

## What is the Digitalised Curriculum for: Qualification, Socialisation and/or Subjectification?

*Makhulu Makumane*

### Abstract

The emergence of the deadly corona virus, popularly known as COVID-19, caused a hasty and ill-prepared paradigm shift in higher education institutions. Formerly reliant on the face-to-face mode of teaching and learning, the need for physical distancing recommended by the World Health Organization forced them to adopt a digitalised curriculum. This article explores whether the digitalised curriculum adopted by a higher education institution in Lesotho was for qualification, socialisation and/or subjectification. In other words, it investigates which propositions are influenced by the digitalised curriculum. Purposive sampling was used to select five studies conducted in Lesotho during/post the COVID-19 pandemic. The tree three rings theory was used to frame the study, with thematic analysis through critical discourse analysis employed to analyse the data. The findings suggest that, to some extent, the use of a learning management system favours qualification at the expense of both socialisation and subjectification. In addition, the digital divide was glaringly evident in the adoption of online learning. Formal incorporation of social media sites is recommended to enable students to socialise with prescribed content and to utilise their unique experiences with digital technologies to achieve their prescribed goals.

**Key words:** digitalised curriculum, learning management system (LMS), qualification, social media sites (SMS), socialisation, subjectification

### Résumé

L'émergence du virus corona mortel, communément appelé COVID-19, a provoqué un changement de paradigme précipité et mal préparé dans

**ABOUT THE AUTHOR:** MAKHULU MAKUMANE, National University of Lesotho and University of Kwazulu-Natal, South Africa, email: makhulum@yahoo.co.uk/216076795@stu.ukzn.ac.za

les établissements d'enseignement supérieur. Autrefois tributaires du mode d'enseignement et d'apprentissage en face à face, les établissements ont été contraints d'adopter un programme d'études numérisé en raison de la nécessité d'une distanciation physique recommandée par l'Organisation mondiale de la santé. Cet article examine si le programme numérisé adopté par un établissement d'enseignement supérieur au Lesotho visait la qualification, la socialisation et/ou la subjectivation. En d'autres termes, il étudie quelles propositions sont influencées par le programme numérisé. Un échantillonnage raisonné a été utilisé pour sélectionner cinq études menées au Lesotho pendant/après la pandémie de COVID-19. La théorie de l'arbre à trois anneaux a été utilisée pour encadrer l'étude, et une analyse thématique par le biais d'une analyse critique du discours a été employée pour analyser les données. Les résultats suggèrent que, dans une certaine mesure, l'utilisation d'un système de gestion de l'apprentissage favorise la qualification au détriment de la socialisation et de la subjectivation. En outre, la fracture numérique est apparue de manière flagrante dans l'adoption de l'apprentissage en ligne. L'intégration formelle de sites de médias sociaux est recommandée pour permettre aux étudiants de socialiser avec le contenu prescrit et d'utiliser leurs expériences uniques avec les technologies numériques pour atteindre les objectifs prescrits.

**Mots clés :** curriculum numérisé, système de gestion de l'apprentissage (SGA), qualification, sites de médias sociaux (SMS), socialisation, subjectivation.

### Introduction

The emergence of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), also known as COVID-19, forced paradigm shifts in the way different sectors operated due to restrictions put in place to curb the spread of the virus across the globe (Makumane, 2021a). COVID-19 was first recorded in Wuhan, China in 2019, and was declared a pandemic on 30 January 2020 by the Director-General of the World Health Organization (WHO) Dr Tedros Adhanom Ghebreyesus (WHO, 2021). This led to countries imposing different restrictions, with the most notable being physical and social distancing as the virus is transmitted through coming into contact with infected people's respiratory droplets (WHO, 2020). Higher education institutions (HEIs) were abruptly closed

in order to adhere to the recommendations, and modes of teaching and learning other than the traditional face-to-face approach were required to complete the academic year (Henaku, 2020; Mpungose, 2020a). Tamrat and Teferra (2020) note that most HEIs swiftly moved to online teaching and learning, calling for the digitalisation of their curricula. However, Adnan and Anwar (2020) assert that, for some institutions, this rapid shift merely involved the transfer of educational content to the digital world without necessarily adopting online teaching and learning methods. Adedoyin and Soykan (2020) concur and describe online teaching and learning during the pandemic as emergency remote teaching as its quality, efficiency and effectiveness were questionable. Seemingly, a lack of resources in some institutions inhibited a fully-fledged move to a digitalised curriculum, which is considered to be a plan for and/or of teaching and learning (Hoadley and Jansen, 2014; Mabuza and Khoza, 2020), since online teaching and delivery methods were somewhat neglected.

This seems to have been the case at a HEI in Lesotho, where a Learning Management System (LMS), software that is used as a depository for course content to be accessed by students at their convenience (Khoza, 2020a), had to be hastily adopted to salvage the academic year. Although this LMS existed prior to the COVID-19 pandemic, it was seldom used by lecturers and students as it was an optional platform that aimed to promote blended learning (Makumane, 2021a). It is also worth noting that at the time the LMS was launched, there was no clear exposition of the underpinning theory and policy framework to guide its effective implementation (Makumane, 2021a; Mashinini, 2020). Coupled with the challenges of digital technology illiteracy, poor Internet connections and/or a lack of technological resources, this led to intended users opting to use teaching and learning modes that supported their habitual pedagogical practices, with face-to-face teaching and learning predominating (Makumane, 2021a; Mpungose 2019a). Mashinini (2020) asserts that the imposition of online teaching and learning in HEIs during the COVID-19 pandemic presented numerous challenges, especially in ill-resourced institutions that lacked hardware (HW) and software (SW) resources. Lecturers and students that were unfamiliar with the use of digital technologies experienced technostress, with many resisting the shift to online platforms (Khoza, 2020a; Mpungose and Khoza, 2021).

Duvenage, Correia, Uink, Barber, Donovan and Modecki (2020) observe that students consciously use technology to enable autonomous knowledge construction (qualification), to socialise (socialisation) and to develop their unique identities (subjectification). However, the forceful imposition of technology, especially for educational purposes seemingly disrupted their 'norm', leading to negative experiences and reactions that caused technostress. Duvenage et al. (2020) attribute this to the fact that the youth tend to use technology to escape the 'real' world (unpleasant offline experiences), and note that the adoption of digitalised curriculum demanded a constant online presence. Dhira, Yossatornc, Kaurb, and Chen (2018) state that technostress, which they term 'social media fatigue', affects students both mentally and physically. They define it as a situation in which users of technology, in this case students, suffer from mental exhaustion due to technological, information and communication overload through participating in different digital platforms, resulting in resistance to their use.

Prensky (2001) posits that individuals who resist the use of digital technologies are often digital immigrants who have worked for many years without these technologies. Khoza (2021) differentiates between digital natives (fluent users of technology) and digital immigrants (those who learn to use technology). The COVID-19 pandemic disrupted the 'norm' and required both categories to shift their teaching and learning modalities through the forced use of digitalised curriculum. Indeed, Adedoyin and Soykan (2020) are of the view that it led to a digital transformation that would otherwise have taken years to effect in a 'normal' situation. Khoza and Mpungose (2020) posit that a move to online platforms requires Fourth Industrial Revolution (4IR) technologies. Butler-Adam (2018) notes that the 4IR calls for skills that support effective enactment and management of the curriculum while working with the new technology as well as with humans. Butler-Adam (2018) adds that there is a need for people to adapt to these platforms in order to achieve their educational goals.

Khoza and Biyela (2020) note that most undergraduate students are digital natives, that is, they were born during the digital era. This suggests that they are conversant with 4IR technologies. However, Khoza and Biyela (2020) highlight that digital natives also encounter challenges in using technology to master the content prescribed

for their qualification (factual). Khoza (2020b) adds that in order to promote knowledge-building that addresses their needs, students need to be adept at socialisation whilst still adhering to prescribed content to achieve learning outcomes. This suggests that students' experiences of the 4IR prior to joining university are mainly unstructured and socially influenced as they use technology for socialisation through social media sites (SMSs) such as WhatsApp and Facebook (Mpungose, 2019b). This article is based on the premise that students' backgrounds and unique experiences with technology through their use of digitalised curriculum (subjectification) help them to invent their own unique identities that inform their acquisition of prescribed content (qualification) and skills that allow them to be active participants in society (socialisation) (Biesta, 2015; Makumane, 2020, 2021b).

Digitalised curriculum is expected to address the three domains of education identified by Biesta (2015): qualification, socialisation and subjectification. Biesta (2015) adds that this means that education should promote transmission and acquisition of factual knowledge as well as skills that help individuals to address societal needs; and should assist individuals to create unique identities in their interaction with the digitalised curriculum. This suggests that ideally, qualification and socialisation should nurture independent and responsible individuals with unique personal identities that are moulded by education (Biesta, 2015; Khoza, 2020b). However, some studies show that one or more of these three propositions is usually neglected during the enactment of digitalised curriculum (Adnan and Anwar, 2020; Biesta, 2015; Khoza, 2020a, Khoza and Mpungose, 2020; Makumane, 2021a; Mpungose, 2019b). It is against this background that this article explores which proposition(s) are influenced by a digitalised curriculum at a HEI in Lesotho, where formal use of an LMS, and informal use of WhatsApp have been adopted to facilitate the teaching and learning process. It argues that the digitalised curriculum should embrace the three propositions in order to promote effective attainment of goals that support performance (qualification), competence-based (socialisation) and pragmatic (subjectification) curricula. These propositions are discussed in more detail in the following section.

### Literature Review: Digitalised Curriculum and the Three Propositions

The word curriculum is derived from the Latin word, *currere*, which means to run (Le Grange, 2017; Le Grange and Reddy, 2017). According to Pinar (2012), the notion of *currere* highlights students' experiences as one of the important aspects of education. It thus aims to understand the impact that education has on students' understandings of their personal (subjectification), social (socialisation) and professional (qualification) lives (Le Grange, 2017; Pinar, 2012). Pinar (2012) regards curriculum as complex interaction among content, lecturer and student, with the lecturer tasked with affording students meaningful learning experiences.

Digitalised curriculum talks to the notion of *currere* as it is a plan for and/or of teaching, learning and research that relies on HW, SW and ideological ware (IW) resources (Khoza, 2019; Khoza and Mpungose, 2020). This suggests that it introduces the use of 4IR technologies and resources. According to Schwab (2017), these are a revolutionary advancement on 3IR technologies that call for the use of educational technologies that blur the line between the physical and the digital world. These educational technologies comprise HW, SW and IW resources (Khoza, 2019; Makumane, 2021a). Hardware resources are tangible material that can be seen and can be connected to the Internet. They include computers, mobile phones, and tablets, etc. and support the use of an LMS which was mandatory for knowledge-building during the uncertainty presented by COVID-19 (Henaku, 2020; Khoza, 2020b). As noted earlier, LMSs existed in HEIs prior to the pandemic, although they were not widely utilised by lecturers and students who were digital immigrants (Khoza and Mpungose, 2020; Mpungose and Khoza, 2020). Different HEIs introduced the mandatory use of LMSs for blended teaching and learning before the pandemic, including the University of KwaZulu-Natal (Moodle); University of Cape Town (VULA); Durban University of Technology (Blackboard); University of South Africa (MyUNISA); and the National University of Lesotho (THUTO), to name but a few (Khoza and Mpungose, 2020). Learning management systems support a performance curriculum as they influence content ('what' students learn) as well as how that content is shared and deciphered in order to support knowledge-building. They therefore represent qualification since they determine educational objectives, content, technologies/resources, instructional procedures

and evaluation that ‘qualify’ students in their different fields (Biesta, 2015; Makumane, 2021b). Qualification in this article refers to reasoning that is informed by factual sources on specific disciplines that are based on schooled knowledge (Bernstein, 1999; Hoadley and Jansen, 2014; Makumane and Khoza, 2020). Consequently, the cognitive domain is engaged in order to facilitate retention of concepts, theories, ideologies and knowledge. Content is taught from the lowest to the highest levels guided by prescribed objectives, whilst using digital technologies (Khoza, 2019; Makumane, 2021b). In other words, qualification is concerned with the ‘what’ of the curriculum to address discipline needs that are presented as facts (Khoza, 2021). Therefore, the use of LMSs drives the structured systems of a digitalised curriculum whereby lecturers are seen as depositors of knowledge and students as mere recipients using HW resources that requires the use of cognitive intelligence. Van Deursen and van Dijk (2021) note that the use of cognitive intelligence is essential, especially in using digitalised curriculum through LMSs, as it denote the ability to reason, plan, solve problems, understand complex data, learn quickly and learn from experience. In other words, the use of LMSs requires students to acquire and apply knowledge in order for them to be deemed as ‘qualified’. Qualification thus forms part of the digitalised curriculum in order to qualify students through acquisition of knowledge, skills and dispositions (Biesta, 2015; Schiro, 2013). This suggests that in using LMSs, students are drilled in terms of prescribed content. However, they are not active participants in their learning process and are therefore unable to socialise with knowledge in order to meet their societal needs. This suggests the need to incorporate SMSs in order to facilitate easy access of content and to encourage active communication. Makumane (2021, p. 15) supports this assertion and adds that some LMSs do not support socialisation and this negatively impacts students’ ability to “socialise with the content as [they do] not permit flexible communication between students and lecturers and among students themselves.”

Socialisation, therefore, requires the use of SMSs to support students’ active participation in their knowledge-building (Khoza, 2020b; Mpungose and Khoza, 2021). Social media sites are used through SW resources, which are tools that are produced for the HW to facilitate the display of information during the teaching and

learning process (Makumane, 2018; 2021a). Online SW resources are made available through the Internet and promote a social presence since they allow socialisation. During the COVID-19 pandemic, some HEIs adopted the use of SMSs such as Facebook, WhatsApp, Twitter, etc., which enable students to actively participate in their knowledge construction (Mpungose and Khoza, 2020; Sokhulu, 2020). Notably, the 4IR has introduced SMSs that promote socialisation through the use of competence-based curriculum. In other words, during the pandemic, some HEIs incorporated SMSs that are preferred by students as they interact with their lecturers and one another in digital spaces that they are most familiar with, and this seemingly contributes to effective attainment of learning outcomes (Mpungose, 2020b). Thus, SMSs promote effective outcomes, activities, facilitation by lecturers, generated content and peer assessment, which are the principles of competence-based curriculum. Competence-based curriculum facilitates construction of knowledge that addresses the ‘how’ question in education (Khoza, 2021). This type of curriculum thus promotes collaboration and interactivity that contribute to the attainment of learning outcomes (Mpungose and Khoza, 2020; Sokhulu, 2020).

Biesta (2015) posits that socialisation in education seemingly “reproduces existing social structures, divisions and inequalities,” (p. 77). This suggests that the use of SMSs may perpetuate what Van Deursen and Van Dijk (2019) refer to as the digital divide. The digital divide is the social gap in the use of the digitalised curriculum, where factors such as socio-economic issues, social class and technological knowledge determine the feasibility of online learning (Mpungose, 2020c; Van Deursen and Van Dijk, 2019; 2021). The use of 4IR technologies calls for adequate resources and facilities to bridge the digital divide between financially capable individuals and those that are struggling financially, especially in terms of devices and costs (Makumane, 2021a; Van Deursen and Van Dijk, 2019). The abrupt changes brought about by the COVID-19 pandemic were a challenge as 4IR technologies are a luxury in sub-Saharan countries due to poor Internet connectivity, costly data and network issues (Moralista and Oducado, 2020; Tamrat and Teferra, 2020). These issues required the application of IW resources, which manage and encompass students’ personal needs as they facilitate learning with educational technologies that incorporate HW and SW resources (Khoza, 2013).

Ideological ware resources are theories and ideas that help students to effectively use HW (qualification) and SW (socialisation) resources (Khoza, 2019). In other words, these resources address students' unique needs and help manage actions that guide effective use of digitalised curriculum. Notably, IW resources facilitate the application of HW and SW resources as they are less concerned with technology and more inclined to ideology (Amory, 2010; Khoza, 2013). Thus, the use of IW resources breeds what Biesta (2015) refers to as subjectification. Subjectification, according to Biesta (2015), denotes unique individual experiences that are shaped by facts (qualification) and society (socialisation). This is supported by Sokhulu (2020), who avers that subjectification is brought about by combining the strengths of qualification and socialisation through the use of educational technologies in order to help students to self-actualise. Sokhulu's (2020) study explored Master's students' experiences of using digital technologies to conduct their research during the COVID-19 hard lockdown. The findings indicated that the students used their unique subjectification experience to handle any challenges. This suggests that they relied on the theories and ideas that they deemed most appropriate to address their needs and thus established their existence as subjects of initiative who are responsible for creating their own unique identities (Biesta, 2015). Therefore, in this case, individuals produce pragmatic curriculum, which is a convergence of performance curriculum and competence-based curriculum (Kaushik and Walsh, 2019; Ngubane-Mokiwa and Khoza, 2021). According to Kaushik and Walsh (2019), this convergence informs unique thought that influences how an individual processes facts and social experiences to promote subjectification. Subjectification places individual and personal needs at the heart of learning. In other words, when digitalised curriculum addresses subjectification, it allows students to mould their unique identities that are aligned to their idealised self (Biesta, 2015; Thompson and Erdil-Moody, 2016). Khoza (2019) affirms that pragmatic curriculum is driven by personal needs, the researcher role, blended learning, theories of technology and formative assessment and that these principles enable an individual to undertake logical action to attain desired educational experiences. Pragmatic curriculum therefore nurtures independent, responsible individuals with unique personal identities moulded by education through subjectification (Biesta, 2015,

Khoza, 2020a). Subjectification answers the 'who' (who is learning) question in education as it addresses personal needs that promote unique personal identities, which in turn create self-actualised individuals who are creative and problem-centred (Khoza, 2020b; Mabuto, 2020).

Khoza (2013) argues that should there be a paradigm shift in the teaching and learning process, it will only be effective and plausible if it is dominated by a combination of the three propositions (qualification-HW; socialisation-SW; and subjectification-IW). This article is premised on the assumption that ideally, digitalised curriculum should adopt the three propositions of education in order to reduce the teaching and learning distance between an HEI, its students, lecturers and content during and/or post COVID-19. It explores if this premise holds true in the context of a HEI in Lesotho. It thus investigates the propositions that are evident in a digitalised curriculum through the use of an LMS and an SMS (WhatsApp) to facilitate the teaching and learning process. The following section discusses the theory that framed this study, Khoza's (2013) Tree Three Rings Theory (TTTTRT).

#### *The TTTTRT and the Three Propositions*

The TTTTRT was introduced by Khoza (2013) as a framework to guide an online teaching and learning process. According to Khoza (2013, p. 62), "facilitators should imagine themselves working as farmers (facilitators), who are trying to grow fruit trees (teaching process) using three big machines/tools (three rings) in order to produce fruit (qualified students/learners)." In the TTTTRT, lecturers facilitate teaching and learning processes using the digitalised curriculum that is driven by HW, SW and IW resources. In this process, students are seen as active participants who become professionals through the facts provided (qualification), productive members of society who contribute meaningfully to social development (socialisation), and who mould their unique identities that are aligned to their idealised self (subjectification) (Biesta, 2015; Mabuza and Khoza, 2020). The TTTTRT addresses the three educational domains which are behaviourism, constructivism and cognitivism and these are aligned to qualification, socialisation and subjectification, respectively (Khoza, 2013; 2021). Figure 1 below presents the TTTTRT.

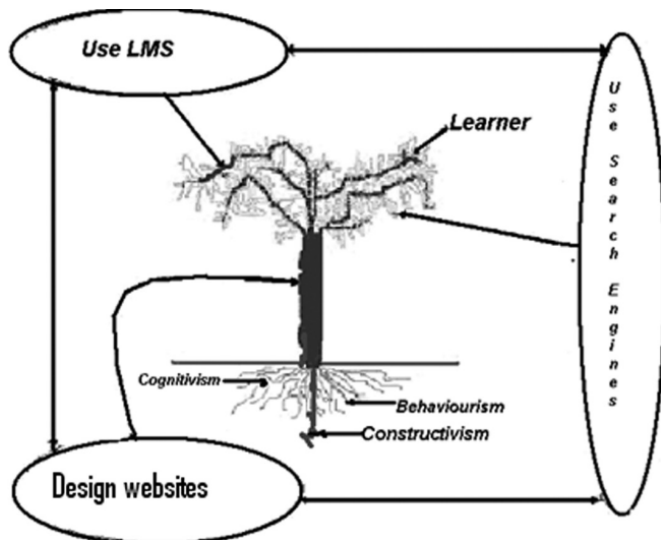


Figure 1: The TTTT (adapted from Khoza, 2013)

Figure 1 demonstrates the theory that uses a representation of a tree to demonstrate what happens when using digitalised curriculum. The root system is represented by the educational domains (behaviourism, constructivism and cognitivism). The roots feed the trunk, which helps transport nourishment that produces fruit (students) through the use of LMSs, search engines/SMSs and designed websites. According to Khoza (2021), behaviourism as a root favours the use of LMSs to breed qualification; constructivism favours the use of SMSs to produce socialisation; and cognitivism feeds the design of websites to breed subjectification. In other words, behaviourism suggests that students systematically use the educational technologies prescribed by their HEIs in a conscious, planned manner that helps them attain qualification. In constructivism, students subconsciously use SMSs that they have personal experience of and that magnify their learning strengths and needs to facilitate effective learning through socialisation (Mpungose, 2019a; 2020b). Notably, in cognitivism, students unconsciously engage their habitual actions towards educational technologies to design their unique *modus operandi* that ideally encompasses both behaviourism and constructivism in order to facilitate effective attainment of learning outcomes (Khoza, 2021). The TTTT is used in this article to explore

and understand the propositions that are embedded in a digitalised curriculum adopted in a Lesotho university during/post the COVID-19 era.

### Research Objective and Research Questions

The aim of the study was to explore the proposition(s) influenced by the digitalised curriculum at a Lesotho HEI, where formal use of an LMS and informal use of an SMS (WhatsApp) was adopted for continuation of the teaching and learning process. The questions that guided it were:

1. What is the digitalised curriculum for?
2. What informs the use of the proposition(s) of the digitalised curriculum?

### Research Design and Methodology

This study adopted a pragmatic paradigm which allows for either or both qualitative or quantitative data to study actions based on individual needs (Creswell and Creswell, 2018; Morgan, 2014). Morgan (2014) states that the pragmatic paradigm seeks to produce knowledge within a social context through experiences, which are seen as interactions between belief and action. It was appropriate for this study that explored the three educational domains that address action (behaviourism), social belief (constructivism) and experiences (cognitivism). Critical discourse analysis (CDA) was used to analyse and review text from published sources (Ngubane-Mokiwa and Khoza, 2021). Fairclough (2001) affirms that CDA incorporates a variety of approaches to the social analysis of discourse. Fairclough (2001) adds that methodologically, CDA helps to provide information/accounts of ways in which “discourse ‘(re) constructs’ social life in processes of social change” (p. 122). This approach was appropriate as it deals with the social aspect (socialisation) of research by determining how what is claimed to be social reality in the selected texts shapes individuals’ factual perceptions (qualification) as well as their unique identity (subjectification).

### Sampling

Purposive sampling was used to select five studies conducted in Lesotho on the university under study during the COVID-19 era. In purposive sampling, samples are deliberately selected due to their

ability to provide authentic, trustworthy information relevant to the research objectives and questions (Bryman, 2004; Yin, 2015). The studies selected were conducted by Mashinini (2020); Makafane and Chere-Masopha (2021), Makumane (2021a), Mbambo-Thata (2020) and Sepiriti (2021). These studies were identified as possessing the required information that correlated to the study's objectives and questions. They were able to generate authentic data as they were conducted during/post the COVID-19 era on the HEI under scrutiny. Four principles of trustworthiness were observed and taken into consideration to ensure credibility (truth-value), dependability (use of direct quotations), confirmability (triangulation using multiple studies by different authors to authenticate the findings), and transferability (applicability of the study in different contexts (Makumane, 2021b; Ngubane-Mokiwa and Khoza, 2021).

#### *Data Analysis*

Thematic analysis was used to analyse the data. In this type of analysis, both inductive and deductive reasoning are used to identify patterns and themes from selected texts in relation to the research questions (Braun and Clarke, 2012). Thematic analysis enables the researcher to decipher behaviour, beliefs and experiences during interaction with the data through pre-determined (deductive) themes and use inductive reasoning in interaction with the texts (Samuel, 2009). The pre-determined themes were framed by the principles of the TTTT. Inductively, data were arranged and correlated in order to identify unanticipated patterns, categories and themes that were not deductively identified. Braun and Clarke (2012) affirm that an inductive approach is data-driven as the coding of data is undertaken without trying to fit it into an existing coding frame. Open coding was used to accommodate both deductive and inductive reasoning (Nowell, Norris, White and Moules, 2017).

#### **Presentation and Discussion of Findings**

To ensure the truth value of the study, the data discussed are presented using direct quotations. This limits distortion and misinterpretation of data. The findings are presented in line with the themes that were determined deductively through the use of the TTTT and those that were inductively revealed through interaction with the data. The themes

are thus: Qualification (behaviourism); Socialisation (Constructivism); Subjectification (cognitivism); and the Digital Divide.

#### ***Theme 1: Qualification (Behaviourism)***

Qualification is aligned to behaviourism in that it is objective and systematic in applying concepts, theories, ideologies and factual knowledge that impact behaviour through interaction with the digitalised curriculum (Khoza, 2013; Moore, 2011). Qualification is therefore attained through structured systems that are imposed by the mandatory use of an LMS. Mashinini (2020, p. 169) notes that:

the [LMS] which has since its launch in 2010 operated very negligibly, and picked up slightly since 2014, has finally become fully active to aid teaching and learning ...Therefore by default, COVID-19 has helped the University to implement fully its strategic goal 2, which states that the [University] shall be 'a university of choice providing high quality educational experience and relevant scholarship'.

This excerpt seems to imply that the forced imposition of the LMS in the university under study had a positive impact during the novelty presented by the COVID-19 era. In other words, the pandemic presented a silver lining in that the LMS that had been neglected since its introduction was swiftly adopted to salvage the teaching and learning process and 'qualify' students. The latter assertion is substantiated by Makumane (2021a, pp. 11-12) who asserts that "[students] preferred the use of a professional platform that influences factual perceptions as it grants them access to factual knowledge of their designated courses." This suggests that the use of the LMS was perceived as making a positive contribution to students' acquisition of knowledge in that it enabled them access to content that would 'qualify' them (Biesta, 2015; Sokhulu, 2020). Khoza and Mpungose (2020) affirm that a digitalised curriculum is dominated by performance curriculum as it presents prescribed content guided by objectives, resources, time frames and assessment. Such qualification is attained through LMSs, which facilitate knowledge consumption.

Conversely, some studies unearthed students' qualms about the prescribed LMS. On the one hand, Sepiriti (2021, p. 89) notes that,

“participants [...] revealed that the LMS was not interactive”, while Mashinini (2020, p. 173) states: “the biggest challenge was that most students did not participate or come into chatroom sessions where they were organised and this cut the necessary academic communications between lecturers and students in their courses.” These assertions seem to imply a lack of interactivity as far as the LMS was concerned. This is seemingly due to two challenges, the first being a lack of the technological skills and knowledge complexities associated with the use of the LMS; and the second apparent rebellious attitudes towards having to use a platform whose existence was somewhat ignored, especially by digital immigrants, before the uncertainty brought about by COVID-19 due to its demanding nature in terms of resources (HW, SW and IW) (Makumane, 2021a; Mpungose, 2019a).

On the other hand, Makafane and Chere-Masopha (2021, p. 135) submit that students were not coping with the use of the LMS and thus resorted to boycotting their studies. “They indicated that students [...] relied on their friends or willing counterparts to assist them with downloading (learning materials such as notes and/or prescribed resources from the Internet and teacher feedback) or uploading (assignment).” The latter assertion talks to the issue of the digital accessibility of the LMS, which was seemingly limited. Makumane (2021a) states that digital accessibility requires the use of HW and SW resources and that it supports qualification in that it requires that the given instructions (downloading) must be systematically followed to access prescribed content. Therefore, in the case presented by Makafane and Chere-Masopha (2021), qualification was compromised as digitalised curriculum was adopted hastily without proper planning due to the emergence of the pandemic. Adedoyin and Soykan (2020) posit that hasty adoption of the digitalised curriculum should be seen as “emergency remote teaching” rather than online teaching and learning as inadequate planning was invested to ensure quality. In addition, it is apparent that students’ needs were not sufficiently taken into account when the use of the LMS was imposed.

Since most students are considered digital natives, they are restricted in terms of using their technological skills to master prescribed content that contributes to their qualification (Khoza and Biyela, 2020; Waghid and Waghid, 2016). Khoza and Biyela (2020) further assert that

competence-based curriculum, which puts students’ needs at the centre of teaching and learning, should be incorporated to address socialisation. Similarly, Mpungose (2020c) is of the view that digitalised curriculum should be more student-centred and move away from lecture-centred methods to allow individuals to explore their disciplines outside their ‘normal’ (face-to-face) context. This suggests the adoption of informal SMSs to promote socialisation with content.

### *Theme 2: Socialisation (Constructivism)*

Socialisation should ideally form part of the digitalised curriculum in order to encompass the issue of ‘relationships’ in education (Biesta, 2015). These relationships are fostered through the adoption of competence-based curriculum using learning activities, facilitation, a learning community, distance learning and outcomes (Khoza and Mpungose, 2020; Makumane and Khoza, 2020). From the reviewed studies, it seems that these principles of competence-based curriculum were lacking. For instance, Sepiriti (2021, p. 8) attests that, “the challenge is that the [LMS] hinders effective interaction between students and their lecturer [...] they [lecturers] delay/or [do] not respond at all to the questions students have posed on chatroom.” This implies that the LMS used did not support socialisation experiences that support individuals’ social needs. Sokhulu (2020) states that digital technologies help create a socialisation experience in education. However, this seemed not to be the case as Makumane (2021, p. 15) notes: “[The] LMS did not allow participants to socialise with the content as it did not permit flexible communication between students and lecturers and among students themselves.” Makafane and Chere-Masopha (2021, p. 134) observe that, “[students] being trained how to use LMS had been of very little help for effective participation because training did not provide opportunities for hand-on practice.” These assertions echo Sepiriti’s (2021) finding that limited communication inhibits active participation and interaction with content. Mpungose (2020c) states that students become more active when they use platforms that they are most familiar with, such as SMSs (WhatsApp, Facebook, Twitter, etc.). Khoza (2020b) thus asserts that an LMSs should incorporate such sites to strengthen professional and societal knowledge-building. Notably, some lecturers became aware of this shortfall and used informal platforms



such as WhatsApp and Zoom to support students' socialisation needs and facilitate achievement of the learning outcomes. However, since there was no implementation framework for these sites, which are not necessarily formally recognised as teaching platforms by the institution, their use required the merging of performance-based (qualification) and competence-based (socialisation) curricula by students to mould their pragmatic curriculum (subjectification).

### *Theme 3: Subjectification (Cognitivism)*

[Students'] statements on the appreciation of the LMS and their recommendation for adaption of SMS that they are accustomed to implicitly imply their need to use their unique experiences with digital technologies proved to have a bearing on the content acquired and on the efficiency of technological knowledge in the attainment of goals (Makumane, 2021a, p. 12).

This excerpt alludes to the fact that the use of both HW and SW resources was reliant on students' unique prior experiences with digital technologies. In other words, students already had their own ideologies towards the use of digital technologies, but had to adapt them to what was presented in their HEI to continue the teaching and learning process in a novel situation. Mpungose (2020b) attests that IW resources allow students to use their experiences to construct knowledge socially (socialisation), while also exploring formal platforms such as LMSs to enhance knowledge acquisition (qualification). Makumane and Khoza (2020) add that IW resources are used to control learning actions in order to achieve attained goals. Mpungose (2020b) further highlights that HEIs' failure to formally adopt SMSs inhibits authentic learning that draws on students' experiences. Thus, the HEI under study did not formally acknowledge the use of SMSs to enhance knowledge building that supports both professional and societal development in order to establish personal identities that promote a harmonious working relationship among lecturers, students and other pertinent stakeholders (Khoza, 2020b). It is apparent that the swift adoption of the digitalised curriculum had a negative impact on the use of IW resources that produce subjectification. "[The] hasty and haphazard decision to migrate courses online should be seen as an ingredient for chaos that is likely to damage the quality [of] teaching and learning" (Makafane and Chere-Masopha,

2021, p. 135). This suggests that the quality of teaching and learning was affected by the swift change in the teaching mode that was alien to digital immigrants as well as digital natives. It implies that students had to rely on their limited pedagogical knowledge (subjectification) to blend qualification (through the use of the LMS) and socialisation (through the use of search engines and SMSs). Biesta (2015) and Khoza (2020b) acknowledge that the combination of these three propositions of education facilitates effective teaching and learning that support knowledge-building for the 4IR.

### *Theme 4: The Digital Divide*

"Data cost is a major digital divide that inhibits access to learning in digital spaces" (Mbambo-Thata, 2020, p. 34). The digital divide is compounded by the forced use of digitalised curriculum and the exorbitant cost of data perpetuates it (Henaku, 2020; Tamrat and Teferra, 2020). Van Deursen and Van Dijk (2019) suggest that the digital divide socially divides individuals according to resources that grant them access to online learning. The HEI made an effort to address it by negotiating with service providers to offer zero-rated access to online platforms. Mashinini (2020, p. 170) notes that it approached major network providers "to assist it to cope with costs of access to online learning through providing ... free access to [the LMS] for online teaching and learning." Mbambo-Thata (2020, p. 34) comments that "[the university's] adoption of reverse billing broke the digital divide that often prohibits access to online content." These assertions suggest that the HEI ensured that data costs were not an impediment to using the digitalised curriculum.

However, digital accessibility proved to be a somewhat insurmountable obstacle as it required individuals to have personal gadgets (laptops, tablets, smartphones, etc.) that could access the required software, network and the Internet, in order to facilitate effective online learning. Makafane and Chere-Masopha (2021, p. 133) state that "many of the [participants] indicated that because of their socio-economic background, they do not have access to personal digital resources and [a] dedicated learning space." Mashinini (2020, p. 160) suggested earlier that:

the online teaching that universities have resorted to due to COVID-19 must ensure that all students, including those from

highly economically disadvantaged groups, which they call the 'missing middle' are afforded access to connectivity, digital devices and data, inter alia, to be able to take part in the online teaching and learning too.

These excerpts suggest that the forced use of 4IR technologies through digitalised curriculum perpetuated the digital divide as most participants seemed to have limited material access, and some had poor quality HW. Van Deursen and Van Dijk (2019) argue that the quality of HW resources owned by an individual may exacerbate the digital divide because different devices do not permit the same online access.

The HEI devised ways of curbing this challenge, albeit at a later stage. "The [...] management allowed some students affected [...] to come back into campus residence from where they could be able to do so" (Mashinini, 2020, p. 171-172). Mpungose (2020c) contends that HEIs should address the digital divide in order to promote effective online learning. Ostensibly, the HEI in question strove to do this by negotiating zero-rated access and granting physical access to students who were struggling with HW and SW resources. However, such efforts were limited as not all students were granted access to campus. In fact, Makafane and Chere-Masopha (2021, p. 134) report that, "the findings of this study established that all the students did not think the university was doing enough to support online learning, particularly by making digital infrastructure and resources available and accessible to ensure that no student was disadvantaged." Hence, Makumane (2021, p. 15) suggests that HEIs should explore "inexpensive and reliable digital technologies that may be used to promote professionalisation, socialisation and personalisation in the use of online learning in the Lesotho context, where digital technologies are seen to promote digital divide due to access to the internet, poor connectivity and costly data." This implies provision of digital technologies (mostly HW), especially to financially disadvantaged individuals to access online learning. For instance, the HEI should not resort to selective access to campus, but rather negotiate with service providers to provide laptops to all students in urgent need, with the repayments deducted from their monthly stipends.

## Conclusion

This article explored which proposition(s) are influenced by the digitalised curriculum in an HEI in Lesotho, where formal use of an LMS, and informal use of an SMS (WhatsApp) were adopted to facilitate the teaching and learning process. The findings indicate that the institution's digitalised curriculum is more inclined to qualification, whilst neglecting both socialisation and subjectification. In other words, the design of the digitalised curriculum seemed to support structured systems through the mandatory use of the LMS. This suggests that the LMS allowed students to access prescribed content that influences attainment of factual knowledge which qualifies them in their different disciplines and programmes (Biesta, 2015; Khoza, 2021). However, the findings showed that the accessibility of such knowledge was compromised by students' lack of technological skills and knowledge complexities in using digital technologies.

These are in line with those of Adedoyin and Soykan (2020) who contend that hasty adoption of the digitalised curriculum resulted in a lack of planning which usually accompanies the introduction of a paradigm shift. In turn, this resulted in insufficient training, especially for digital immigrants who tend to experience techno-stress when faced with obligatory use of educational technologies (Khoza, 2020b). In relation to socialisation, the findings indicated that the LMS was limited in terms of enabling students to socialise with prescribed content. This implies that they were not able to actively participate and interact with the content in order to meet their needs. Some lecturers informally used WhatsApp and/or Zoom to address this challenge although they are not formally recognised by the HEI as teaching platforms.

Thus, on a larger scale, socialisation was neglected, and this had a bearing on subjectification, whereby students needed to use their prior unique experience of educational technologies to help them navigate both formal use of the LMS and informal use of SMSs. It is thus concluded that the digitalised curriculum in this instance is for qualification, and is found wanting in terms of socialisation and subjectification. This implies that the curriculum does not promote a sound education; Biesta (2015) notes that quality education is a blend of these three domains/propositions as "they cannot really be separated" (p. 78). Based on these findings, revision of the digitalised curriculum is

recommended in order to merge the three domains. An implementation framework is also recommended to guide proper use of an LMS that formally incorporates different SMSs that talk to the needs of students and enable them to self-actualise.

## References

- Adedoyin, O. B., and Soykan, E. (2020). Covid-19 pandemic and online learning: the challenges and opportunities. *Interactive Learning Environments*, DOI:10.1080/10494820.2020.1813180.
- Adnan, M., and Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students perspectives. *Journal of Pedagogical Sociology and Psychology* 2(1), 45-51.
- Amory, A. (2010). Education technology and hidden ideological contradictions. *Educational Technology and Society* 13(1), 69-79.
- Bernstein, B. (1999). Vertical and horizontal discourse: An essay. *British Journal of Sociology of Education* 20(2), 157-173.
- Biesta, G. (2015). What is Education For? On Good Education, Teacher Judgement, and Educational Professionalism. *European Journal of Education* 50(1), 75-87.
- Braun, V., and Clarke, V. (2012). Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, and K. J. Sher (eds) *APA handbook of research methods in psychology, Vol. 2. Research designs: Quantitative, qualitative, neuropsychological, and biological*, pp. 57-71. American Psychological Association. <https://doi.org/10.1037/13620-004>
- Bryman, A. (2004). *Social Research Methods*. Oxford: Oxford University Press.
- Butler-Adam, J. (2018). The Fourth Industrial Revolution and education. *S Afr J Sci* 114(5/6), 1.
- Creswell, J. W., and Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. London: SAGE Publications, Inc.
- Dhir, A., Yossatorn, Y., Kaur, P., and Chen, S. (2018). Online social media fatigue and psychological wellbeing—A study of compulsive use, fear of missing out, fatigue, anxiety and depression. *International Journal of Information Management* 40, 141-152.
- Duvenage, M., Correia, H., Uink, B., Barber, B. L., Donovan, C. L., and Modecki, K. L. (2020). Technology can sting when reality bites: Adolescents' frequent online coping is ineffective with momentary stress. *Computers in Human Behavior* 102, 248-259. <https://doi.org/10.1016/j.chb.2019.08.024>
- Fairclough, N. (2001). Critical discourse analysis as a method in social scientific research. In R. Wodak and M. Meyer (eds) *Methods of Critical Discourse Analysis*, pp.121-138. London: Sage.
- Henaku, E. A. (2020). COVID-19: Online Learning Experience of College Students: The Case of Ghana. *International Journal of Multidisciplinary Sciences and Advanced Technology* 1(2), 54-62.
- Hoadley, U., and Jansen, J. (2014). *Curriculum: Organising knowledge for the classroom* (3<sup>rd</sup> ed.). Oxford University Press Southern Africa.
- Kaushik, V., and Walsh, C. A. (2019). Pragmatism as a Research Paradigm and Its Implications for SocialWork Research. *Social Sciences* 8(255), 1-17.
- Khoza, S. B. (2013). Can they change from being digital immigrants to digital natives? *Progressio* 35(1), 51-68.
- Khoza, S. B. (2019). Lecturers' Reflections on Curricular Spider Web Concepts Transformation Strategies. In E. N. Ivala and C. L. Scott (eds) *Transformation of Higher Education Institutions in Post-Apartheid South Africa*, Vol. 1, pp. 15-26. New York: Routledge - Taylor and Francis Group.
- Khoza, S. B. (2020a). Students' Habits Appear Captured by WhatsApp. *International Journal of Higher Education* 9(6), 307-317. doi:<https://doi.org/10.5430/ijhe.v9n6p307>
- Khoza, S. B. (2020b). Academics' "Why" of Knowledge-Building for the Fourth Industrial Revolution and COVID-19 Era. *International Journal of Higher Education* 9(6), 247-258
- Khoza, S. B., and Biyela, A. T. (2020). Decolonising technological content knowledge of firstyear mathematics students. *Education and Information Technologies*. DOI:<https://doi.org/10.1007/s10639-019-10084-4>.
- Khoza, S. B., and Mpungose, C. B. (2020). Digitalised Curriculum to the rescue of a Higher Education Institution. *African Identities* 18(4), 1-21. doi:<https://doi.org/10.1080/14725843.2020.1815517>
- Khoza, S. B. (2021). Can Teachers' Identities Come to the Rescue in

- the Fourth Industrial Revolution? Technology, Knowledge and Learning. DOI: <https://doi.org/10.1007/s10758-021-09560-z>.
- Le Grange, L. (2017). Contemporary curriculum theories and their influence on teaching and learning. In L. Ramrathan, L. Le Grange, and P. Higgs (eds) *Education Studies for Initial Teacher Development*, pp. 112-124. Cape Town: Juta and Company (Pty) Ltd.
- Le Grange, L., and Reddy, C. (2017). Curriculum development and design. In L. Ramrathan, L. Le Grange, and P. Higgs (eds) *Education Studies for Initial Teacher Development*, pp. 125-138. Cape Town: Juta and Company (Pty) Ltd.
- Mabuto, M. P. (2020). *Educators Enacting Non-Formal Education Policy- Case of Three Schools in Masvingo District, Zimbabwe- An Exploration*. Unpublished PhD thesis. University of KwaZulu-Natal, Durban.
- Mabuza, D. C., and Khoza, S. B. (2020). Educators' reflections of the instructional time in JC integrated consumer science curriculum. *International Journal of Home Science* 5(1), 1-17.
- Makafane, D. T., and Chere-Masopha, J. (2021). COVID-19 Crisis: Challenges of Online Learning in One University in Lesotho. *African Perspectives of Research in Teaching and Learning* 5(1), 126-138.
- Makumane, M. (2018). Educators' enactment strategies of the French integrated curriculum in Lesotho: An action research Unpublished doctoral thesis. University of KwaZulu-Natal.
- Makumane, M. (2020). Secondary School Educators' Enactment Strategies of the French Integrated Curriculum Content. *European Journal of Foreign Language Teaching* 5(1), 150-164.
- Makumane, M., and Khoza, S. B. (2020). Educators' Reasonings and their effects on successful attainment of curriculum goals. *South African Journal of Higher Education* 34(2), 95-111.
- Makumane, M. A. (2021a). Students' perceptions on the use of LMS at a Lesotho university amidst the COVID-19 pandemic. *African Identities* 2021(1), 1-18. doi:<https://doi.org/10.1080/14725843.2021.1898930>.
- Makumane, M. A. (2021b). Theory of Enactment Strategies as a Way forward in Enacting a French Integrated Curriculum in Lesotho. In K. G. Fomunyam and S. B. Khoza (eds) *Curriculum Theory, Curriculum Theorising, and the Theoriser*, pp. 295-319. Boston: Brill Sense.
- Mashinini, V. (2020). COVID-19 and National University of Lesotho: Experiences and Challenges. *International Journal of Education and Research* 8(9), 157-180.
- Mbambo-Thata, B. (2020). Responding to COVID-19 in an African university: the case the National University of Lesotho library. *Digital Library Perspectives* 2020(4), 28-38.
- Morgan, D. L. (2014). Pragmatism as a Paradigm for Social Research. *Qualitative Inquiry* 2914(20), 1045-1053. Retrieved from <http://qix.sagepub.com/content/20/8/1045>
- Mpungose, C. B. (2019a). Is Moodle or WhatsApp the preferred e-learning platform at a South African university? First-year students' experiences. *Education and Information Technologies*. DOI: <https://doi.org/10.1007/s10639-019-10005-5>
- Mpungose, C. B. (2019b). Is Moodle a Platform to Decolonise the University Curriculum? Lecturers' Reflections. *Africa Education Review*. DOI: 10.1080/18146627.2018.1479645.
- Mpungose, C. B. (2020a). Are Social Media Sites a Platform for Formal or Informal learning? Students' Experiences in Institutions of Higher Education. *International Journal of Higher Education* 9(5), 300-311. doi:<https://doi.org/10.5430/ijhe.v9n5p300>
- Mpungose, C. B. (2020b). Beyond limits: Lecturers' reflections on Moodle uptake in South African universities. *Education and Information Technologies* 2020(4), 1-20. DOI: 10.1007/s10639-020-10190-8
- Mpungose, C. B. (2020c). Emergent transition from face-to-face to online learning in a South African University in the context of the Coronavirus pandemic. *Humanities and Social Sciences Communications* 7(1), 1-9.
- Mpungose, C. B., and Khoza, S. B. (2020). Postgraduate Students' Experiences on the Use of Moodle and Canvas Learning Management System. *Technology, Knowledge and Learning* 28(4), 1-16. doi:<https://doi.org/10.1007/s10758-020-09475-1>
- Mpungose, C. B., and Khoza, S. B. (2021). Students' Reflections on the Use of Zoom Video Conferencing Technology for Online Learning at a South African University. *International Journal of African Higher Education* 8(1), 1-18.
- Moralista, R.B., and Oducado, R.M.F. (2020). Faculty perception toward

- online education in a state college in the Philippines during the coronavirus disease 19 (COVID-19) pandemic. *Universal Journal of Educational Research* 8(10), 4736-4742. DOI: 10.13189/ujer.2020.081044.
- Moore, J. (2011). Behaviourism. *The Psychological Record*, 61 449-464.
- Ngubane-Mokiwa, S. A., and Khoza, S. B. (2021). Using Community of Inquiry (CoI) to Facilitate the Design of a Holistic E-learning Experience for Students with Visual Impairments. *Education Sciences* 11(152), 1-12. doi:<https://doi.org/10.3390/xxxxx>
- Nowell, L.S., Norris, J. M., White, D. E., and Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods* 16,1-12.
- Pinar, W. (2012). *What is Curriculum Theory? (2<sup>nd</sup> Edition)*. New York: Routledge.
- Prensky, M. (2001). Digital natives, digital immigrants Part 1. *On the Horizon* 9(5), 1-6. Doi:10.1108/10748120110424843
- Samuel, M. A. (2009). On becoming a Teacher: Life history research and the force-field model of Teacher Development. In Dhunpath, R., and Samuel, M.A. (eds) *Life history research-Epistemology, methodology and representation*, pp. 3-18. Rotterdam: Sense Publishers.
- Schiro, M. S. (2013). *Curriculum theory: Conflicting visions and enduring concerns* (2<sup>nd</sup> ed.). Thousand Oaks: Sage.
- Schwab, K. (2017). *The Fourth Industrial Revolution*. Cologny: World Economic Forum.
- Singh, H. (2003). Building Effective Blended Learning Programs. *Educational Technology* 43(6), 51-54.
- Sepiriti, S. (2021). Investigating the Effects of Using Thuto Learning Management System: A Case of the National University of Lesotho. *Journal of Online and Distance Learning* 2(1), 1-11.
- Sokhulu, L. H. (2020). Students' experiences of using digital technologies to address their personal research needs during the COVID-19 lockdown. *African Identities* 18(3), 1-17. Retrieved from <https://doi.org/10.1080/14725843.2020.1801384>. doi:10.1080/14725843.2020.1801384
- Tamrat, W., and Teferra, D. (2020, April 9). COVID-19 poses a serious threat to higher education. *University World News*. Retrieved from <https://www.universityworldnews.com/post.php?story=20200509103755715>
- Thompson, A. S., and Erdil-Moody, Z. (2016). Operationalising multilingualism: language learning motivation in Turkey. *International Journal of Bilingual Education and Bilingualism* 19(3), 314-331.
- Van Deursen, A. J., and van Dijk, J. A. (2019). The first-level digital divide shifts from inequalities in physical access to inequalities to material access. *New Media Soc.* 21(2), 354-375. <https://doi.org/10.1177/1461444818797082>.
- Van Deursen, A. J., and van Dijk, J. A. (2021). IQ and digital inequality: An empirical investigation. *New Media and Society* 00(0), 1-23. DOI: 10.1177/14614448211024012.
- Waghid, Z., and Waghid, F. (2016). Examining Digital Technology for (Higher) Education through Action Research and Critical Discourse Analysis. *South African Journal of Higher Education* 30(1), 265-284.
- World Health Organisation (WHO). (2020, 8 March). *Timeline: WHO's COVID-19 response*. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline/>.
- World Health Organisation (WHO). (2021, 9 July). *Modes of transmission of virus causing COVID-19: Implications for IPC precaution recommendations*. Scientific Brief. <https://www.who.int/news-room/commentaries/detail/modes-of-transmission-of-virus-causing-covid-19-implications-for-ipc-precaution-recommendations>.
- Yin, R. K. (2015). *Qualitative research from start to finish*: Guilford Publications.