The Use of Technology in African Language Pedagogy – A Sociological Approach

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ABSTRACT

Technology has brought about new knowledge forms in all aspects of human life. The new forms of knowledge have transformed not only human lives but also human ways of doing things. Education has also benefited from technological transformation which is witnessed through the delivery of teaching and reception of learning with technology. The use of technology in teaching has been a fundamental theme in the 21st century as the world tends towards the fourth industrial revolution. Using Bourdieu's social theory, this paper seeks to gain an understanding of how the use of technology is impacted by the social context of language lecturers. This study aimed to investigate how language lecturers' social context influences their use of technology in teaching African languages. To pursue the above aim, an in-depth interview was conducted with 8 language lecturers across 3 universities in KwaZulu-Natal using stratified and snowball sampling methods. This study analyses lecturers' social context regarding technology use in teaching. It also examines the value lecturers place on technology for teaching African languages. Finally, it provides recommendations for lecturers and stakeholders to effectively implement technology for teaching African languages within the social context of language lecturers.

KEYWORDS

Technology; language teaching and learning; African languages; social context; Bourdieu

INTRODUCTION

Technology has become deeply embedded into society, fundamentally transforming how we live, work, interact and access information. Education has not been immune to these rapid technological changes. The influx of digital tools, online resources and emerging technologies is reshaping teaching and learning across disciplines (Keengwe, 2017; Nagel *et al*., 2023). This is evidenced by the rise of technology-enhanced teaching and learning, the adoption of learning management systems, the integration of multimedia resources, and the utilisation of mobile apps for educational purposes. However, effective integration of technology ultimately depends on teachers embracing these tools and leveraging them successfully to advance student learning.

Teachers do not make decisions about technology adoption in a vacuum. Rather, their practices are situated within complex social contexts that shape access to resources, attitudes toward technology, and pedagogical beliefs (Vidal-Hall, 2020; Sackstein *et al*., 2023). Applying sociological theory to examine how teachers' technology use articulates with their socio-cultural locations provides valuable insight. Pierre Bourdieu's key concepts of habitus, capital and field offer a useful framework for analysing how social factors influence teachers' technology dispositions and practices (Grenfell, 2014). Habitus consists of internalised habits, behaviours, tastes and dispositions rooted in one's social position and early experiences. Capital denotes resources and assets mobilized to gain advantage, including economic, cultural, social and symbolic forms. The field represents competitive social spaces with their own rules, stakes and hierarchies. Using this interrelated thinking lens sheds light on how teachers' technology integration is socially shaped rather than solely a matter of individual choice (Greene & Jones, 2020).

This study explored technology use in African language teaching through Bourdieu's sociological lens. The study was in South Africa, a multilingual country with 12 official languages including isiZulu, isiXhosa, Sepedi, Setswana, South African Sign Language and other indigenous languages. Promoting African language education has been an important priority since the transition to democracy in 1994 and is argued to be crucial for promoting equity, and identity and redressing past injustices that marginalised the use of these languages (Maringe & Osman, 2022; Mzangwa, 2019). Recently the Department of Basic Education (2013) has emphasised the need to harness technologies to strengthen the teaching and status of African languages, enabling them to thrive in the 21st century. However, research indicates uneven technology adoption among language teachers (Maphalala and Adigun, 2021; Tikly, 2019).

The study aims to answer the following research questions: (i) What are lecturers' attitudes, experiences and practices regarding technology integration? (ii) How do habitus, capital and field position shape their technology dispositions? (iii) What socio-cultural factors enable or constrain their technology adoption? Answering these questions will provide insight into how lecturers' technology practices articulate with their contexts, illuminating opportunities and challenges of integrating technology into African language instruction.

Situated in the South African context during a time of growing educational technologies, this study makes several important contributions. First, it extends the limited application of Bourdieu's sociological ideas to illuminate how language teachers' technology dispositions and practices are socially shaped. Second, it provides much-needed empirical insight into university lecturers' perspectives on harnessing technology tools for African language teaching, helping address the paucity of research in this area. Finally, the findings will inform efforts to promote judicious technology integration responsive to lecturers' needs, beliefs, and social realities.

Technology and Language Teaching in Higher Education

The rise of technology in education has sparked debate on its role in advancing or inhibiting pedagogy and equity. This review critically examines research on technology use in African language teaching and learning, considering wider contexts to understand challenges and opportunities. While the adoption of classroom technology has grown, meaningful integration into teaching and learning remains contested (Adedokun, 2024; Howard *et al*., 2015). This study argues that simply providing tools is insufficient for impactful technology integration. Teachers require ongoing professional development and organisational support to transform pedagogical paradigms. Proponents of technology integration highlight increased student engagement through interactive multimedia learning, flexible timing and locations for learning, and expanded informational resources beyond textbooks (Buchanan, 2018; Golonka *et al*., 2014). These studies found that thoughtfully designed educational technology can increase student motivation and access to lesson content. However, critics argue that technology often replicates teacher-centric pedagogy while amplifying equity gaps in student technology access and use (Philipsen *et al*., 2019; Warschauer, 2004). These studies found that ingrained instructional practices persist alongside digital divides between student demographics.

Rather than an inherent instructional good, technology manifests existing ideals, relationships, and biases in a learning ecosystem (Selwyn, 2016). This sociocultural view suggests that technology shapes and is shaped by the surrounding educational context. Meaningful integration requires fostering new social configurations and pedagogies aligned with equity (Tamburini, 2020). This study argues that technology should rather catalyse new participatory and collaborative instructional models. Teachers are central to leveraging technology to enrich learning; however, many lack sufficient training, support, and incentives to shift from teacher-centric paradigms (Ertmer, 2005; Tamariz, 2020). Ertmer (2005) and Tamariz (2020) found that external barriers such as lack of professional development, coaching, and career rewards hinder teachers in reforming practice. There are also concerns that technology could de-professionalize teaching by displacing teachers' cultivation of rich social relationships and knowledge construction with students (Ferneding, 2003). This philosophical critique suggests an overemphasis on teaching and learning with technology could undermine the socio-emotional dimensions of learning. In summary, equitable technology integration requires systemic changes to provide teachers with ongoing learning, communities of practice, design resources, and career incentives to transform pedagogy around emerging technologies

in ways that amplify student agency, identity, and capacities. This indicates that organisational change is key to empowering teachers to leverage technology as a force for equity and social justice.

South African indigenous languages during the Apartheid era witnessed underdevelopment through policies that focused on entrenching English and Afrikaans (Docrat, 2022; Radebe, 2023). However, the new constitution recognises 12 official languages to promote pluralism and redress. Despite the pronouncement of the new constitution for equal development of all 12 recognised official languages, colonial legacies persist resulting in unequal status and access to resources for the indigenous languages. Stakeholders contend that the promotion of South African Indigenous languages is vital for decolonisation, identity and social justice in South Africa's multilingual society (Heugh and Stroud, 2020; Ndhlovu and Makalela, 2021; Ngubane and Makua, 2021). To strengthen South African indigenous language teaching, there should be policies in place to promote technologies such as machine translators, mobile platforms, online course materials and digital content creation (African Union, 2020; Makalela and White, 2021). This indicates that while technology integration modernises language pedagogy and increases visibility, policies outpacing conditions on the ground risk widening aspirations-realities gaps. Nevertheless, uneven distribution in teacher adoption remains influenced by training gaps, attitudes, infrastructure and support limitations. Instead of inherently empowering, technology often mirrors existing disparities as critical perspectives reveal how integration initiatives could either enhance equity or unintentionally exacerbate the disparities.

Teachers do not adopt technology in isolation, instead, their practices are intricately shaped by a web of institutional, cultural, and interpersonal factors (LaFrance, 2019; Qahl, 2022). Drawing on Pierre Bourdieu's sociological concepts, such as habitus, which represents internalised tendencies shaped by one's position, capital, encompassing cultural, social, and economic assets conferring advantage, and field, signifying contexts with hierarchical social positions and norms, it becomes evident that broader contexts significantly influence technology dispositions and practices (Apps *et al*., 2019). The application of Bourdieu's lens further reveals how inequitable access to capital can impact teachers' capabilities in integrating technology, as explored by Dlamini and Dewa (2021).

Habitual tendencies and field conditions emerge as crucial factors that can either facilitate or hinder the adoption of technology. Without a keen understanding of these dynamics, technology integration runs the risk of exacerbating rather than reducing digital divides. Moreover, critical and decolonising perspectives, as highlighted in the studies of Lazem *et al*. (2021) and Sovacool *et al*. (2023), underscore how the integration of technology intersects with existing power structures and privileges in society. These perspectives emphasize that technology cannot be separated from its social context and that it has the potential to either challenge or reinforce inequities.

Despite aspirational national policies advocating technology integration in education, empirical studies that critically examine its implementation for African language teaching and learning remain limited, representing a significant knowledge gap. Policy intentions outpacing actual integration is problematic, as highlighted by Aspray and Doty (2023) since technology's potential benefits for advancing equity and decolonising methodologies can only be realized through effective on-the-ground implementation tailored to local contexts.

In primary and secondary education, research highlights a gap between positive attitudes toward technology integration and its limited adoption in the classroom. This discrepancy is attributed to insufficient training, support, resources, and large class sizes (Bayaga *et al.*, 2021; Liang, 2021). Studies have also highlighted unequal access to technology infrastructure and connectivity between affluent suburban schools and under-resourced township schools, mirroring South Africa's broader socioeconomic divides (Essack and Hindle, 2019). Rural areas face additional barriers like lack of electricity and cellular network coverage. Such infrastructure limitations intersect with social factors like teacher confidence, attitudes, and digital literacy skills to inhibit integration (Ferguson *et al.*, 2019). These digital divides mirror the legacies of inequality in the education system. More affluent formerly white-only schools have greater access to resources, connectivity, and tech-savvy staff compared to historically disadvantaged township and rural schools (Jeske, 2020). Such imbalances shape teachers' experience with technology and their capacity to innovate pedagogies. It could therefore be argued that integration efforts while ignoring these complex dynamics risk exacerbating rather than reducing digital inequality. Studies also indicate that policies are advancing faster than on-the-ground realities, thereby leaving teachers without the necessary training and support to effectively leverage technology for the advancement of multilingual education (Aspray and Doty, 2023). The available professional development for teachers seems to focus narrowly on basic digital skills rather than technology-enabled pedagogies for African languages and this is also problematic.

On the other hand, at the university level, lecturers recognise the potential benefits of technology but struggle with unreliable infrastructure access, skills gaps among both educators and students and limited quality digital content - particularly for less-resourced African languages such as isiZulu (Griesel and Bosch, 2020; Roux and Ndinga-Koumba-Binza, 2019). This indicates that digital learning materials are predominantly produced in English and Afrikaans, providing little support for African language instruction. Some scholars have suggested that multilingual Open Educational Resources (OERs) accessibility via mobile devices as a strategy to address material gaps and enhance the teaching of marginalised languages (Castillo *et al.*, 2022; Rogers, 2023). However, it has been argued that OERs do not automatically address systemic inequalities. Scholars emphasise that technology does not lead to change, but integration efforts must align with decolonising language policies and pedagogical goals (Masenya, 2021; Phyak, 2021; Shahjahan *et al.*, 2022). Other critical perspectives underscore how simple digitisation of traditional teaching methods can further entrench colonial legacies and English

dominance unless educators adopt student-centred, participatory approaches leveraging technology to affirm multilingual identities (Nesfield, 2023; Whatley, 2023).

In conclusion, existing literature reveals how complex societal and educational dynamics continue to shape the role of technology in advancing or inhibiting equity in under-resourced educational contexts in South Africa. While policies envision transformative potential, significant challenges remain regarding infrastructure, training, content, and localised support to bridge policy aspirations with on-the-ground realities. The gaps between suburban schools and disadvantaged townships and rural areas persist. Furthermore, efforts must move beyond basic digital skills to build educators' capacity for localised innovation and leverage multilingual technology-enabled pedagogies to decolonise classrooms. Addressing these multifaceted concerns will determine whether technology integration reduces or reproduces existing inequities in South Africa's multilingual education landscape.

The Sociological Context of the Use of Technology in the Teaching of African Languages

The adoption of technology in education has been a defining trend of the 21st century. As the world moves towards the fourth industrial revolution (4iR), the role of technology in teaching and learning continues to expand. This is evidenced by the proliferation of educational technologies that enable new modes of instruction and learner engagement (Bates, 2015). However, integrating technology within specific disciplinary and institutional contexts requires further research. The teaching of African languages represents one such context.

Wa Thiong'o (1986) argues that language is fundamental to culture, identity, and knowledge production. While African language instruction enables cultural grounding amidst globalisation (Wa Thiong'o, 1986), it has lagged in adopting educational technologies (Ndlovu-Gatsheni, 2021). Barriers such as insufficient resources, training, and support have constrained technology integration (Chikasanda *et al*., 2013). Bourdieu's sociological theory provides a useful framework for examining how social factors shape lecturers' technology use within the institutional and cultural context of African language teaching. His concepts of habitus, capital, and field illuminate how one's position and access to resources inform actions (Bourdieu, 1986). This study adopts Bourdieu's approach to analyse the dynamics-shaping technology use among African language lecturers.

Lecturers operate within their universities' and departments' institutional fields, which carry norms and constraints around technology use and African language instruction. For example, a university may not have dedicated IT support staff for the African languages department or provide sufficient software licenses and resources for technology-enabled language teaching. Lecturers' habitus developed through experiences within this context (Bourdieu, 2020). Another instance is a lecturer who completed their PhD at an institution where overhead projectors were the main classroom technology may not feel fully comfortable suddenly teaching via learning management systems (LMS) and video conferencing tools introduced later at a different university. In the same vein, lecturers possess various forms of capital that determine their capacity to obtain resources for technology adoption (Bourdieu,

1986). For example, a lecturer with strong networks amongst Educational Technology (EdTech) companies and alumni working in the field may successfully advocate for donated equipment and customised learning apps designed for instructions in the African language.

However, as a marginalised discipline, African language departments and lecturers often lack symbolic capital and prestige (Alexander, 2004). For instance, while business and engineering faculty may get priority for smart classroom upgrades and new lab equipment, the African languages department may be passed over year after year in funding allocations, hampering efforts to integrate technology despite lecturers' interest and expertise in using them. Bourdieu's sociological theory thus provides tools to analyse how language lecturers' technology practices relate to their position within overlapping departments, institutions, cultural fields and social hierarchies. It foregrounds how one's habitus and access to capital interact with the systems of power that structure the academic field (Naidoo, 2004). This contrasts technologically determinist perspectives that view technology adoption as an individual choice without social constraints (Oliver, 2011). As Selwyn (2016) argues, meaningful technology integration requires aligning new technologies with existing cultures and forms of symbolic power. A Bourdieusian framework can uncover these deep dynamics.

Empirical studies informed by Bourdieu's sociological theory demonstrate how social and institutional factors shape technology use in educational contexts. For instance, Aubrey-Smith and Twining (2023) found that despite adequate resourcing, teachers' technology practices aligned more closely with the schools' traditional hierarchies and values rather than the innovative potentials of new technologies. This suggests that social dynamics and institutional habitus constrain technology integration. Similarly, Howard *et al.* (2016) revealed how higher institution lecturers' technology dispositions relate to their capital, field positions and disciplinary cultures. Alignment with institutional and disciplinary norms, priorities and resources influenced technology adoption patterns. However, a rigid, traditionalist habitus also limited technology use for some lecturers despite their field status. These studies affirm Bourdieu's central premise - that objective social structures shape but do not determine practice (Mahar *et al.*, 1990). As Reay (2020) summarised for Bourdieu, neither the habitus nor the field operates independently. This indicates that the interplay between habitus and field is ongoing, and as individuals enter new fields, those fields shape their habitus, but the habitus also affects how they operate within the field. Neither concept makes sense in isolation - they are continually constituted through their relationship with each other. This indicates that lecturers' technology practices cannot be isolated from their socio-cultural contexts.

Applying Bourdieu's theory to this study elucidates how language lecturers' habitus, capital, and field positions interact with institutional cultures and limitations to influence their use of technology in the specific context of African language instruction (Adedokun *et al.,* 2024). This provides a robust framework to analyse the situated, nuanced dynamics underlying technology use, moving beyond skills-based or technologically deterministic paradigms. The

value of this approach is borne out in empirical studies of technology integration across educational contexts.

Furthermore, the rapid digital transformation brought on by the COVID-19 pandemic provides an opportune moment to examine these dynamics. As educational institutions survived COVID-19, the deep social contours shaping technology adoption came to the fore (Rapanta *et al.*, 2020). The need to integrate technology exposed disparities in access, skills and support between institutions and disciplines, disadvantaging fields like African language instruction (Aristovnik *et al.*, 2020). Bourdieu's concepts illuminate these inequities hidden within educational systems and practices.

In summary, Bourdieu's sociological theory offers a useful and widely applied framework to examine how language lecturers' contextual positions and experiences shape their technology dispositions and practices within African language teaching. It provides a multidimensional lens to analyse how broader relations of power, inequality and marginalisation manifest in this context. Bourdieu's theoretical perspectives provide a robust foundation for investigating the complex social, cultural and historical factors influencing technology integration patterns within African language education. This integrated approach moves beyond techno-centric paradigms to foreground equity and illuminate the nuances underlying technology adoption practices in marginalised disciplines such as African language teaching.

METHODOLOGY

This study employed a qualitative research design to investigate how language lecturers' social context influences their use of technology in teaching African languages. Qualitative research is ideal for understanding people's experiences and the meanings they attach to phenomena within their social contexts (Levitt, 2021). This approach enabled the researcher to gain deep insights into lecturers' perspectives and experiences regarding technology use for teaching African languages.

The participants comprise 8 language lecturers teaching African languages at 3 universities in KwaZulu-Natal, South Africa. The group consists of 4 females and 4 males, aged 23-65, with teaching experience ranging from 5 to 35 years. The study used stratified purposeful and snowball samplings to select participants. This ensures only lecturers teaching one or more African language(s) participated in the study and lecturers from various social contexts and backgrounds were included in the study. In addition, participants were recruited through emails and referrals from colleagues who meet the above criteria – teaching one or more African language(s). The study used stratified purposeful and snowball samplings to select participants. This ensures only lecturers teaching one or more African language(s) participated in the study and lecturers from various social contexts and backgrounds were included in the study. In addition, participants were recruited through emails and referrals from colleagues who meet the above criteria – teaching one or more African language(s).

The data for this study was collected through in-depth, semi-structured interviews with participants. Interviews as a data collection instrument allow participants to provide detailed accounts of their experiences and perspectives (Creswell and Creswell, 2017). The interview guide contains open-ended questions to explore lecturers' views on using technology to teach African languages, how their social contexts influence this, the challenges experienced, and recommendations for effective use of technology. The interviews were audio-recorded with participants' consent using MS Teams and later transcribed verbatim. Data collection continued until saturation was reached, that is when no new insights emerged from interviews. The data of this study was analysed using thematic analysis as outlined by Braun and Clarke (2006). This involved familiarising oneself with the data, generating initial codes, searching for, reviewing and defining themes. The thematic analysis is ideal for identifying patterns across qualitative data and interpreting their meanings. The coding of the transcripts was done line-by-line to identify categories. Related codes were then grouped into overarching themes. Themes were reviewed to ensure they accurately depict the data. The deductive approach to thematic data analysis was adopted as it complements the research questions. It allowed the socio-phenomenal perspectives of the participants to be an essential part of the deductive thematic analysis. The interviews lasted 30 to 60 minutes each.

To ensure trustworthiness, this study employed several strategies outlined by Lincoln and Guba (1985). The credibility was achieved through member checking where participants reviewed their interview transcripts and verified whether their perspectives were accurately captured. The transferability was enhanced by providing rich and detailed descriptions of the research process and findings to allow readers to assess if the findings apply to their contexts. The dependability was achieved through an inquiry audit where a senior researcher not involved in the study examined the research process and analyses to assess their accuracy. Finally, confirmability or objectivity was established through reflexivity where all authors critically self-reflect on any biases or preconceptions that may influence research decisions and findings.

The study received ethics approval (Ethical Clearance number IREC 249/22) and obtained the necessary gatekeepers' permission from all three universities' ethics review boards before commencing the study. Thereafter, the study sought informed consent from participants outlining the study's purpose, risks and benefits of participating, measures to protect privacy, and their right to voluntarily withdraw from the study at any time. To protect participants' identities, pseudonyms were used and identifying details were removed from interview transcripts. The recorded interviews and transcripts were securely stored in password-protected devices and destroyed after an agreed period. The participants reviewed their interview data to ensure an accurate representation of their perspectives. The research aims and intended outcomes that could benefit lecturers were communicated to participants.

FINDINGS OF THE STUDY

The interviews conducted in this study were analysed using deductive thematic analysis. This section presents the results of this analysis. The deductive approach to thematic data analysis refers to a method where the author uses predetermined themes or theories to guide the analysis of qualitative data such as interviews (Dusi and Stevens 2022; Proudfoot, 2023). In other words, the analysis starts with pre-existing concepts or theories which are then applied to the data to identify relevant themes. In the same vein, Squires (2023) argues that the deductive thematic analysis enables an effective examination of how the interview data support and challenge existing language teaching theories, while also providing objectivity important for qualitative research susceptible to subjective biases, through its rigorous, transparent analytical process relying on established frameworks to reduce bias in theme identification and interpretation. The deductive approach was implemented by first identifying the relevant themes from the dataset based on the research aim. The aim of the study, as stated in the introduction section is to explore how university lecturers' social contexts shape their use of technology in African language teaching. The interview questions were carefully crafted based on the research questions to align with this aim. Participants are identified by codes indicating their gender and order of interview. For example, FP1 refers to the first female participant, while MP1 indicates the first male participant interviewed.

The data were then coded by systematically reviewing the interview transcripts, identifying relevant segments, tagging them accordingly, and organising the codes into themes (Jowsey *et al*. 2021). Careful reading and interpretation ensured accurate theme representation. The transcripts were afterwards processed by highlighting codes based on their relevance to the study objectives, literature, and framework. The data were then summarised and arranged under the codes, enabling theme generation for analysis. The coding produced the following themes: (a) embracing and use of technology for African language pedagogy and (b) intrinsic and extrinsic determinants of lecturers' use of technology in African language instruction. These themes are analysed below:

Theme 1: Embracing and Use of Technology for African Language Pedagogy

This theme presents lecturers' dispositions and use of technology for African language teaching. As Tierney (2021) argues, Bourdieu's tools enable a meticulous understanding of how technological transformation, and inequalities are reshaping higher education. Specifically, Bourdieu's concepts provide theoretical lenses to examine how lecturers' backgrounds, resources, and contexts shape their technology adoption and pedagogical approaches to African language instruction. This theme further produced 3 sub-themes, and these are discussed below.

Sub-theme A: Discomfort to a Gradual Embracing of Educational Technologies (EdTech)

Bourdieu's habitus represents the durable perceptions and dispositions shaped by our past experiences that orient practices (Husu, 2022). The analysis of the participants' responses reveals that lecturers initially embodied discomfort or reluctance towards adopting

technologies, however gradually developed more open dispositions through accumulating technology-assisted language teaching experience during the COVID-19 pandemic. For example, participant FP1 described initial "fears" and uncertainty towards teaching using technology stating that:

> *"It was not necessarily the resistance, but it was fear because more staff members in the department had never used it and students themselves, some of them, you know had feared. They were not used to it, so…plus the element of COVID, it…. COVID alone was causing uncertainty. Not sure that, you were not sure that you would live the following day and now you are here in front of the computer, you are to teach, and you are not yet sure where to touch and how to know. How to, for example, share material"* (FP1).

The above reaction by FP1 aligns with research showing lecturer habitus is often uncomfortable with unfamiliar digital technology (Slootman *et al*., 2023). However, another participant, FP2, explained how extended Covid-driven usage bred familiarity and acceptance, noting that:

> *"I will say it's very welcome, but at first, when we first used it, it wasn't …There were some fears, but now that we are used to it, it is very welcome. Of course, because of some advantages and yea…"* (FP2).

Their account displays an adaptive habitus shifting from uncertainty to greater comfort with technology. This indicates that their relationship with technology seems to have transformed initial hesitation and doubt into greater ease and familiarity. This adaptation suggests that they have developed more technological literacy over time, overcoming early gaps in skills and knowledge. This also highlights how perseverance and an openness to learn can empower us to expand our capabilities and perspectives (Deja *et al*., 2021). Though some wariness may linger, this participant's journey illustrates that new terrain, whether technological or otherwise, can start foreign and frustrating yet still yield understanding.

Similarly, FP1 further highlights how technology-assisted language teaching became mandated within their department during the COVID-19 pandemic, fostering habitual use of digital technology platforms among most lecturers. As Colclasure *et al*. (2021) argue, an abrupt move to emergency remote teaching using technology can catalyse lasting pedagogical changes. In contrast, FP6 described a spectrum of technology dispositions amongst staff – from minimal to extensive usage. However, they noted that "those who have been here like a long time, they are not that keen into the use of technology and the older ones as well," suggesting that established, older lecturers embody reluctance more as an engrained habitus. This aligns with research on greater technology discomfort among older university educators (Reay, 2020). This sub-theme has presented how lecturer habitus towards technology integration has gradually shifted from discomfort to wider acceptance, however, variations persist based on prior exposure to technology-assisted teaching.

Sub-theme B: Technology Capital enabled and constrained Pedagogical changes

Bourdieu used the term "capital" to describe resources enabling power and advantage within a particular social setting (Grenfell, 2014). Uneven access to infrastructure, skills training, and support shaped the interviewed lecturers' ability to effectively utilise technology in African language teaching. For instance, participant FP3, when asked about the acceptance and relevance of technological tools for teaching African languages, explained that technology integration was easier for their module/course targeting second language speakers because "that module is university-wide" and better resourced. According to the participant,

> *"I think for the module that we have. Ok. Because we run two streams, we have first language speakers and we have second language speakers, that module is the university-wide one because it is part of the language policy and your student audience there is much broader. And so, to use technology in that instance was probably a lot easier and more acceptable than within the other stream* (FP3).

The above participant FP3's perspective offers an interesting glimpse into how the breadth of a course's audience can impact attitudes towards technology integration. Specifically, FP3 found it easier to use technological tools in their module (course) aimed at second language speakers (Adedokun & Adedokun, 2024) of African languages rather than native speakers, simply because the former drew from university-wide enrolment while the latter had a narrower reach. This distinction suggests that classes oriented towards more general student populations may encourage or require more digital orientation from lecturers facilitating interdisciplinary engagement. Meanwhile, courses catering to niche groups like regional language speakers may represent more traditional pedagogical specializations less centred on broader technological literacy.

In addition, FP3 seems to imply that near-universal use of learning technologies across a wide student body legitimizes and normalizes their adoption in a way that specialized courses do not demand. So, lecturers' decisions around technology likely involve weighing subject matter and student needs against prevailing institutional norms. FP3's experience highlights how an educator's stage may shape their willingness to modernise instructional approaches - technologies they see as fundamentally altering a specialised course for a defined group may integrate far more seamlessly into a generic offering for a technology-immersed generation. This hints at potential generational divides in what constitutes "relevant" technological teaching tools within less homogeneous educational contexts.

Conversely, the transcripts also highlight instances where lecturers faced constraints in adapting pedagogy due to limited technology capital. The challenges range from basic familiarity issues to more profound struggles with incorporating technology into their teaching practices. This limitation is particularly evident among lecturers who may be more traditional in their approaches and less adept at navigating the new technology landscape. For instance, participant FP6 when asked about the extent to which technology is embraced in their department, noted that:

> *"So, there is quite a wide spectrum, you have got those who are more traditional, they just use it because it is there. It must be used and then you have got the ones that use almost every tool and then you also find those that are in-between. And so, I will say that we have got a mix. It also depends you know with experience you will find that those who have been here for a long time, are not that keen on the use of technology and the older ones as well, they are not that keen, but then you find the young ones, the ones who on their own are experienced. But you also do get older people that are into technology who are just, you know, sailing through this technology that don't have a problem. So, it's quite a mix. It's a mixed bag"* (FP6).

The above lecturer observes varying dispositions towards embracement of technology among lecturers of different seniority and ages, stating "You will find that those who have been here like a long time, they are not that keen into the use of technology and the older ones as well, they are not that keen, but then you find the young ones...are experienced." This points to an uneven distribution of what Bourdieu conceptualised as "technological capital" (Calderón Gómez, 2019) - skills, know-how and comfort with emerging technologies. Younger, less experienced educators likely possess more of this form of capital, as technological innovations have shaped their pedagogical training and habitus. Technological capital confers advantages in pedagogical fields facing technological transformation pressures from administrators and national policies.

However, veteran lecturers have accumulated wisdom, stature and authority through years of teaching experience. These constitute valid forms of capital, conferring seniority and leadership roles. The "traditional dispositions" described stem from enduring pedagogical orientations that develop through one's trajectory in the professional field over time (Nolan, 2016). Sudden injections of new technological capital thus threaten the value of the knowledge and status accumulated by experienced lecturers. This suggests that there is intergenerational tension present in this case, as younger lecturers' rising technological capital potentially disrupt traditional hierarchies by affording greater influence and quicker routes to authority.

This study therefore argues that Bourdieusian analysis in this case avoids determinism - habitus shapes orientations but agents can depart from ingrained dispositions. As participant FP6 noted, some "older people...sail through this technology" with ease, defying generational technological stereotypes through an individual agency. Nevertheless, the introduction of novel forms of capital necessitates a recalibration of established hierarchies and authority within pedagogical fields. Technological capital enables some changes in teaching methods and power balances, however enduring, experience-based capital remains crucial for contextual credibility. This suggests that there is a negotiation between structure and agency, with technological capital infusion shifting influence in favour of younger adopters, but unable to wholly supplant the wisdom accrued through seniority. This theoretical framing illuminates the multi-layered and evolving power dynamics at play as embracing technology prompts uneven pedagogical transformations across teacher generations.

Theme 2: Intrinsic and extrinsic determinants of lecturers' use of technology in African language instruction

This theme presents an analysis examining intrinsic and extrinsic determinants influencing lecturers' adoption and ongoing use of technology in their instruction of African languages. The analysis utilizes theoretical concepts from Bourdieu's sociological framework to illuminate how lecturers' technology use has been shaped by institutional pandemic responses, pedagogical commitments, personal dispositions, and multi-dimensional identity positioning.

The COVID-19 pandemic served as a major extrinsic factor that pushed lecturers to rapidly adopt technology in their instruction. As a participant stated, responding to a question on whose decision was it to use technology and if there was a choice, Participant FP1 responded that,

> *"Before COVID, yes there was a choice, but during COVID, there was no choice. Yes, because some lecturers were using blended learning before COVID but when there was COVID, it was completely the use of technology. Technology during COVID was 100 percent because there was no way to meet your students* (FP1).

The response of the above lecturer aligns with Bourdieu's concept of "field" representing the broader social space that individuals occupy, including institutional rules that constrain behaviour (Atkinson, 2021). COVID-19 restrictions at the government and institutional level forced a field change that compelled lecturers to use technology. Several institutions attempted to provide technology training to support use. However, participant FP3 critiqued these sessions as a "steep learning curve" occurring over just "weeks" for many struggling lecturers. This indicates that providing quality professional development to shape lecturers' skills can be challenging during rapid field changes. It is also worth noting that some lecturers who could not adapt to technology had to leave their jobs due to sudden changes they could not cope with. According to FF3:

> *"…It became an institutional decision, that's what motivated you. It was either you learn to use technology in your teaching, or you stop working. And some staff did end up leaving because they couldn't. They couldn't teach and there was just too much to learn, so I am not talking just out of……out of just saying that's something that may have, no, there are people that stopped working because they just couldn't do the technology thing.* (FF3).

The departure of lecturers due to technology's challenges demonstrates a failure to accumulate the necessary skills and capabilities enabled by new technologies required for language instruction. The loss also suggests the institutions are losing valuable institutional knowledge and expertise possessed by the departing lecturers. It may further signify issues with institutional culture, environment, or vision if talented employees leave due to technology frustrations.

Other determinants that impacted technology dispositions in lecturers' habitus of lecturers' use of technology in African language instruction are age and experience. For instance, participant FP1 recounted that:

".... there were discussions from the institution, also within the department and we did see some young academics who were already using technology for teaching telling us about the advantages of blended teaching and learning" (FP1).

FP1 portrayed technophile younger lecturers who adopted technology before COVID-19. Their positive framing around technology's usefulness for language instruction inspired initially hesitant older lecturers to embrace new tools during the pandemic. However, FP1 admitted, "I would never have used technology myself", previously finding it "difficult and annoying," FP1 only integrated technology when necessitated by COVID-19 disruptions. These divergent experiences reflect studies indicating older faculty members can be more skeptical about adopting new classroom technologies (Goh and Sigala, 2020; Tariq *et al.*, 2019; Yukhymenko-Lescroart *et al.*, 2021). They also underscore how embodied capacity and personal comfort with technology differed significantly across age groups. While veteran lecturers benefited from peer support in navigating COVID-19 requirements, rapid transitions still proved overwhelming.

In addition, for unwilling late adopters, anxiety and steep learning curves had to be overcome through external pressures and rapid skill acquisition. Participant FP1 described that "ignorance and fear of technology" initially "demotivated me". However, developing technological skills eventually provided freedom and confidence to instruct using technology, stating "Now that I know how to use it, I am free". This suggests that technological literacy itself became a valuable new capital in lecturers' habitus - by adopting technology, lecturers gained capabilities that facilitated teaching using technology.

Several intrinsic factors also motivated technology adoption and use. Many lecturers highlighted efficiency benefits that enhanced productivity through technological tools. For example, participant FP7 stated that:

"… technology made grading the students very easily because everything would be just in front of you. You don't have to mark the pile of papers……everything just becomes smooth when you use technology to teach. I don't think there will be anyone who would choose to use the manual approach when there is a more efficient approach to teach. That actually makes your work easier and more efficient. So that is what motivated me" (FP7).

This above exposition echoes Bourdieu's idea of strategic action within a field to accumulate valuable "capital" (Bourdieu, 2023). By streamlining assessments and administrative tasks, technology enables lecturers to work smarter. Furthermore, several lecturers highlighted how educational technology enabled continued student access and engagement during pandemic lockdowns. As participant MP4 explained:

"So technology was the only option for us to ensure that the students got the lectures" (MP4).

This demonstrates lecturers' intrinsic commitment to supporting student learning, consistent with Bourdieu's concept of cultural capital valued in the education field (Grenfell, 2014). This suggests that maintaining high quality instruction remained a pedagogical priority amidst the challenges of emergency remote teaching courtesy of COVID-19.

Many lecturers also highlighted ongoing hybrid and remote instruction options made possible by technology post-pandemic. This autonomy represents a current opportunity as technological capabilities become valued tools enabling flexible teaching strategies. Participant MP2 highlighted weighing variables like students' language backgrounds to determine if technology is appropriate for different aspects of language instruction. However, lecturers still make personalized decisions on technology integration based on intrinsic preferences, embodied experiences, and beliefs.

The COVID-19 pandemic forced a rapid shift to online and hybrid learning models, courtesy of technology and its tools. However, even as in-person education returns, lecturers find value in maintaining technology options that enable both remote participation and flexible teaching approaches. This suggests that determining the appropriate role of technology by lecturers requires careful consideration - lecturers weigh factors like students' language comprehension ability and access to devices to decide if technology enhances or hinders different aspects of language learning. Individual lecturers also develop personalized philosophies on technology integration based on their comfort levels, previous experiences with tech-enabled teaching during the pandemic, and innate beliefs on effective instructional design. While technology opens up unprecedented flexibility, human judgement still plays a vital role in leveraging these tools most effectively. This study therefore argues that students benefit when lecturer discretion, rather than top-down mandates, shapes the nuanced implementation of classroom technology post-pandemic.

In conclusion, the pandemic served as an extrinsic shock that forced technology adoption for African language lecturers to continue instruction amidst COVID restrictions. As for unwilling late adopters, anxiety and steep learning curves had to be overcome through external pressures and rapid skill acquisition. However, positive experiences using technology during emergency remote teaching brought about by COVID-19 also awakened many lecturers to the intrinsic benefits of efficiency, flexibility and remote student access. Technology dispositions have now become an increasingly valued capital within lecturers' habitus, yet personalised pedagogical preferences for technology integration continue, informed by lecturers' embodied experiences and beliefs about student needs within their instructional fields. In other words, adoption was initiated through extrinsic necessity, but sustained usage relies on intrinsic motivations shaped by multidimensional teaching settings. Ongoing technology usage remains mediated by dynamic identity positioning within intersecting fields.

DISCUSSION OF FINDINGS

One major finding is the uneven distribution of technology capital and its disruptive effects on traditional hierarchies. Younger lecturers were described as possessing greater comfort and literacy with educational technologies, conferring advantages in digitally transforming institutions. However, veteran lecturers retained invaluable wisdom and dignity capital accrued through years of teaching service. This produced intergenerational tensions regarding authority

and legitimacy, with new technological capital unsettling conventional hierarchies based on seniority.

The above phenomenon aligns with the study by Sánchez-Cruzado *et al.* (2021), who found that age and teaching experience significantly influence teachers' digital competence and attitudes towards technology integration. However, their study also revealed that continuous training can mitigate these differences, supporting our argument for sustained and empathetic training to equip all lecturers with evolving technology competencies. The study argues that while training is crucial, enduring capital forms cannot be wholly supplanted, given veteran lecturers provide contextual credibility irreplaceable by novel skills alone. This aligns with Bourdieu's notion of diverse capital types jostling for supremacy within fluid, contested fields (Grenfell, 2014), and is supported by the work of Falloon (2020), who emphasizes the importance of balancing technological skills with pedagogical knowledge in effective digital teaching.

The abrupt shift online during the COVID-19 pandemic served as an extrinsic shock compelling rapid technology adoption regardless of habitus. This unanticipated field change left many lecturers overwhelmed and anxious given the steep learning curves, resulting in some departures. Rapanta *et al.* (2020) distinguish between emergency remote teaching and well-designed online learning, emphasising that the former may not reflect the full potential of online education. Our findings support this distinction, revealing both challenges and opportunities in rapid digitalisation.

The study also found that positive experiences during emergency remote teaching revealed intrinsic benefits of technology for efficiency, student access, and pedagogical flexibility. This aligns with research by Moorhouse and Beaumont (2020), who found that the pandemic-induced shift to online teaching led to increased digital literacy and innovative pedagogical approaches among language teachers. However, our study extends this understanding by highlighting how lecturers' ongoing voluntary technology usage relies on intrinsic motivations shaped by their dynamic identity positioning across intersecting fields of institutional policies, student needs, and personal beliefs.

Findings revealed variation in how lecturers viewed technology's relevance for niche versus inclusive courses. Some felt broader interdisciplinary modules/courses warranted greater digital integration than specialised classes on ethno-linguistic cultures. This perspective resonates with the study of Shadiev and Yang (2020), who emphasise the importance of context-appropriate technology use in language learning. Our study contributes to this discourse by identifying potential generational divides regarding appropriate technological tools across diverse educational contexts in African language pedagogy.

A key theoretical contribution is the study's novel framing of technology capital as a disruptive force reconfiguring traditional hierarchies and authority claims within the academic field. While habitus explains enduring dispositions, capital better illuminates the shift in prestige and legitimacy between generations grappling with digital transformation. This perspective

aligns with and extends Engeness (2021)'s work on the role of cultural-historical factors in technology adoption in higher education, particularly in diverse global contexts.

On a practical level, the findings of this study underline the value of sustained, empathetic training to equip lecturers of all ages with the evolving competencies required in modern classrooms. This echoes recommendations by Trust and Whalen (2020) in their analysis of K-12 teachers' experiences with emergency remote teaching. Our study further suggests that sudden transitions should be accompanied by cultural change management initiatives that strengthen organizational inclusivity and cohesion, a point reinforced by Tondeur *et al.* (2019) in their examination of preservice teachers' technology integration.

Furthermore, personalized educator discretion over technology integration may yield more sensitive implementation specially designed to varied language instructional settings. This aligns with the findings of Kong (2022), who emphasises the importance of teacher autonomy and agency in technology-assisted language teaching. Our study extends this understanding to the specific context of African language pedagogy, highlighting the unique considerations in this field.

This analysis has generated critical insights regarding how lecturers' habitus, capital access, and positioning within complex fields interact to shape African language pedagogies, technology usage, and career trajectories over time. The discussion synthesizes key patterns while noting heterogeneous experiences based on biography, context, and agency. The findings provide a meticulous Bourdieusian perspective on how structure and agency dynamics mediate responses to technology-driven transformation within higher education language instruction, contributing to the growing body of literature on technology integration in language education (Chun *et al.*, 2016; Zou *et al.*, 2021).

In addition, lecturer positionalities within institutional types, locales and resourcing realities represent key factors shaping technology usage experiences that warrant further investigation. Prior research indicates that faculty at under-resourced institutions face greater barriers to effective technology adoption, such as limited bandwidth, infrastructure constraints, and inadequate training (Mbiydzenyuy, 2020). The sample could be disaggregated based on the university context to assess how institutional location and inequities have mediated lecturers' recent transitions. This could illuminate pressing resource needs or successes at certain sites that can inform policy interventions.

In summary, lecturers' racial positioning and identities in post-apartheid South Africa constitute another dimension for deeper analysis. The lasting impacts of apartheid marginalization and alienation from technological opportunities may reverberate in how lecturers have navigated unfamiliar online platforms. Alternatively, technologies could empower identity reclamation and elevate historically excluded voices. Exploring such themes can yield a more holistic understanding of technology's role in addressing or perpetuating inequalities.

CONCLUSION

This exploratory study offers initial insights into the technology adoption experiences of a small sample of lecturers teaching African languages. The findings point to opportunities for further analysis along intersecting lines of social difference and academic hierarchy using larger, more representative samples. However, the study has limitations including a narrow participant pool and reliance on self-reported data. Future research could employ mixed methods with direct observations to better understand how social contexts shape lecturers' technology integration. Investigating how factors like gender and career stage impacted pandemic-induced transitions represents a salient avenue for deeper investigation. Ultimately, future studies on this underexplored research area are needed to inform policies and practices that effectively support technology use in advancing multilingual higher education.

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