Adapted from Olifant, F.M., Rautenbach, E. & Cekiso, M.P., 2017, 'Reading habits and attitudes of grades 8–10 learners toward English second language in Eersterust', *Journal for Language Teaching* 51(2), 35–57. https://doi.org/10.4314/jlt.v51i2.2

This information is in line with the findings of researchers like Clement (2020), Dlamini & Nkambule (2019), and Manca (2020), who argue that modern technology has made reading materials more accessible to learners.

Although 29% of learners said that they *never* had access to Instagram posts, a greater number of learners (44.2%) stated that they always had access to Instagram posts, which scored an average value of 2.78 and a standard deviation of 1.29. Learners rated online Instagram posts as the reading materials that they accessed the second most after chat messages. Online chat messages produced the highest average score of 3.84, with 89% of the respondents indicating that they *always* had access to online text messages. However online chat messages do not present or promote a high level of reading development or reading ability and may not be hailed as positive results in the educational context. The fact that more than half of the learners (57.9%) communicated that they *never* accessed their schoolbook in the online classroom, even though it is easily accessible (Clement 2020; Dlamini & Nkambule 2019; Manca 2020), may indirectly allude to a deeper problem, such as poor reading ability.

These six items produced mean scores of between 1.71 (recorded for access to online magazines, which is the least accessed online reading material) and 3.84 (recorded for access to online chat messages, which are the materials that learners said they read the most).

The questions in Table 3 sought to establish learners' motivation to read in a traditional classroom.

More than half of the learners (60.3%) indicated that they found reading difficult, whereas almost half (43.8%) said they *never* felt anxious when they read.

Only 16.4% indicated that they were motivated to visit the library, whereas 34.2% indicated that they enjoyed reading out loud in the classroom, indicating their motivation to read.

A majority of the learners (72.6%) reported that they thought English reading was important, while 76.7% indicated that being able to read English was important to them.

However, 72.6% of learners noted that they *sometimes* came across many words they did not understand when they read.

The questions in Table 4 sought to establish the learners' motivation to read in an online classroom.

Less than a quarter of the learners (22.4%) stated that they *always* did online reading for school purposes, yet more learners (28.7%) indicated that they *never* did online reading for school purposes. On the other hand, 68.1% of learners reported that they *always* engaged in online reading to gain knowledge. Although 53.9% of the learners indicated that they *always* engaged in online reading because they enjoyed it, 53.3% stated that they always participated in online reading because it was important to them. Thus, it is understandable that the majority of participating learners (79.3%) stated that they *never* disliked online reading, indirectly implying that they were motivated to do online reading.

A comparison of how motivated learners are to read in the traditional classroom compared to the online classroom

Although there is a close relationship between access to reading materials and motivation to read, the purpose of this study was to determine whether learners in a traditional classroom were more motivated to read than those in an online classroom or vice versa. This comparison is displayed in Table 5.

TABLE 3: Learners' motivation to read in a traditional classroom (*N* = 466).

Item	%			Mean	Standard deviation
	Always	Sometimes	Never		
I find English reading difficult.	12.3	60.3	26.0	2.14	0.61
I feel anxious when I read English.	16.4	39.7	43.8	2.27	0.73
I like visiting the library.	16.4	47.9	35.6	2.19	0.70
I enjoy reading out loud in class.	34.2	31.5	34.2	2.00	0.83
I think that learning English is important in life.	72.6	11.0	15.1	1.42	0.74
Being able to read English is important to me.	76.7	12.3	9.6	1.32	0.65
I feel that other learners can read better than I do.	13.7	57.5	27.4	1.86	0.64
I am afraid other learners will laugh at me when I read out loud in class.	27.4	32.9	39.7	1.88	0.87
When I read, there are many words that I cannot understand.	19.2	72.6	8.2	2.11	0.52

TABLE 4: Learners' motivation to read in an online classroom (*N* = 466).

Item	%				Mean	Standard deviation
	Never	Hardly ever	Most of the time	Always		
I do online English reading for school purposes only.	28.7	14.9	33.9	22.4	2.52	1.140
I do online English reading because it increases my knowledge.	4.3	3.0	24.7	68.1	3.59	0.729
I do online English reading because I enjoy it.	6.6	8.6	30.9	53.9	3.33	0.876
I do online English reading because it is important to me.	7.9	5.3	33.6	53.3	3.34	0.891
I do online English reading outside of school.	12.8	12.5	41.8	32.9	2.99	0.961
I would rather do something else than online reading.	50.8	20.8	16.8	11.6	1.89	1.075
I do not like online reading.	79.3	7.6	7.6	5.6	1.39	0.850

TABLE 5: Comparison between motivations to read in the traditional classroom and the online classroom.

Learner's motivation to read	Minimum	Maximum	Mean	Standard deviation
In the traditional classroom	44.4	85.19	61.66	10.37
In the online classroom	34.38	100.00	83.82	11.84

Table 5 reflects that learners' motivation to read in the traditional classroom produced a mean score of 61.66 with a SD of 10.37. On the other hand, learners' motivation to read in the online classroom produced a higher average score of 83.82 and a corresponding higher SD value of 11.84. Considering these figures, learners in the online classroom reflected a higher motivation to read than those in the traditional classroom setting.

Baker, Scher and Mackler (1997:70) maintain that the terms 'motivation', 'attitude' and 'interest' are used interchangeably by researchers studying the phenomenon of reading. Gouws et al. (2008:71) explain that the term 'motivation' refers to the needs, goals and desires that spur an individual to act – in the context of this study, the act of reading.

In the traditional classroom, learners have access to a variety of print reading materials; however, a majority (83.5%) of learners indicated that they *sometimes* to *very often* had access to schoolbooks. This result produced a startling revelation because learners devoted significant time to reading in order to excel academically in the traditional classroom. Yet, a different story is unfolding in the realm of online learning, where a staggering more than half of the learners said that they *never* accessed online schoolbooks, despite having a wealth of reading opportunities at their disposal. Purchasing data to access online schoolbooks entails financial expenditure, which might be the reason why more than half of the learners did not access online schoolbooks. Another reason could be that learners may lack the interest or desire to access online schoolbooks, or do not know how or where to access these resources, with motivation being a critical factor in how effectively learners engage with digital educational resources (Deci & Ryan 2000).

In both learning environments, learners indicated that they did have access to various learning materials. The findings of this study disclosed that learners in both the traditional and online classrooms demonstrated that they are motivated to engage in reading in English. In the traditional classroom, the majority of the learners indicated that they were motivated to read, saying that being able to read English was *always* important.

Similar to the traditional classrooms, more than half of the learners in the online classrooms said that they *always* did English online reading because it was important to them and they enjoyed it. However, contrary to the online classrooms, learners in the traditional classroom environment indicated a lower level of motivation, which might be because they had limited access to schoolbooks. Considering the comparison between the learners' motivation to read and their access to reading materials in the traditional classrooms and the online classrooms in this study, it appears that learners are more motivated to access English reading materials online than in the traditional classroom context.

Conclusion

A new approach to reading is required for the rethinking of literacy pedagogy in the context of the 4IR. It is possible that the COVID-19 pandemic has accelerated the transition from traditional classroom reading to online reading. Over the years, traditional classrooms have been believed to offer benefits such as physical access to reading materials (e.g. textbooks; Jansen 2004), face-to-face real-time contact, adherence to scheduled lesson times, and prompt feedback to learners (Waghid 2018), which fostered the impression that traditional classrooms still have a place on the global education platform (Mpungose 2020:2). However, the evolution of 4IR technology-based learning platforms and the migration of reading practices from the traditional classroom to the online environment has made reading more accessible and less space and time constricted. Moreover, researchers (Clement 2020; Dlamini & Nkambule 2019; Manca 2020) posit that reading materials are easily accessible using technology devices such as computers, laptops and smartphones, simplifying the practice of reading for learners. Concurring with these researchers, this study established that there is a positive correlation between learners' access to reading materials and their motivation to read in both environments. However, when compared to traditional reading practices, learners who have access to online reading platforms have a higher positive correlation of motivation to read. This disparity in correlation may be attributed to the constant evolution of technology, which excites learners and increases their motivation to read.

Recommendations

Since learners are more motivated to read online than in the traditional classroom as they have access to reading materials anywhere and at any time, it is recommended that the South African government, specifically the Department of Education, endeavour to:

- Increase the number of free Wi-Fi hotspots in communities, specifically in remote areas, so that learners can visit these areas and use their mobile phones to access online reading classrooms and materials.
- Develop an online classroom curriculum that provides teachers with pedagogies and reading-strategy training suitable for the online classroom environment, which could assist learners in becoming more motivated to invest more time in the online reading of schooling materials.

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Authors' contributions

F.M.O., M.P.C. and N.B. contributed equally to this manuscript.

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Data availability

All data supporting the results are included in the manuscript.

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