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Chapter

# Sustainable Pathways for SLP Provisioning Amid a National Health Crisis: A Newspaper Review

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## Abstract

Limited studies provide an analytical lens of students' experiences of access to digital technology in Higher Education Institutions (HEIs) as portrayed by newspapers, particularly during times of a global pandemic, particularly COVID-19. This chapter addressed the question: *What sustainable pathways for short learning programme (SLP) provisioning can be suggested to address access inequalities amid a national health crisis as reflected in South African newspapers?* To avert the potentially devastating effect of the COVID-19 pandemic, whilst still retorting to students' needs, HEIs must consider a kaleidoscope of approaches and implement strategies to effectively deliver online teaching and learning using digital technology. Having applied discourse analysis to articles that appeared in an array of South African newspapers, the findings revealed that access to digital technology and competence in digital literacy might afford HEIs an opportunity to address challenges experienced by SLP students. The findings reveal further that a consideration of such pathways may increase students' access, confidence and performance in online learning activities.

**Keywords:** access, digital technology, conceptual analysis, sustainable pathways, short learning programmes, COVID-19

## 1. Introduction

Historically, HEIs were regarded as institutions with immediately available knowledge, conveying it from reasonably elite spheres of information construction to student masses [1]. The goal of HEIs was large to ensure a reasonably precise replication of thoughts formally categorized as knowledge in classroom settings. Democratic societies in the twenty-first century, however, required that HEIs become centres of teaching and learning for self-directed and capable learning for knowledge producers across the entire social continuum. The objective of preparing students to become independent knowledge creators and thus more relevant social actors required a shift from general classroom teaching and learning to a more social educational platform referred to as distance teaching, particularly through the provisioning of short learning programmes (SLP), amongst others [1]. In this context, the shift from learning

in class and learning through online platforms allowed HEIs to bridge the gap in how education can be provided to people [2, 3].

SLP offers prospects for individuals to engage in continuing learning because it considers the notion of situated pedagogy as it has a sturdy bond with real-world connections and with social and specialized [4]. Such connections create connections to prevailing working practices and are aimed at dynamic interventions by participants. Moreover, it is in congruence with workplace settings because trainees bring an affluence of knowledge to the education setting, which may be combined with knowledge from their courses [1].

Digital technology use enhances students' SLP experiences by accessing learning opportunities and instructional approaches they could benefit from. For example, teaching and learning can be customized in terms of content and speed, cooperative and problem-based learning models, and encouraging discussions on their work-based experiences [5]. Furthermore, in HEIs globally, digital connective technology permits students in SLPs to extend learning beyond universities through comfortable and augmented learning experiences using online communities on platforms such as social media and other social platforms [6]. As such, print books and encyclopaedias in the conventional sense are no longer the solitary holders of information, but the information is now spread through the network of linked digital technologies that are intended to provide access ubiquitously, at any time and wherever such networks are probable [7, 8].

Although information and communication technology (ICT) allows several SLP participants to maintain successful and fulfilling lives, countless students in South Africa and worldwide, experience limited access to digital technologies [9]. Differences in exposure to and use of ICT have contributed to the multifaceted, unsolidified concept, the so-called digital divide, often associated with prevailing social disparities [10]. The digital divide has significant concerns: whilst a poorer group of SLP participants may have these experiences, there is a second digital gap in how students from different socio-economic backgrounds use technology [11, 12]. Additional dimensions of digital inequalities include the availability of apparatus, freedom of use, skills, social support, stimulus, commitment and approaches [11, 12].

Similarly, the outbreak and spread of the novel COVID-19 pandemic have contributed to more educational inequities in HEIs globally, forcing universities to institute lockdown measures by closing their doors to contain the spread of the virus. The lockdown process, according to South African newspaper reports, emphasized the existing digital divide within the SAHEIs [13–18]: access to ICT; differences in HEIs within the same country; differences in resources; and differences between students participating in SLP in the same HEIs (those who live in towns and those in rural areas; access to the Internet, when and if it is available). It seems as if access to digital technology has become imperative to ensure the successful provisioning of SLPs, for both providers and students.

## **2. Digital technologies for SLP provisioning in the twenty-first century**

The twenty-first century, described as the Age of Information and digital technology including Google, Microsoft, Apple, eBay and Amazon, amongst others, are just a few examples of how technologies have changed our way of life, communication, thought and social skills [19, 20]. Aside from shifting the actions of individuals, emerging innovations such as computers, smartphones, video games and Internet

search engines are reshaping knowledge construction in that learning, unlearning and re-learning have become the slogan of modern-day education [21]. Digital technology-based teaching and learning strategies, for example, may open opportunities to design new curricula and assessment methods to meet the didactic goals of HEIs [22].

In a study on the relevance of learning with digital technologies in HEIs in Nigeria, Ibrahim [23] found that ICT provides countless benefits whilst enriching the magnitude of the teaching and learning process in HEIs. In another study, Young's [24] research showed that students appreciate the opportunity to pursue education anywhere using education technologies. This versatility has increased learning opportunities for many students who had previous experience disparities in access to digital technology for learning. Finally, the study by Paul and Lal [25] explored the adoption of new technology in education and its impact on students in and around Delhi, India. The results indicated that there is a positive correlation between the strength of digital technology use in SLP programmes and its effect on knowledge generation, learning confidence and performance amongst students [25].

### **3. Disproportions of access arising from the increasing use of online learning**

In an initial use of the word, the digital divide denoted “the gap between those who do and those who do not have access to new forms of information technology” ([26], p. 221–222). Inopportunistically, policy-makers tend to describe the divide by a particular characteristic, generally access, which provides a twisted depiction of the issue. Irrespective of how constricted the gap may seem, technology and its influence on world citizens' lives are increasing, resulting in serious consequences due to the intensification of the digital divide [27, 28]. For the purposes of this chapter, discussions of inequities arising from the increasing use of online learning will be centred on the issue of the digital divide based on access and digital literacy.

#### **3.1 Inequities in access during participation in SLP**

Albeit a compendium of research on the inequity of access to digital technology, we draw on Goedhart et al. [29], whose study showcases three points of the digital divide in terms of access and which can be regarded relevant to individuals' level of participation in SLP in HEIs. Firstly, there is a difference between individuals who have and those experiencing challenges regarding access to digital technology. Notably, the gap pertaining to the digital divide seems to be declining. A growing proportion of individuals have gained access to ICT in the last decade, be it in the office, at home, in educational institutions, public libraries or public centres. Secondly, the digital divide emphasizes that ICT use is not guaranteed although access to digital technology might be possible. Research into the second-level digital divide also clarifies the inadequate use of ICT as a result of fundamental public disparities [9, 30, 31]. Individuals' revenue, schooling, literateness and gender are considerably (indirectly or directly) related to physical access, ICT abilities and usage variety [31, 32]. Thirdly, not only are the reasons for ICT use considered, but the consequences related to ICT use are also considered [10, 33, 34].

The afore-going explication is useful in considering the interrelatedness of digital and social inequities in terms of access [29]. For instance, inequalities to access in terms of barriers to digital technology use are associated with issues such as

affordability, linguistics [35, 36], poor ICT literacy [35], lack of awareness [37], time constraints [37] and cultural dissimilarities [36].

### **3.2 Challenges of digital literacy in higher education**

Few scholars agree that digital literacy in HEIs should include a critical understanding of the context of information, media and knowledge production—including not only the limitations and constraints imposed by the design of digital tools, but also the social, legal, political, economic and cultural constraints of the media [38, 39].

Students who develop digital literacy as an integral part of their learning achieve academically in terms of the benefits afforded by digital literacy and are more employable on graduation. Students who are digitally confident can combine numerous inventive educational practices such as flipped learning, digital curation, m-learning techniques and open scholastic resources to their maximum advantage [40]. However, given the propensity that digital literacy requires particular skills, students may experience challenges due to a lack of understanding underlying structures of how information is organized on the Internet [41].

Another challenge may be a lack of understanding information across multiple perspectives and assessing the validity of digital sources [42, 43]. Experiencing such challenges may lead to students creating a particular mindset regarding digital literacy competence in SLP, as they may not value the role of thinking as a component of technology use. Students may also not appreciate that learning with technology is grounded in an ongoing process of inquiry and one's ability to create a pathway for personal learning by searching, assessing and curating information in a complex and often overwhelming digital environment [44, 45].

In the South African context, challenges with and access to digital literacy may signify inequalities within cultural groups, between urban and urban spaces and differences in income which can further intimidate the already marginalized class of individuals [46, 47]. Inescapably, digital marginalization leads to a division of knowledge and limits opportunities for intercultural communication, understanding and networking [48]. Given the undesirable effects of the digital divide on economically deprived and other ostracized groups [47, 48], the gap in digital access and digital literacy should be viewed as critical issues that have consequences for SLP teaching and learning.

## **4. Implications for teaching and learning in SLP**

With its uneven access to electronic tools and abilities, the digital divide implies that hastening to proliferate the provisioning of SLP online would only broaden current inequities. It becomes important to recognize the challenges distance and online learning present to lecturers and course providers. The COVID-19 pandemic has upturned course programmes and online presence, disturbed learning and teaching, exasperated assessment and formal and informal examinations, postponed endorsement of qualifications and will probably affect the careers of many students registered for SLPs. As such, organizing financial and financial resources during times of crises is vital to guarantee complete access to digital technologies and contemporary education tools in the HE domain [49]. Furthermore, managers, learners, programme planners and lecturers must be trained to ensure their willingness to be involved in

expanding digital knowledge. As such, SLP providers need to revisit teaching and learning models to make the best use of digital resources and tools to benefit SLP participants [50]. Two kinds of divide, namely the *socio-economic divide* and *access and the use of ICT*, have implications for SLP in HEIs.

#### **4.1 Implications for SLP provisioning from the socio-economic divide**

The use of digital technology is rooted in a socio-cultural context, and as such, students already enter HEIs with a socio-economic deficit [51–53]. This fact is supported by public press opinions in South African newspapers, denoting:

*“the socio-economic dimension of the student body needs to be expounded”* ([15], p. 1); and *“disparities among their students from different socio-economic backgrounds, who struggle to access the digital world”* ([13], p. 2).

These perceptions confirm the existence of the socio-economic divide, which may be resultant of the uneven distribution of benefits of ICT, which in turn derives from the use, investment and infrastructure of information technology, amongst others [20, 54, 55]. In countries such as Finland and the United States, the socio-economic divide is correlated with demographic variables such as education, gender and age, as well as computer experience and micro-computer use training at the individual level [54].

Some implications for teaching and learning in SLP provisioning may be derived from the socio-economic divide indicated in South African newspapers. The socio-economic divide suggests that students with less resources and inadequate external help face restricted options and decreased capacity to make successful educational decisions [56, 57]. As a result, socio-economic contexts shape the academic experience of students and how they comprehend themselves and the opportunities accessible to them [58, 59]. In the same way, socio-economic contexts may direct students' thought in systemic ways with implications for educational objectives. In particular, students' experiences with access to more socio-economic resources may indicate that they will have access to increased opportunities for development and growth than students' familiarities in environments with less socio-economic assets [60, 61].

#### **4.2 Implications for SLPs derived from access and the use of ITC**

The second kind of digital divide in this chapter is understood as the variances in the construction of ICT use and access, keeping in mind how long-standing social inequities influence perceptions and prospects about educational opportunities [62, 63]. This notion is supported by phrases in South African newspapers that portray the seriousness of digital inequalities:

*“poor internet connection”* ([14], p. 1); *“no capacity to guarantee”* ([15], p. 1); *“frustrating internet delays”* ([16], p. 1); and *“limited or no connectivity access”* ([17], p. 1).

First, students from disadvantaged populations are similarly deprived of the Internet, with limited access to technology, limited opportunities for use and a lack of important digital skills [64–66]. Second, apparatus inequity recounts conflicting levels of technical and physical proprietorship and access based on the existence

and appropriateness of connectivity, software and hardware [67, 68]. Third, spatial inequalities include dissimilarities in digital exposure and involvement between people from rural and urban areas [69]. As a result, students from marginalized population groups do not benefit from teaching and learning opportunities to the equal degree as more advantaged groups [10, 70].

## **5. Towards initiatives to address SLP provisioning challenges**

SLP provisioning typically has the following characteristics: a partnership between learners who are working in an organization outside the boundaries of HEIs; a programme for learning resultant from the wishes of students relevant to their jobs; students involved in a practice of acknowledgement of their present competencies, skills and knowledge; learning that takes place as an incorporated portion of responsibilities finalized in the workplace; and learning that is assessed by an HEI [71–73]. As such, whilst SLP providers should support students beyond the original distribution of academic material, HEIs with current or synchronized industrialized experience should provide pathways to ensure the continuous delivery of SLP amid the COVID-19 pandemic.

The role of supporting students through complicated and difficult situations (such as COVID-19) has often fallen to faculty and staff. Staff members of HEIs have been on the front lines of responding to the broad array of student needs. Considering the future, and even if a situation that resembles a pre-pandemic higher education is plausible, it is likely that HEIs will have a sharpened appreciation and knowledge of the obstacles and learning challenges that their students face. Therefore, our suggestions, for sustainable pathways to ensure ongoing delivery of SLP amid a national crisis, derived from a conceptual analysis of views in South African newspapers in the beginning of the country's lockdown period. The views in the newspapers are relevant to the aim of this study.

## **6. Research methodology**

In answer to the research question, a conceptual analysis was conducted in which concepts terms, definitions and theories relevant to the research question were explored. A conceptual analysis assists in clarifying the essential features of thoughts and has the potential to elucidate concept design and find explanation regarding the meaning and analysis thereof. As such, concept analysis can be explained as the clarification of the significance of any concept in appreciating meanings about the world and ourselves in relation to a system of additional concepts or learning of what the concept signifies [74, 75].

Whilst conceptual analysis seems to search for reasonably necessary situations in line with the use of concepts, it is also crucial to note that the meaning of other concepts, in relation to concepts to be analyzed, should be bore in mind ([76]; Pirttimäki, 2007 as cited in [77]). We argue that scrutinizing a concept should not be considered similar as describing a word. Analysis aligns with exploring ideas and comprehending concepts rather than only trying to provide delineations of concepts [76, 78]. In research on conceptual analysis of institutional culture, Van Wyk [79] states that a dissimilar but associated manner of explicating a concept is to construct constitutive meanings.

Thus, “when a concept is analysed, the researcher tries to absorb or get inside the viewpoint it represents as a whole and then develop a deep understanding of how its parts relate to the whole” ([80], p. 68). Therefore, the constitutive denotation of a concept cannot be regarded as obvious or simple. Constitutive meanings, therefore, seem to be uncomplicated notions regarding the analysis of concepts to construct meaning. With the latter in mind and taking a hint from Taylor [81], the use of concepts, as derived from views in South African newspapers, can be considered relevant to this study because we intend to put forward suggestions to address SLP provisioning challenges experienced by coordinators and developers amid COVID-19 and beyond.

Fundamentally, conceptual analysis is an effort to acquire knowledge about the uncomplicated tools of understanding concepts, ideas and terms [78]. To gain profound knowledge of what concepts may denote, scholars should distance themselves from the language in texts and not attempt to look accurately at whatever they think is referred to by concepts. Academics, therefore, need to: “bend their focus away from the object of analysis and back onto their own thinking processes in order to become self-consciously aware of the apparently transparent or neutral tools of thinking, understanding and grasping the world that, understands the key concepts of the research field” ([78], p. 425). Du Toit’s [78] observation regarding concept analysis has a dual interpretation. First, “the meaning of a concept that emerges from the analysis of its actual use is potentially very rich and multifaceted” ([78], p. 428). Second, we argue that a conceptual analysis may be beginning to expose manifold meanings of concepts used in this study.

## 6.1 Sustainable pathways for SLP provisioning

Whilst COVID-19 is a temporary crisis, we argue that it should serve as a wake-up call for HEIs to utilize ways to ensure the provision of flexible educational delivery modes that serve diverse populations of learners. Consequently, we intend to suggest useful practices, which may assist SLP providers in HEIs to deal with inequalities from the increasing use of online learning, given that COVID-19 has no cure and, thus, the length of its effect is unknown. The suggested practices will be derived from concepts in South African newspapers published during the country’s lockdown period and reported on matters regarding online teaching and learning (**Table 1**). The suggested practices will be articulated by means of a conceptual analysis using the following steps [82, 83]:

- developed a pre-defined set of categories—in this chapter, two sets of characters are deemed imperative: “*enabling conditions to increase access*” and “*enabling conditions to foster digital literacy*”;
- translation rules—our rule is that only concepts that has reference to “*access*” and “*digital literacy*” will be extracted from the newspaper articles;
- irrelevant information will be ignored—words like “and” as well as “like”, as they appear by themselves, will be ignored; and
- analysis of concepts towards sustainable pathways for SLP provisioning.



Set of categories	Extracted concepts and phrases	Occurrence (from 07 newspapers)
Enabling conditions to increase access	connectivity	7
Enabling conditions to foster digital literacy	tech-savvy capabilities	3 4

**Table 1.**  
*Concepts for analysis from newspaper articles.*

## 6.2 Enabling conditions to increase internet access

We argue that Internet access is an ethical human right that entails that everyone has unmonitored and unrestricted access to this international medium, which should be overtly provided at no cost, especially to those not able to afford it. Rather than being a mere extravagance, access to the Internet should be regarded as an international right because people need to lead minimally decent lives in terms of connecting with others and information in this world [84].

When “connectivity”, significant for Internet access, is highlighted as extremely important for participation in SLPs, Ropolyi [85] educates us that “connectivity” is associated with a particular type of system called a network, which consists of computers that are interconnected and operated in a way which secures the freedom of information of the individuals connected to the network. Individuals become connected when they are able to acquire information in their own space, time and context. West [86] warns that to increase Internet access through “connectivity”, one should bear in mind that it is not just a matter of adhering to administrative regulations. Rather, HEIs should introduce innovative caching techniques and data compression that make broadcasting systems function more powerfully [86]. HEIs can do this through negotiations with network suppliers to provide lines that help automated signals travel reasonably fast, reformatting file servers and installing open-source hardware.

Drawing on West [86], two approaches to improve access through “connectivity” may involve:

- Refining digital structures, particularly in distant rural areas. For example, Google’s Project Loon tries to stimulate access through balloons. Engineers launched 30 balloons over New Zealand in 2013 to test the prospects for connectivity. As a result, people received antennas so they could access the Internet through balloons. The company has now broadened its experiments to include other nations.
- Development of a well-scaled and strong online system—a condition of an effective digitalisation approach is a strong and practical network. Such a network, which is the mixture of the research network and campus networks linked to nationwide and transnational circulation interactions, must be repeatedly developed as a whole and modified to meet the requirements of augmented flexibility, new services, mounting data capacities, the use of in-house services (including systems for study and research administration), unrestricted cloud structures and increased criticality.

If HEIs should address the issue of “connectivity” as suggested above, Internet access becomes the capacity of SLP participants to easier link to the Internet using computer depots, computers, and other devices; and to access amenities such as email and the World Wide Web from anywhere.

Whilst working towards improving “connectivity”, HEIs should consider the following actions, which may be regarded favorable to ensure that SLP developers and participants have increased access [45] to SLPs:

- Communicate to students the minimum technology needed to continue in the programme;
- Provide students with already available resources (at the institution or across different institutions);
- Create a common digital space to share all resources and specify the range of internal and external support available; and
- Provide students with the information on where to seek ongoing technology support, using a digital frequently asked questions (FAQ) list with screencast tutorials customized to user needs.

In creating enabling conditions to increase access to the SLP, HEIs should also develop ways to support students with limited knowledge of how to use digital technology and where to find assistance, if necessary.

### **6.3 Enabling conditions to foster digital literacy skills**

An immediate association with “*tech-savvy*” and “*capable*”, as extracted from the newspaper articles, can be found in Alexander et al. ([87], p. 4) when they argue that digital literacy comprises of “not only skilled” but “capable” digital users in that they are afforded competencies to triumph over challenges. A combination of definitions compiled by a few international universities explained digital literacy as a skill to use digital technology, communication apparatuses or systems to trace, assess, use and create information [88, 89]. Internet users should also be able to understand and use information [90, 91] in manifold arrangements from a comprehensive variety of sources when it is accessible *via* computers. The aim would be to facilitate the expansion of student competences to steer a multifaceted information landscape [92]. The concepts “*tech-savvy*” and “*capabilities*” are explained in terms of “*to use*” because it includes skills such as reflective practice, student-centred learning, student engagement and experiential learning, amongst others [93].

We draw on the works of Hobbs et al. [45] and McGuinness and Fulton [94] to suggest sustainable pathways to foster digital literacy. HEIs may consider the following:

- Create a website, easily accessible to students and SLP developers to share ideas and tutorials;
- Curate a list of high-quality basic tutorials, all available in one place (categorized and searchable by course, programme and discipline);

- Create opportunities to discuss and share how and why students and providers are using technology and how to integrate digital literacy skills—for instance, teaching and learning with technology communities of practice, lunch and learns or show me your work sessions;
- Provide digital and live drop-in hours for students and providers to get support in teaching and learning regarding the use of technology; and
- Build digital literacy development into the early part of students' curriculum through general education courses.

## 7. Concluding remarks

This chapter's significant contribution has been offering alternative insights into access to digital technology for SLPs in HEIs, especially during a pandemic like COVID-19. The chapter answered the research question: Having applied discourse analysis to South African newspaper articles, the findings revealed that a HEbDP might allow HEIs to reflect on actions to address challenges experienced with access to digital technology solutions. Such a plan implies that HEIs (a) should rethink how digital transformation may be implemented, (b) be cognisant of the different ways students learn and ultimately provide support to them; and (c) should plan towards digital sustainability for the ongoing supply of technologies that transmit, use, create or source electronic data for SLPs.

Importantly, the study has implications for implementing recommendations in the short run because HEIs should fervently explore various options to ensure students in SLPs have access to digital technology. Another implication is that programmes in HEIs should be tailored in a short time to capacitate students on how to prepare themselves for online learning. An important avenue for future research could be an analysis of student voices regarding their experiences regarding access to digital literacy in higher education during COVID-19. It would also be interesting to explore how governmental procedures and managerial choices might affect authority within HEIs as regards digitalization in the viva.

## Objectives of the chapter

- To investigate how students experience, in terms of South African newspapers, the existing demand on digital technology access arising from the increasing use of online teaching.
- To explore, unabridged, the implications of potential disparities in digital technology access for learning and teaching in SLP in HEIs.
- To propose sustainable pathways for SLP provisioning to address access inequalities amid a national health crisis as reflected in South African newspapers.

## Key concepts

**Access**                                      acquiring or recovering information deposited in a computer's memory

<b>Capabilities</b>	ability to do something
<b>Connectivity</b>	the state of being connected or interconnected.
<b>COVID-19</b>	a disease caused by a new strain of coronavirus
<b>Digital literacy</b>	capacity to use ICTs to discover, appraise, generate, and communicate information, necessitating both intellectual and practical skills
<b>Digital technology</b>	automated apparatuses, structures, devices and resources that produce, store or process data.
<b>Inequities</b>	lack of fairness or justice.
<b>Learning</b>	acquisition of knowledge or skills through study, experience or being taught.
<b>Online learning</b>	learning that takes place over the Internet
<b>SLP</b>	a course usually aimed at (working) adults and are designed to upgrade specific knowledge or skills in a short amount of time
<b>Teaching</b>	process of attending to people's needs, experiences and emotions, and intervening so that they learn specific things, and go beyond the given.
<b>Tech-savvy</b>	well informed about or proficient in the use of modern technology, especially computers

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