

RELATE Report 1: Annotated Bibliography and Literature Review

2023



Annotated Bibliography and Literature Review:

Sources which provide insights into responses to the COVID-19 pandemic by higher education institutions (HEIs) with respect to teaching and learning, focusing on pedagogy, teaching and learning, and assessment.



TABLE OF CONTENTS

	Page
1. Annotated Bibliography and Literature Review	1
Introduction	1
Scope	2
Methodology.....	3
Analysis.....	5
Limitations	6
2. Discussion of Findings.....	9
i) Reviews and bibliographies	8
ii) Surveys	9
iii) Pedagogy and learning and teaching practices.....	13
<i>Emergency Remote Teaching versus Online Learning</i>	13
<i>Pedagogical practices</i>	14
<i>Digital teaching and learning</i>	16
iv) Institutional responses.....	18
v) Rigour and integrity	22
3. Conclusions	25
REFERENCES.....	27
ANNEXURE A: Annotated Bibliography	1
ANNEXURE B: Summary of recommendations from surveys and reviews...	33

1. Annotated Bibliography and Literature Review

The Council on Higher Education's 'Reimagining Learning, and Teaching' (RELATE) meta-project has the broad purpose of reimagining learning and teaching futures in higher education, post-pandemic, post-disaster and post-disruption, and of developing some of the tools – including the quality assurance artefacts and capacity development initiatives – that are required to support learning and teaching in these futures.

The overarching questions that the RELATE Project will explore include the following:

- How have students and lecturers experienced the significant changes in the learning, teaching and assessment environment, and what lessons can be drawn from their experiences?
- What have been the consequences of the shifts on equity and quality of education provision?
- What are the new realities that are likely to continue post-crisis and post-pandemic?
- What policies, frameworks, guideline documents, processes, etc. need to be revised, developed and/or implemented in order to be enabling of new learning and teaching realities/futures, while also ensuring equity and quality of provision?

This report is a literature review of sources which provide insights into responses to the COVID-19 pandemic by higher education institutions (HEIs) with respect to teaching and learning. The review focuses on pedagogy, teaching and learning, and assessment. The annotated bibliography is presented as Annexure A.

Introduction

The COVID-19 pandemic has affected nearly 1.6 billion learners across more than 200 countries. Closures of higher education institutions (HEIs), schools and other learning spaces have impacted most of the world's student population. Social distancing and restrictive movement policies have significantly affected educational

practices. The reopening of institutions after the relaxation of restrictions presented another set of challenges, with many new standard operating procedures needing to be put in place.

The Council on Higher Education (CHE) in South Africa conceived a meta-project to assist with rethinking how universities might operate in the future by building on what has been learnt during the pandemic. The 'Reimagining Learning and Teaching' (RELATE) meta-project has the broad purpose of reimagining learning and teaching futures in higher education after the pandemic, the state of disaster, and the associated disruptions. A further purpose is to develop some of the tools and interventions, such as capacity development initiatives and quality assurance artefacts, that are required to support learning and teaching in these futures.

Within the RELATE meta-project there are several research sub-projects. One of these is the subject of the current report: *Emergency remote learning and teaching/ multimodal learning and teaching/ online learning and teaching/ blended learning and teaching: A Bibliographic Study and Literature Review.*

Scope

The scope of the bibliography covers emergency remote, multimodal, online, and blended teaching and learning processes.

The initial research questions for the literature review were as follows:

- In what ways have responses by institutions to the pandemic resulted in changes to learning and teaching practices and pedagogy?
- What are likely to be the long-term impacts of institutional responses in terms of learning and teaching for undergraduate and postgraduate provision?
- How should institutions approach academic rigour with respect to pedagogy and assessment?

As the review progressed and evolved, the findings deviated slightly from the original ideas, and the results are presented in sections similar, but not identical, to the initial research questions. The searches for literature to populate the bibliography and the review produced a very large number of items. In the main, these were published

and peer-reviewed papers, some conference papers and policy documents, and also a number of blog posts, opinion pieces, and other 'news'-type pieces. In addition to the peer-reviewed papers, the researchers drew selectively on non-peer-reviewed items, especially where reputable experts are involved. As agreed with the RELATE Peer Advisory Group established to provide guidance and oversight on the sub-projects, the following items were deemed to be not in scope: teaching resources, social media posts, and media resources not written by experts.

Methodology

Online searches were conducted based on the following criteria: 'emergency remote teaching'; 'online learning', 'remote learning', 'blended learning', and other related concepts. As many South African publications as possible were sourced, including unpublished work where this was possible to obtain. The searches were run via the Google search engine, and also included Google Scholar, ResearchGate, the Education Resources Information Center (ERIC), and the Sage Journal platform. A number of open access journals in the educational technology field were earmarked and, where possible, journals that have significant contributions from scholars in contexts similar to that of South Africa were identified. The searches included the following databases and journals:

- SciELO SA
- African Journals Online
- International Journal of Information and Education Technology
- International Journal of Educational Technology in Higher Education (ETHE)
- Educause Review, online
- TechTrends
- The International Review of Research in Open and Distributed Learning (IRRODL)
- International Journal of Education and Development using Information and Communication Technology (IJEDICT)
- First Monday, peer-reviewed journal on the internet
- International Journal of Emerging Technologies in Learning

- International Journal of Scholarship for Teaching and Learning
- Journal of Learning for Development

Individuals at the appropriate level in South African universities were also contacted to obtain access to unpublished reports, policies, and other grey literature.

Criteria were developed for selecting and rejecting items for the Annotated Bibliography, as shown in Tables 1 and 2.

Table 1: Inclusion criteria

Must involve COVID-19 and higher education as a main topic of research or discussion.

Must discuss COVID-19 and emergency remote teaching/ online learning as the primary component; criteria are based on the overarching questions of the RELATE project:

- *significant changes in the learning, teaching and assessment environment;*
- *shifts on equity and quality of education provision;*
- *new realities that are likely to continue post-crisis and post-pandemic; and*
- *policies, frameworks, guidelines, documents, and processes that need to be revised, developed and/or implemented.*

The articles/sources may have been published anywhere in the world.

Unlike some other reviews produced over the past two years, it was decided to include (in addition to peer-reviewed articles, book chapters, and books) blog posts, news pieces and opinion pieces, as it was held that such literature could provide the RELATE meta-project with valuable ideas.

Table 2: Exclusion criteria

The data provided, or the focus of the data, is not from 2020 to 2022 (with special exceptions).
Papers that discuss higher education settings but do not link with COVID-19.
Studies in languages other than English with no English translation.

Analysis

A narrative review (Ferrari, 2015) was conducted, in which qualitative methods were used to synthesise new interpretations across a range of studies. The various selected papers were treated as cases, read through carefully several times, and then categorised into themes based on the research questions and inductively identified sub-themes. As additional papers were scrutinised, they were classified into existing sub-themes, or new ones were developed. The examination of new papers continued until saturation was reached, at which point additional data did not provide substantially new findings.

A number of papers are highlighted in the findings below. Such papers were chosen for their relevance to the inclusion criteria as well as their contribution to useful lessons learnt and their recommendations.

The selection process for identifying the relevant literature described above resulted in a total of 126 items, which are summarised in Annexure A. We found that the quality of the papers varied considerably. To some extent this is not surprising, as the items range from fully refereed articles, through book chapters, to blogs and opinion pieces. A number of papers were selected for discussion in the findings below, based on their relevance to the RELATE meta-project, and the overarching research questions. Many of the papers focus on South Africa, and while some are global in nature, they have relevance to the Global South and the South African context, hence their inclusion.

Limitations

The main limitation for this review was the time available to complete it. Research takes time – not only to find and document articles and other items, but to consider the implications of the findings. As new articles were read, still further ones were seen in their reference lists, yet the researchers were bound by the time scale of the research, so were unable to follow them all up. Quite a bit of literature relevant to the review is only being published now, especially some of the more rigorous, peer-reviewed items, which have spent longer in review.

A second limitation was that of gaining access to and reading some of the items. Several of the more recent publications are not available online, even via university access. Books made up 17% of the literature, but were not all able to be read due to time constraints and availability. In addition, although some were freely downloadable, others were costly.

The integrity of all journals in which articles were found has not been evaluated, so there may be some items in the bibliography that are not as rigorous as ideally would be preferred. This limitation might also apply in some cases to books that have been included.

Finally, accessing grey literature was not very easy, as not all institutions responded to requests for information, and many sent material just a few days before the deadline for the review report. Time also precluded satisfactory investigation of university repositories - for example, the University of the Witwatersrand repository <https://wiredspace.wits.ac.za/>. These repositories are further sources of possible unpublished papers and policies.

2. Discussion of Findings

Findings are arranged into five sections. The first two sections are as follows: (i) reviews and bibliographies, and (ii) surveys. These are followed by three themes which are based loosely on the research questions: (iii) pedagogy and learning and teaching practices, (iv) institutional responses, and (v) rigour and integrity.

Figures 1 - 3 show the breakdown of literature by year, geographical focus, and type of item.

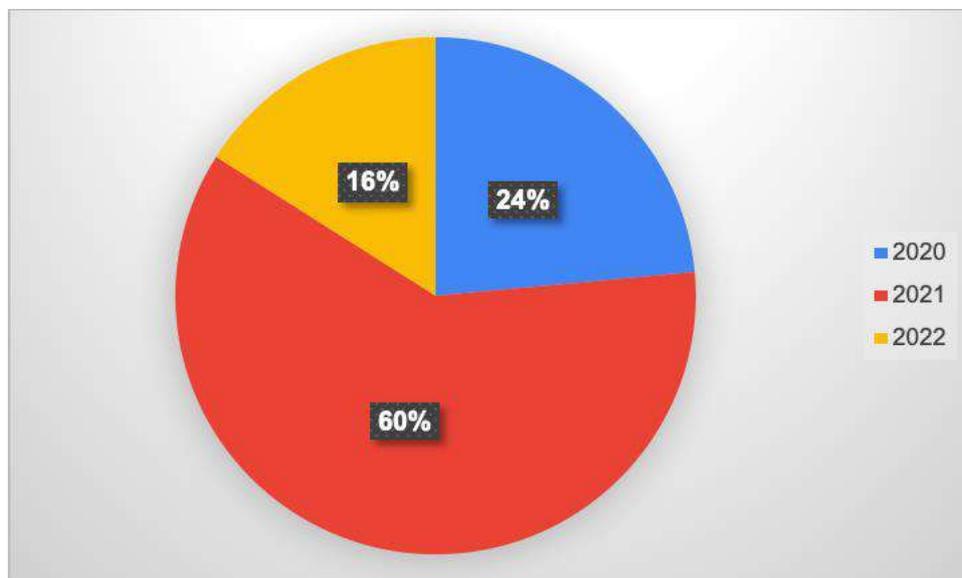


Figure 1: Breakdown by year

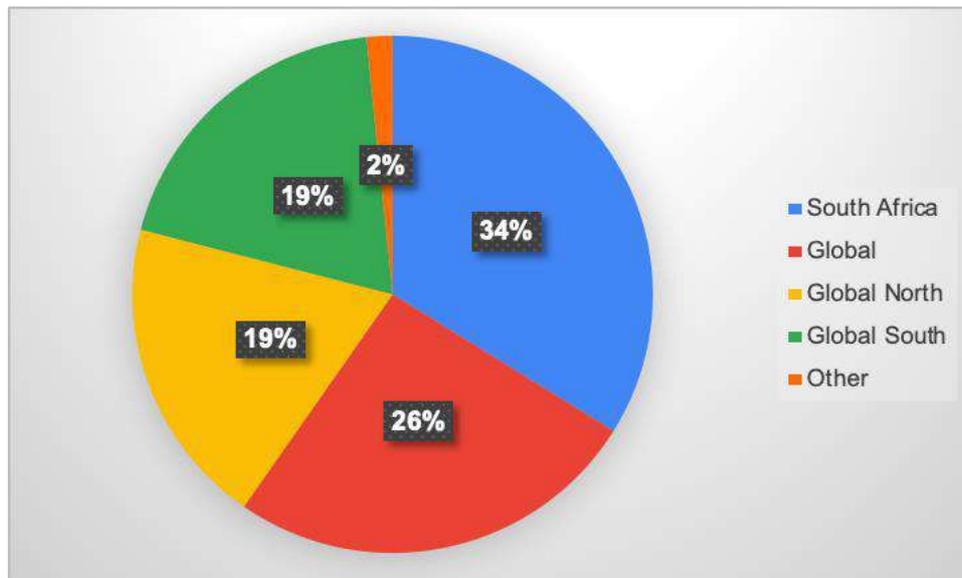


Figure 2: Breakdown by geographical focus

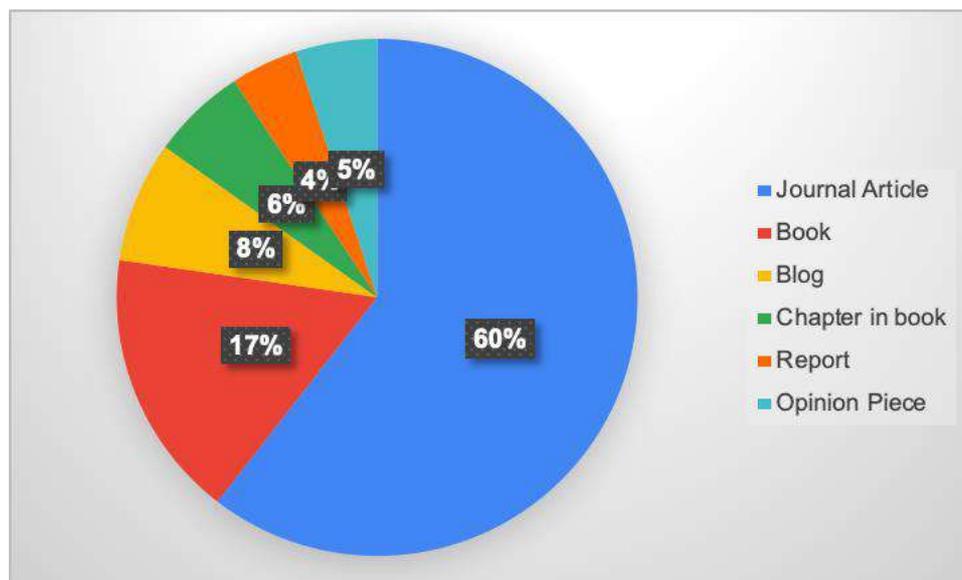


Figure 3: Breakdown by type of item

i) Reviews and bibliographies

This section covers literature reviews and a database of publications produced between 2020 and 2022.

It was expected that the search would find a number of extant literature reviews on the COVID-19 pandemic in relation to teaching and learning, but this was more

difficult than predicted and only five reviews were identified. Pokhrel and Chhetri (2021), despite its title, '*A literature review on the impact of the COVID-19 pandemic on teaching and learning*', is a relatively short (eight-page) summary of global literature produced during 2020, and is by no means extensive or comprehensive. More substantial is the review by Mseleku (2020), which lists a literature of 85 studies conducted globally in 2020. It provides a short analysis, but little in the way of recommendations. The rapid review by Khan (2021) categorises published peer-reviewed articles into five key themes: "(1) digital learning, (2) e-learning challenges, (3) digital transition to emergency virtual assessment, (4) psychological impact of COVID-19, and (5) creating collaborative cultures" (p. 1). These themes resonate with those of the current report. Of the 39 studies discussed, only one was from South Africa, but Khan also provides a useful summary of key suggestions for institutions going forward (included here in Annexure B). Abu Talib, Bettayeb & Omer (2021) produced a systematic literature review on the impact of technology in higher education during the pandemic, and included quality criteria, with the result that 47 papers were selected for review. The authors developed five themes: impact of the transition from traditional classrooms to technology-based learning (in 53% of papers), the student experience (38%), proposals and/or experiments with a remote teaching method (8.5%), policy (6%) and equity (4%). The paper provides ten recommendations for technology in higher education (also included in Annexure B). The work of Butler-Henderson and colleagues (e.g. Butler-Henderson et al., 2021a & b; Crawford et al., 2020) is potentially useful, and refers to the COVID-19 Higher Education Literature Database ([CHELD v2](#), a spreadsheet downloadable from a ResearchGate site). The database covers 739 items, but has not been updated since December 2020, so is not current.

ii) Surveys

This section covers surveys carried out in 2020 and 2021 that provide institutions with background information for planning and research purposes.

In order for the RELATE meta-project to achieve its aims, it needs to be informed by surveys of academic staff and students which have been undertaken during 2020 to

2022. The annotated bibliography (Annexure A) lists more than ten studies that included surveys.

We selected six reports and papers that can support the other components of the meta-project. For the South African context, two surveys are key: the Department of Higher Education and Training's '*Students' Access to and Use of Learning Materials (SAULM)*' survey (DHET 2020), and the 2021 CHE, Universities South Africa (USAf) and the University of the Free State's '*Staff Experience and Perspectives of Teaching and Learning and its Future*' (SEP-TLF) survey (CHE, USAf and UFS (2021)). Both surveys provide crucial data for planning how teaching and learning could be implemented going forward.

The SAULM survey collected quantitative data from 49,981 respondents, and qualitative data amounting to 3,672 pages of text. It covered access (devices, data and connectivity), engagement with technology, associated learning benefits and challenges, and implications for policy and practice. A key finding was that network connectivity, data and devices presented the most serious obstacles to engaging with remote learning, while electricity provision, study space and skills with devices were also significant. On the positive side, students appreciated the convenience of asynchronous learning regarding time and travel costs, learning new skills, communication, and becoming more independent learners.

The SEP-TLF survey, which complements the SAULM survey, was completed by 1,851 academic staff (only about 3.4% of the possible respondents), with nearly two-thirds from traditional universities, so – despite considerable effort - it is by no means representative of the sector. It provides a snapshot of the views of these academic staff, but it is likely that many of the concerns expressed are exacerbated in historically disadvantaged universities.

The survey focused on three aspects: staff experiences during the pandemic, staff views of the future of teaching and learning, and academic leaders' experiences and views. Academic staff experiences can be broadly summarised as negative, with concerns about their own wellbeing and burnout. While they understood their students' challenges with connectivity, devices, and cost of data, they were frustrated by low levels of participation and engagement. Views on the quality of

teaching and learning varied from 'satisfactory' to a 'clear decline'. Several comments identified academic integrity as having been compromised by students. The negative view is supported by a recent blog post by Tony Bates, an eminent international distance-education teaching and learning specialist, in which he asks if online learning has "gone backwards because of the pandemic" (Bates, 2022). He is concerned that the majority of academics have not changed their methods of teaching, but instead rely on lectures or posting content on a learning management system. This issue is discussed further in the pedagogy section below.

Lecturers' views on the future of teaching and learning were very varied, but included recognition of the value of a data-driven approach, and the need for face-to-face experiences for students. Concerns around the integrity of assessments dominated the responses, along with the need to institute quality assurance measures. Other areas included the need for staff training in online and blended pedagogies (but not a formal qualification), digital skills, and mastering learning management systems. The positive experiences noted included understanding their students' challenges better, rethinking their teaching and learning philosophies, and making use of new digital tools.

The responses of academic leaders and managers mirrored those of the lecturing staff, although they also included a loss of control and feeling out of touch with their colleagues.

Both reports made recommendations at a fairly high level, summarised in Annexure B.

Although the remaining four surveys described here are included in papers reporting on single institutions, they provide more detail on the experiences of staff and students, and each has relevance for the RELATE meta-project.

Landa, Zhou and Marongwe (2021) report on a case study which documents intervention strategies developed by two universities in the rural Eastern Cape. While the universities had developed online teaching and learning policies as the pandemic unfolded, the staff and students experienced challenges similar to those reported in the SAULM and SEP-TLF reports: understanding technical communications from the

universities, limitations in network connectivity and data, student readiness for online learning, student engagement, and the wellbeing of both students and staff.

Thabethe and Reddy (2021) report on a small qualitative study concerning students enrolled on a course in community-based learning at the University of KwaZulu-Natal. Using a Community of Inquiry framework based on three 'presences' (social, teaching, and cognitive) the researchers found that greater investment in community engagement is an area that universities might profit from in post-pandemic times.

A survey at the University of Namibia aimed to identify barriers to quality pedagogies. Kadhila and Nyambe (2021) surveyed 11,920 students, approximately 40% of the total student body, and found three sets of barriers: technological, pedagogical, and individual. Echoing the findings above, the authors listed limited network coverage and difficulties experienced by students using only a mobile phone for learning; lack of quality online pedagogies on the part of staff to ensure that learning occurred; and numerous personal challenges for students.

Finally, a small-scale survey conducted at the Centre for Innovation in Learning and Teaching (CILT) at the University of Cape Town shows how a well-developed centre for teaching and learning coped with the pandemic experience. Trotter, Huang and Czerniewicz (2021) report that the centre's staff raised a number of issues, ranging from an increase in inequity (despite the efforts of CILT), concerns about pedagogical quality as academics struggled to move online, and a tension between agility in managing the institution versus more traditional collegiality and staff wellbeing issues. All four of these concerns are relevant to the RELATE agenda, and will need to be addressed in a reimagined higher education system.

Postgraduate students were included in the research questions for the review, but it was found that they hardly figured in the literature. The SAULM survey showed higher levels of access to learning materials and access to devices among postgraduate students, while their challenges with data were similar to those of undergraduate students. Most of the changes to teaching and learning practices as suggested in this literature review would benefit postgraduate students. Essel et al. (2021) found that postgraduate students experienced higher levels of technology-induced stress than undergraduates. Both Essel and colleagues and Eri et al. (2021)

recommend that more research is needed on postgraduate experiences during and after the pandemic.

iii) Pedagogy and learning and teaching practices

This theme focuses on how academic staff have developed and revised their pedagogies and teaching practices during the two years of the pandemic. We identified three sub-themes in the literature sourced:

- the relationship between emergency remote teaching and properly planned online and blended learning;
- that teaching and learning with digital technologies needs to be pedagogy-led, including authenticity, active student engagement, and agency; and
- the need for flexibility and combinations of online, blended and face-to-face approaches, including appropriacy to context, and the importance of self-directed learning.

Emergency Remote Teaching versus Online Learning

The first area that needs clarification when looking at pedagogy and learning and teaching practices is to distinguish between emergency remote teaching¹ (ERT) and online learning (OL). Very early in the pandemic, Hodges and colleagues wrote an important article distinguishing between the two (Hodges et al., 2020). This was reiterated by the National Council for Online Education recently (NCOE 2022) because they are concerned that practitioners and researchers are conflating remote learning with online learning. Although these pieces are from the United States, they have relevance globally. They suggest that ERT should be used as the term for the rapid movement of existing curricula from a face-to-face or blended mode to an online mode due to a national or global emergency. In contrast, “effective online learning results from careful instructional design and planning, using a systematic model for design and development” (Hodges et al., 2020). They note that the typical development time for a fully online course is at least six months before the course is delivered.

¹ A number of authors refer to emergency remote teaching *and learning*. However, Hodges et al. (2020) prefer the term ERT, as the focus of the process is instruction, with limited evidence that learning is taking place.

The implication of the distinction between ERT and OL for the purposes of this review is that universities need to ensure that they do not remain in an ERT mindset, with minimal development of those ERT practices, but instead they need to return to or develop properly planned courses. Most are likely to retain an online presence or move substantially in that direction, and therefore they need to develop policies and strategies to that effect. This is not to suggest that further ERT planning should not be done. Michelle Dennis suggests that ERT best practice should focus on design, preparation of the academic staff, and student support (Dennis 2021). A good resource for planning more extensive online work in an institution is the book *'Learning Online: What Research Tells Us About Whether, When and How'* (Means, Bakia & Murphy, 2014).

Hodges and colleagues make two further important points of relevance here: first, that centres for teaching and learning need to support their institutions very differently during a time of crisis, and need to have contingency plans for future possible emergencies. Second, any evaluation of ERT that institutions have conducted needs to be clear that they cannot simply compare face-to-face courses with their online counterparts. Instead, ERT evaluation needs to focus on the setting, inputs and processes, not only on the learning that arose from the course (Hodges et al., 2020). Finally, academics need to work closely with colleagues in their teaching and learning centres to achieve quality online learning for their students.

Pedagogical practices

Changes in learning and teaching practices and pedagogy are key for the reimagined higher education system. A number of articles addressed how pedagogical practices need to change post-pandemic. All of them are underpinned by the acknowledgement of digital inequities that are prevalent across the world, entrenched by ERT, and extreme in South Africa. They are eloquently expressed as “Now that digital inequality and inequity have been seen, they cannot be unseen” (Czerniewicz, 2021), and finding a solution to them needs to be part of the reimagined HE system. Amin, Dhunpath and Devroop (2021), in the introductory chapter to their edited book *'(Re)learning to teach in contexts of crises'*, note that most university lecturers teach in the manner they were taught, and will need to

change their practices going forward. Although they consider that there is “no standard recipe for what or how to (re)learn” (p. 16), they suggest that student input will be needed in planning how teaching needs to change, as students have a variety of competences and skills that we should draw upon, including digital ones.

A very important notion regarding pedagogy is raised by Jansen (2021) and Schwartzman (2021). They point out that face-to-face teaching has a number of features that cannot currently be replaced by screen teaching: “imagine a gallery of muted students on your screen and try and inspire those dark blocks from a little room in your attic” (Jansen, p. 140). Teaching in a classroom or lecture hall by a committed educator has the following qualities, according to Jansen: it is an intellectual activity – a rich exchange of ideas between the professor and the students; an emotional activity in which the lecturer and students react to each other. Jansen also identifies political activity, remedial activity and spiritual activity, and stresses that institutions will need to find ways to replicate the affordances of high-quality teaching in the digital environment. Schwartzman notes that how the camera is used in a Zoom call reflects systems of power and privilege, and suggests ways in which ‘immediacy’ - normally present in a face-to-face classroom - can be replicated online (p. 22).

A powerful proposal for a pedagogy-led way of working is put forward by Fataar and Norodien-Fataar (2021), based in South Africa. The authors stress that teaching with technology should not be conflated with the affordances of technology. Like Amin, Dhunpath and Devroop (2021), they believe that traditional pedagogy as practised in most institutions of higher education corresponds to knowledge transfer. The changes brought about by the pandemic enable us to question this notion, and the article proposes that an e-learning ecologies approach (Cope and Kalantzis, 2017) should be adopted. This is a post-digital perspective (Jandrić et al., 2018), and involves two threads: a reflexive pedagogy that involves students as knowledge makers (giving them agency); and design-based learning. In the latter, students are carefully scaffolded through bodies of knowledge, and the approach bears resemblance to the blended pedagogical model proposed by Johnston and colleagues in the United States (Johnston et al., 2021), as well as the work of Fernandes and Gattolin (2021) in Brazil.

The promise of these papers is that they propose new ways of approaching teaching and learning with technology. A concern is that their ideas may be too radical for the South African higher education system, which has experienced extensive changes since 1994 (Badat, 2010) and whose academics have undergone several years of stressful conditions, including student protests prior to the pandemic. Nevertheless, academics who wish to work in agile ways should investigate the concept of reflexive pedagogy.

The findings above suggest that far-reaching changes to pedagogy in higher education are needed. At least 32 of the papers reviewed refer to the need for active learning in the form of active student engagement and participation. Such pedagogy has been discussed since at least the 1960s, is part of currently accepted theories that explain how people learn, and has been thoroughly researched. A number of papers included the concepts of 'joy' and 'fun', which help to promote active student participation. Okada and Sheehy's research showed that nearly 90% of participants in the UK valued fun in online learning, and that this was linked to wellbeing, motivation, and performance (Okada & Sheehy, 2020). Pichardo et al. (2021) evaluated an online tool and found that it improved responsiveness, engagement, collaborative learning, and communication among students. In South Africa a study by Omidire, Aluko and Mampane (2021) recommends revising curricula to include the positive emotional aspects of teaching and learning. Active learning is clearly a priority, but despite some pockets of excellence it has not been the norm for most lecturer-student engagements in higher education in South Africa. Trotter, Huang and Czerniewicz (2021) noted that during the pandemic, some lecturers expected students to watch videos up to two hours long, indicating the lecturers' limited understanding of what can be achieved in online learning. In order for lecturer teaching methods to change, South Africa will need to invest heavily in Continuing Professional Development (CPD) over the next decade. This topic is discussed further in the institutional response section below.

Digital teaching and learning

A number of articles addressed issues of digital teaching and learning that academic staff will need to address post-pandemic. As with the discussion of ERT and OL, all

the papers preface their arguments with concerns of digital inequity across institutions. Jansen (2021) puts it bluntly: “the feverish excitement about the digital transformation of universities will mean little to the [historically disadvantaged institutions] unless the problems of digital inequality are resolved” (p. 141). A common thread across articles is the need for flexibility in several domains. Azionya and Nhedzi (2021) carried out an analysis of tweets during ERT in 2020, and concluded that a lack of flexibility contributed to difficulties experienced by the hundreds of students who contributed to the social media ‘conversation’. They recommend that post-pandemic, academics will need to provide the following for their students:

- asynchronous access to presentations with a variety of visuals, scripts, case studies, etc., shared in multiple formats compressed into small files and shared on several platforms;
- content broken into small chunks for ease of access; and
- questions and clarifications provided via email, messenger apps and synchronous sessions with video conferencing.

Other papers make similar suggestions. Rapanta et al. (2020, 2021) state that there is no unique recipe, but that lecturers need to focus in three areas: learning design, teacher presence, and assessment. When designing learning activities, they should use “a mix of design approaches (synchronous, asynchronous, online, offline)” (p. 937). Lecturers should attend to the three ‘presences’: cognitive, social and facilitatory when teaching their students, and develop thoughtfully designed assessments (see below). Davies (2022) cautions that interaction across an interface (i.e. online teaching) may suit disciplines which foreground information-processing or problem-solving, but might be an oversimplification for other subjects in which interpretation and critical thinking play a major part.

Mahlaba (2020) makes an important point about self-directed learning (SDL) post-pandemic. Conceptualised by Knowles in 1975, SDL refers to individuals taking the initiative for their learning needs, goals, resources and learning strategies. Given the toll that the pandemic has taken on academic staff, the idea that students need to take more responsibility for their own learning is significant. It aligns with the concept

of constructivist learning and 21st-century skills, and Knowles refers to it as a 'prerequisite' for the fast-changing world. Although it might be difficult to implement in South African universities, the concept is one that should be taken seriously in a reimagined higher education system.

iv) Institutional responses

This theme focuses on institutional responses to the pandemic, and how teaching and learning practices will need to change structurally.

Three sub-themes were identified:

- Systemic transformation of institutions and the need not to return to a 'new normal', but instead a reimagined higher education system. The ability to take advantage of flexible modes of delivery and organisational agility will be key for institutions, as previous business models will need to be re-thought. This will include investment in professional development for academics to improve their teaching both face-to-face and online.
- The need for institutions to develop ways of disrupting structural inequalities and lack of resources. The digital divide between historically advantaged and disadvantaged universities has been exacerbated - how this might be overcome needs to be explored, especially with respect to physical and epistemological access.
- The need to integrate a humanising pedagogy into the curriculum which addresses students' and academics' wellbeing. There is urgent need to de-emphasise the learning of content in favour of critical thinking, collaboration, and communication, and including students in planning how teaching and learning takes place in a transformed landscape.

All will need implementable institutional policies to guide them.

First, it should be recognised that various institutions in South Africa have experience in carrying out remote teaching at relatively short notice even prior to 2020. Jansen (2021) noted that, during university shutdowns in 2015-17 associated with the #FeesMustFall movement, the capacity to move to online teaching was split between historically advantaged and disadvantaged institutions. Czerniewicz (2020)

noted similar digital divides and inequities, and provided advice for how the universities might cope with the pandemic. The University of Pretoria moved to online mode in 2015/16, and the lessons learned resonate closely with what has been experienced in 2020-2022. These lessons include the need for lecturers to select and prepare content carefully and not overload students, to provide effective communication and care for both staff and students, and to assist students to take responsibility for their own learning (Potgieter et al., 2019).

Systemic institutional transformation for a post-pandemic world is at the heart of this literature review. The idea of dismantling and rebuilding the higher education system is radical, but is supported in several papers (e.g. Borden et al., 2021; Jansen, 2021; Makoe & Alcott, 2021; Selingo, 2022). They note that university governance, although more democratic than many other organisations, is antiquated. Business models rely on in-person learning in a physical location, which is unlikely to be sustainable in the future. Credentials should be re-designed for short-term skill-based training, while resource allocation should be zero-based to allow greater flexibility. Du Plessis et al. (2022) stress the need to extend the teamwork evident within institutions during the pandemic to collaboration *across* HEIs.

In 2021, Mihai provided a [crowdsourced list of inter-institutional partnerships](#); although there is only one from South Africa – the [Cape Higher Education Consortium](#), which focuses on professional development for HE middle management – this is an area for development going forward. Universities South Africa (USAf) could manage such collaborations to assist in capacity development. A country-wide collaboration is the [Siyaphumelela Network 2.0](#), which aims to catalyse student success across the South African HE system. Eri et al. (2021) recommend several transformations to help develop digital resilience: the redesigning of course delivery strategies, extensive professional development for staff in both digital competency and empathetic engagement with students, and revised assessment strategies.

As noted, structural inequalities and inequities are fundamental to transforming the higher education system, and attract by far the most discussion in the South African literature on the pandemic and the future. Most of the papers discussed in the following paragraphs refer to the need to disrupt structural inequalities, provide free

access to resources, and bridge the HE digital divides in South Africa, and also across Sub-Saharan Africa (SSA).

As a preface to combating inequality, an interesting look at the future of universities in the USA is [The Low-Density University](#) (Kim & Maloney, 2020). This open-licensed book sets up several scenarios for higher education institutions in the US, and sets out various university transformation options, some of which might be implementable in South Africa. Any such ideas for a reimagined HE system would need USAf and the CHE to initiate discussions to determine which options are feasible and implementable. Makoe and Alcott (2021) and Mpungose (2020) note the need for digital infrastructure and the costs involved in access; while Perumal et al. (2021), Azionya and Nhedzi (2021), and Landa, Zhou and Marongwe (2021) are particularly concerned with a lack of resources in historically disadvantaged institutions (HDIs) and the need for real transformation in resource allocation. Czerniewicz et al. (2020) emphasise that “nothing remains business as usual” (p. 963) and stress that it is crucial to seize the current moment for equity-focused change that does not involve commercial providers who have occupied teaching and learning spaces in many institutions (Hillman, Martins & Ogu, 2021). An analysis of the commercialisation and privatisation of education in the context of COVID-19 globally has been developed by Williamson and Hogan (2020). They conclude that there have been considerable advantages in technology providers assisting with a continuity of learning during the pandemic, at least in the Global North, but that they need to be held to account. Those planning the future of HE in South Africa must be aware of the potential dangers of for-profit organisations colonising the education space.

Others consider that social, critical deliberations about curricula and students’ epistemological access have been heightened during the shift to ERT. The book ‘*Understanding Higher Education*’ (Boughey and McKenna, 2021), written just prior to the pandemic, is another important resource when considering how university teaching and learning needs to be reconceived post-COVID.

Jansen (2021) envisages two scenarios for how the digital divide might unfold: one in which the government and private sector invest strongly in technological

infrastructure, and the other in which the historically disadvantaged institutions (HDIs) fall further behind. He sees the latter as the most likely scenario, given the instability in higher education institutions over the past few years. An important measure to address these issues has been for universities and DHET to enable zero-rating (no data costs) for institutional websites. Such zero-rating has been happening across the educational field since March 2020, and the current number of websites is nearly 1,200 (tinyurl.com/zero-rated). They include government websites, universities, TVET colleges, schools, and other educational entities. The [Vox telecom website](#) provides information about zero-rating, including the application process and FAQs. However, zero-rating has limitations: not all the platforms students use for learning are zero-rated. For example, embedded content on a website (such as YouTube videos, or external images) is not covered. The SAULM findings (DHET, 2020) suggest that the data provided to students by some (mostly privileged) institutions and the zero-rating were ultimately insufficient for students' needs. The innovation therefore has to be extended and further developed, and it is crucial that zero-rating is not just a temporary measure during the remainder of the pandemic, but becomes a permanent feature for education in the future, including where network coverage is limited. The South African government should also insist that the large technology companies work to help reduce data costs as well as provide information to other Sub-Saharan countries to pressure their own governments and mobile network operators to put similar measures in place.

Another long-term institutional response prevalent in the literature is how curricula might integrate a more humanising pedagogy to address the wellbeing of both students and staff. Several papers (Arriaza Westendorff et al., 2021; Rapanta, 2020, 2021; Thabethe and Reddy, 2021) refer to how to establish an online relationship with learners online as part of teacher presence, a construct from the Community of Inquiry framework, briefly mentioned above. The three sub-presences are the cognitive presence, that considers how teachers facilitate the construction of knowledge; the social presence, that uses tools to build an online community; and the facilitatory presence, that the teacher uses to direct and facilitate processes to achieve the desired learning outcomes. Actively thinking about each presence when designing online experiences for students can assist in the teaching and learning

experience being more humane. Deliberate care, especially when using asynchronous modes of teaching, can assist in minimising students' experiences of physical separation, stress and anxiety. Arriaza Westendorff et al. (2021) write in the context of Guatemala, which has similarities to South Africa in terms of inequity, poverty, and crime. Their short literature review of care in higher education includes the elements of trust, acceptance, attentiveness, empathy, and support, all of which would make HEIs more attuned to inequities that need to be mitigated post-pandemic. Within such a pedagogy, the inclusion of student voices in planning and implementation is recommended by several papers (e.g. Amin, Dhunpath and Devroop, 2021; Hillman, Martins and Ogu, 2021). In the global North, students often have more experience with the technology than their teachers, and could be engaged to input on course development. In the Global South there will also be some technologically strong students for academics to learn from, but course developers also need to understand student challenges with devices, connectivity, and data to provide the most appropriate online and offline experiences.

Institutional responses are predicated on human resources. Even prior to the pandemic, there were numerous calls for improved and expanded professional development for academic staff to improve teaching and learning (for example, Haras, 2018), and now these calls are getting louder (for example, Mihai, 2021). Research has shown that there are a number of barriers to academic staff getting involved in CPD (Inamorato dos Santos et al., 2019), such as lack of incentives for participation, lack of recognition for quality teaching and learning, and lack of time to complete formal courses. It is therefore crucial that the HE sector develops a plan for innovative professional development of academics, including empowering academic managers and leaders to initiate such CPD with their staff.

v) Rigour and integrity

This theme focuses on rigour and quality assurance in assessment and pedagogy. Two sub-themes were identified:

- the need for rigour in assessment, while at the same time considering the increase of inequalities; and

- how quality assurance is key in developing sustainable modes of online, offline, and blended learning.

The SEP-TLF report summed up the concerns of many South African academics: “One of the most alarming findings in this study concerns the integrity of academic assessments as a result of cheating and illicit collaborations that have overwhelmed student disciplinary structures at institutions. It is vital to create opportunities and platforms to share solutions for these challenges to ensure the quality of teaching and learning” (p. 44). Schwarzmann (2021) discusses the balance between lecturers demanding rigorous academic standards and those who extend grace due to the pandemic, and the arguments on both sides. Although this review reports a range of suggestions around how the HE system in South Africa can change its teaching and learning strategies, the area of assessment is less clear. Ultimately, the teaching staff need to be ‘ahead’ of potential student dishonesty, for example through using scrambled item banks for low-level and formative assessments, carefully mediated anti-plagiarism software, and developing creative assessments. A number of papers discussed the challenges and possible partial solutions to assessment in the online environment which institutions can learn from for the future. However, the online assessments and assignments proved to be directly related to the inequities between students who had satisfactory devices, access and data, and those who did not.

Assessment practices that disadvantage students are reported by Azionya and Nhedzi (2021), Czerniewicz et al. (2020), and Rapanta et al. (2020), while Hillman, Martins and Ogu (2021) note that burnout is a real issue for staff trying to cope with evaluating multiple assessments by students. Solutions suggested are mostly based on continuous assessment, but with self-regulation on the part of students (e.g. through the use of self-reflections or portfolios). An alternative is the lecturer requiring self-paced, asynchronous activities, but framed within an overall, pre-defined schedule. Other recommendations refer to formative assessment based on self- or peer-review either within a learning management system or separately (e.g. Johnston, 2021), and flexible, project-style assignments which include a research component (e.g. Azionya and Nhedzi, 2021). The focus on students as responsible for their own learning ties in with the concept of self-directed learning discussed

above, and is necessary to mitigate teacher burnout. It is again worth referring the reader to the book '*e-Learning Ecologies*' (Cope and Kalantzis, 2017), which contains sections on assessment in online learning. Whatever form the assessment takes, it appears inevitable that there will be a greater workload for the lecturer than in traditional face-to-face teaching. The key is to find equitable, authentic, flexible assessments which are manageable and will not lead to burnout on the part of the lecturer.

With the arrival of the COVID-19 pandemic causing a rapid transfer to ERT, there was little time for quality assurance (QA) for much of 2020. However, some institutions evaluated their ERT and, with the shift to properly planned online teaching, it would be expected that QA should be carried out at most HEIs. It is important to note that institutions do not need to start developing QA guidelines themselves from scratch. There is no shortage of QA processes available to institutions, for example the [Nadeosa Quality Criteria](#) for distance education, and the chapter on [quality assurance](#) in '*Teaching in a Digital Age*' (Bates, 2015). As stated above, Hodges et al. (2020) make the distinction between evaluating ERT (focusing on context and inputs) and properly planned online learning, where learning products can be assessed.

3. Conclusions

The CHE RELATE meta-project aims to reconceptualise teaching and learning in South Africa's higher education system so that it is more robust and responsive to the future needs of the country. The annotated bibliography provided in this report lists many of the most relevant papers, chapters and books which researchers can use in other sub-projects of RELATE. The literature review provides those items that have been considered to be most relevant to the South African context, or that afford data and ideas that can be taken up in the reimagination processes.

Although the pandemic resulted in many negative outcomes for education globally and has shone a spotlight on several deficiencies in South African higher education, such as those related to devices, connectivity and data costs, one can take this opportunity to remedy such inadequacies and develop a more equitable system. Much of the South African literature, as well as a number of international papers and books, was adamant that the government needs to partner with the private sector to institute massive investment to ensure improved connectivity, lower data costs, and appropriate devices for students to learn with. Several papers were sceptical about whether such a task is achievable, but unless the country at least tries to do it, South Africa will fall further behind, and let down the majority of its citizens.

The pandemic has also 'kick-started' the use of technology for teaching and learning, and shown up its affordances and shortfalls. It is now up to institutions, in collaboration with each other, DHET, the CHE and USAf, to develop their technology-enabled systems with pedagogy at the core for teaching and learning processes. Several papers made it clear that content delivery needs to be as flexible as possible to facilitate student access, and must ensure that systems include a "caring" element for both students and staff. At the same time, institutions need to be agile, undertaking innovative CPD for their staff, supporting their academic leaders in this sphere, and ensuring that students in turn are supported to be digitally capable and resilient. In the most responsive universities, there has been an understanding that certain tasks (e.g. certain first-year lectures) can be carried out entirely online, with positive evaluation of the results, and improvement over time. Once students at

historically disadvantaged institutions which experienced serious digital access challenges during the pandemic are allowed back on campus, they too can access all such work digitally, as long as the institutional network is of sufficient quality.

Within the domain of teaching and learning in the ERT and OL spaces, there is a need for institutions to implement quality assurance processes for their programmes and ensure that assessments are valid, reliable, and rigorously executed, with due consideration for the inequities in the system. Although not discussed in this report, there is clearly an important role for learning analytics to play in improving quality teaching and learning.

Despite the difficulties encountered during the pandemic, it is important not to adopt a negative view of the future of higher education in South Africa and, indeed, the broader continent. It would be much more constructive to bring together the DHET, USAf, the CHE, the private sector, and universities to establish a shared vision for the sector. The RELATE meta-project aims to do this, and it is hoped that the ideas contained in this report assist in moving toward this goal.

REFERENCES

- Abu Talib, M., Bettayeb, A. M., & Omer, R. I. (2021). Analytical study on the impact of technology in higher education during the age of COVID-19: Systematic literature review. *Education and information technologies*, 26(6), 6719-6746.
- Amin, N., Dhunpath, R., & Devroop, C. (2021) Uncertainties and Ambiguities of (Re) learning to Teach in the Context of Crises. In N. Amin and R. Dhunpath (Eds.), *(Re)Learning to Teach in Contexts of Crises* (pp. 1-25). Alternation African Scholarship Book Series (AASBS), 1.
- Arriaza Westendorff, R. E., Mutch, C., & Mutch, N. T. T. (2021). When COVID-19 is only part of the picture: caring pedagogy in higher education in Guatemala. *Pastoral Care in Education*, 39(3), 236-249.
<https://doi.org/10.1080/02643944.2021.1938648>
- Azionya, C. M., & Nhedzi, A. (2021). The Digital Divide and Higher Education Challenge with Emergency Online Learning: Analysis of Tweets in the wake of the COVID-19 Lockdown. *Turkish Online Journal of Distance Education*, 22(4), 164-182.
- Badat, S. (2010). *The Challenges of Transformation in Higher Education and Training Institutions in South Africa*. Development Bank of Southern Africa.
- Bates, A.W. (2015). Teaching in a Digital Age: Guidelines for designing teaching and learning. Vancouver, B.C.: Tony Bates Associates Ltd. Retrieved from <https://wiki.lib.sun.ac.za/images/f/f3/Teaching-in-a-digital-age.pdf>
- Bates, T. (2022). Has online learning gone backwards because of the pandemic? Online Learning and Distance Education Resources, 5 February. Retrieved from <https://www.tonybates.ca/2022/02/05/has-online-learning-gone-backwards-because-of-the-pandemic/>
- Borden, V. M., Davis, J. L., & Borden, S. H. (2021). How Will or Should the COVID-19 Pandemic Change Higher Education? In N. Amin & R. Dhunpath

(Eds.), *(Re)Learning to Teach in Contexts of Crises* (pp. 47-77). Alternation African Scholarship Book Series (AASBS).

Boughey, C., & McKenna, S. (2021). *Understanding Higher Education: Alternative Perspectives*. African Minds.

Butler-Henderson, K., Tan, S., Lalani, K., Karakka Mandapam, S., Kemp, T., Rudolph, J., & Crawford, J. (2021). *COVID-19 in Higher Education Literature Database (CHELD). Version 2*. Institute of Research Innovation. DOI: <https://doi.org/10.37074/jalt.2021.4.1.22d>

Butler-Henderson, K., Tan, S., Lalani, K., Mandapam, S. K., Kemp, T., Rudolph, J., & Crawford, J. (2021). Update of the COVID-19 Higher Education Literature Database (CHELD v2). *Journal of Applied Learning & Teaching*, 4(1), 1-4.

CHE, USAF & UFS (2021). *Staff Experience of and Perspectives on Teaching and Learning and its Future (SEP-TLF) survey*. Report retrieved from https://www.che.ac.za/sites/default/files/inline-files/SEP-TLF_Report.pdf

Cope, B., & Kalantzis, M. (2017). *E-learning Ecologies: Principles for new learning and assessment*. New York: Routledge. DOI: <https://doi.org/10.4324/9781315639215>

Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 1-20.

Czerniewicz, L. (2020). What we learnt from “going online” during university shutdowns in South Africa. PhilOnEdTech, 15 March. Retrieved from <https://philonedtech.com/what-we-learnt-from-going-online-during-university-shutdowns-in-south-africa/>

Czerniewicz, L. (2021). Letting the light into higher education. University World News, 15 August. Retrieved from <https://www.universityworldnews.com/post.php?story=20210813064100898>

Czerniewicz, L., Agherdien, N., Badenhorst, J. et al. (2020). A Wake-Up Call: Equity, Inequality and COVID-19 Emergency Remote Teaching and Learning.

Postdigital Science and Education 2, 946-967. <https://doi.org/10.1007/s42438-020-00187-4>

Davies, W. (2022). How many words does it take to make a mistake? *London Review of Books*, 4(4). Retrieved from <https://www.lrb.co.uk/the-paper/v44/n04/william-davies/how-many-words-does-it-take-to-make-a-mistake>.

Dennis, M. (2021). Best Practices for Emergency Remote Teaching. In A. Bozkurt (Ed.), *Handbook of Research on Emerging Pedagogies for the Future of Education: Trauma-Informed, Care, and Pandemic Pedagogy* (pp. 82-100). IGI Global. <https://doi.org/10.4018/978-1-7998-7275-7.ch005>

Department of Higher Education and Training (2020). *Students' Access to and Use of Learning Materials: Survey Report 2020*. Pretoria: Department of Higher Education and Training.

Du Plessis, M., Jansen van Vuuren, C. D., Simons, A., Frantz, J., Roman, N., & Andipatin, M. (2022). South African Higher Education Institutions at the Beginning of the COVID-19 Pandemic: Sense-Making and Lessons Learnt. *Frontiers in Education* (p. 564). Frontiers.

Eri, R., Gudimetla, P., Star, S., Rowlands, J., Girgla, A., To, L., Li, F., Sochea, N., & Bindal, U. (2021). Digital resilience in higher education in response to the COVID-19 pandemic: Student Perceptions from Asia and Australia. *Journal of University Teaching and Learning Practice*, 18(5), 108-134. <https://doi.org/10.53761/1.18.5.7>

Essel, H. B., Vlachopoulos, D., Tachie-Menson, A., Johnson, E. E., & Ebeheakey, A. K. (2021). Technology-Induced Stress, Sociodemographic Factors, and Association with Academic Achievement and Productivity in Ghanaian Higher Education during the COVID-19 Pandemic. *Information*, 12(12), 497.

Fataar, A., & Norodien-Fataar, N. (2021). Towards an e-learning ecologies approach to pedagogy in a post-COVID world. *Journal of Education*, 84, 1-14. <https://doi.org/10.17159/2520-9868/i84a08>

- Fernandes, A. C., & Gattolin, S. R. B. (2021). Learning to Unlearn, and then Relearn: Thinking about Teacher Education within the COVID-19 Pandemic Crisis. *Revista Brasileira de Linguística Aplicada*, 21(2), 521-546.
<https://doi.org/10.1590/1984-6398202117277>
- Ferrari, R. (2015). Writing narrative style literature reviews. *Medical Writing*, 24(4), 230-235.
- Haras, C. (2018). Faculty Development as an Authentic Professional Practice. *Higher Education Today*, 17 January. Retrieved from
<https://www.higheredtoday.org/2018/01/17/faculty-development-authentic-professional-practice/>
- Hillman, V., Martins, J.P., & Ogu, E.C. (2021). Debates About EdTech in a Time of Pandemics Should Include Youth's Voices. *Postdigital Science and Education* 3, 990-1007.
- Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., & Bond, M. A. (2020). The difference between emergency remote teaching and online learning. Retrieved from <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>
- Inamorato dos Santos, A., Gaušas, S., Mackevičiūtė, R., Jotautytė, A., & Martinaitis, Ž. (2019a). *Innovating Professional Development in Higher Education: An Analysis of Practices*. EUR 29676 EN, Publications Office of the European Union, Luxembourg, ISBN 978-92-76-00580-3, doi:10.2760/26224.
- Jandrić, P., Hayes, D., Levinson, P., Christensen, L. L., Lukoko, H. O., Kihwele, J. E., Brown, J. B., Reitz, C., Mozelius, P., Nejad, H. G., Martinez, A. F., Arantes, J. A., Jackson, L., Gustafsson, U., Abegglen, S., Burns, T., Sinfield, S., Hogan, M., Kishore, P., & Hayes, S. (2021). Teaching in the Age of COVID-19 – 1 Year Later. *Postdigital Science and Education*, 3(3), 1073-1223.
<https://doi.org/10.1007/s42438-021-00243-7>
- Jandrić, P., Knox, J., Besley, T., Ryberg, T., Suoranta, J., & Hayes, S. (2018). Postdigital Science and Education. *Educational Philosophy and Theory*, 50(10), 893-899. <https://doi.org/10.1080/00131857.2018.1454000>

- Jansen, J. D. (2021). What Does it Mean to Teach in the Shadow of COVID-19? A Critical Reflective Essay on the Future of Online Teaching in South African Universities. In N. Amin & R. Dhunpath (Eds.), *(Re)Learning to Teach in Contexts of Crises* (pp. 132-144). Alternation African Scholarship Book Series (AASBS).
- Johnston, E., Burleigh, C., Rasmusson, X., Turner, P., Valentine, D., & Bailey, L. (2021). *Multimedia Open Educational Resource Materials for Teaching-Online Diversity and Leadership: Aligning Bloom's Taxonomy and Studio Habits of Mind*. Higher Learning Research Communications, 11(2).
- Kadhila, N., & Nyambe, J. (2021). Barriers to the quality of emergency online pedagogies in higher education during the COVID-19 pandemic: A case study from the University of Namibia. *Journal of Learning for Development*, 8(3), 516-531.
- Khan, M. A. (2021). COVID-19's impact on higher education: a rapid review of early reactive literature. *Education Sciences*, 11(8), 421.
- Kim, J., & Maloney, E.J. (2020). *The Low-Density University: 15 Scenarios for Higher Education*. Baltimore: Johns Hopkins University Press, doi:10.1353/book.77218.
- Landa, N., Zhou, S., & Marongwe, N. (2021). Education in emergencies: Lessons from COVID-19 in South Africa. *International Review of Education*, 67, 167-183. <https://doi.org/10.1007/s11159-021-09903-z>
- Mahlaba, S. (2020). Reasons why self-directed learning is important in South Africa during the COVID-19 pandemic. *South African Journal of Higher Education*, 34(6), 120-136. <https://doi.org/10.20853/34-6-4192>
- Makoe, M., & Olcott, D. (2021). Leadership for Development: Re-shaping Higher Education Futures and Sustainability in Africa. *Journal of Learning for Development*, 8(3), 487-500. Retrieved from <https://jl4d.org/index.php/ejl4d/article/view/569>
- Means, B., Bakia, M., & Murphy, R. (2014). *Learning online: What research tells us about whether, when and how*. Routledge.

- Mihai, A. (2021). This pandemic must bring faculty development to the fore. *Times Higher Education*, 2 February. Retrieved from <https://www.timeshighereducation.com/opinion/pandemic-must-bring-faculty-development-fore>
- Mpungose, C. B. (2020). 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). <https://doi.org/10.1057/s41599-020-00603-x>
- Mseleku, Z. (2020). A literature review of E-learning and E-teaching in the era of COVID-19 pandemic. *International Journal of Innovative Science and Research Technology*, 57(52), 6.
- National Council for Online Education (2022). *Emergency Remote Instruction Is Not Quality Online Learning*. Retrieved from https://www.insidehighered.com/views/2022/02/03/remote-instruction-and-online-learning-arent-same-thing-opinion?mc_cid=4c9215f3d6&mc_eid=8dbe0024a7
- Okada, A., & Sheehy, K. (2020). Factors and Recommendations to Support Students' Enjoyment of Online Learning with Fun: A Mixed Method Study During COVID-19. *Frontiers in Education*, 5. <https://doi.org/10.3389/educ.2020.584351>
- Omidire, M. F., Aluko, F. R., & Mampane, M. R. (2021). Promoting the joy of teaching and learning in a diverse world. *South African Journal of Higher Education*, 35(5), 216-233.
- Perumal, N., Pillay, R., Zimba, Z. F., Sithole, M., van der Westhuizen, M., Khosa, P., Nomngcoyiya, T., Mokone, M., & September, U. (2021). Autoethnographic view of South African social work educators during the COVID-19 pandemic: Highlighting social (in)justice. *Social Work/Maatskaplike Werk*, 57(4), 393-409. <https://doi.org/10.15270/57-4-964>
- Pokhrel, S., & Chhetri, R. (2021). A literature review on the impact of COVID-19 pandemic on teaching and learning. *Higher Education for the Future*, 8(1), 133-141.

- Pichardo, J. I., López-Medina, E. F., Mancha-Cáceres, O., González-Enríquez, I., Hernández-Melián, A., Blázquez-Rodríguez, M., Jiménez, V., Logares, M., Carabantes-Alarcon, D., Ramos-Toro, M., Isorna, E., Cornejo-Valle, M., & Borrás-Gené, O. (2021). Students and Teachers Using Mentimeter: Technological Innovation to Face the Challenges of the COVID-19 Pandemic and Post-Pandemic in Higher Education. *Education Sciences*, 11(11), 667. <https://doi.org/10.3390/educsci11110667>
- Potgieter, M., Pilcher, L. A., Tekane, R. R., Louw, I., & Fletcher, L. (2019). Lessons learnt from teaching and learning during disruptions. In M. Schultz, S. Schmid, G. Lawrie (Eds), *Research and practice in chemistry education* (pp. 89-107). Singapore: Springer.
- Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2020). Online university teaching during and after the COVID-19 crisis: Refocusing teacher presence and learning activity. *Postdigital Science and Education*, 2(3), 923-945.
- Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2021). Balancing Technology, Pedagogy and the New Normal: Post-pandemic Challenges for Higher Education. *Postdigital Science and Education* 3, 715-742.
- Schwartzman, R. (2021). Unpacking Privilege in Pandemic Pedagogy: Social Media Debates on Power Dynamics of Online Education. *Journal of Communication Pedagogy*, 5, 17-24. <https://doi.org/10.31446/JCP.2021.2.04>
- Selingo, J. (2022). The Longer the Pandemic Lasts, the Greater Need for Change in Higher Ed. *Forbes*, 25 January. Retrieved from <https://www.forbes.com/sites/jeffreyselingo/2022/01/25/the-longer-the-pandemic-lasts-the-greater-need-for-change-in-higher-ed/>
- Thabethe, N., & Reddy, S. (2021). Community-based learning in higher education: A portal for knowledge production in the time of COVID-19. *Journal of Education*, 84, 1-18. <https://doi.org/10.17159/2520-9868/i84a10>
- Trotter, H., Huang, C., & Czerniewicz, L. (2021). Seeking Equity, Agility, and Sustainability in the Provision of Emergency Remote Teaching During the

COVID-19 Pandemic: A Center for Teaching and Learning Takes an Expanded Role. *Higher Learning Research Communications*, 12.

Williamson, B., & Hogan, A. (2020). *Commercialisation and privatisation in/of education in the context of COVID-19*. Education International.

ANNEXURE A: Annotated Bibliography

PAPERS

Index	APA reference	Annotation	Type of item
110	Abu Talib, M., Bettayeb, A. M., & Omer, R. I. (2021). Analytical study on the impact of technology in higher education during the age of COVID-19: Systematic literature review. <i>Education and Information Technologies, 26</i> (6), 6719-6746.	Useful analysis of 67 papers from 2020 with recommendations. Systematic review.	Journal article
43	Adi Badiozaman, I. F., & Segar, A. R. (2021). Exploring online teaching competence in the context of the COVID 19 pandemic: insights from Sarawak, Malaysia. <i>Journal of Further and Higher Education, 1</i> -14. https://doi.org/10.1080/0309877x.2021.2002284	Employs the validated Faculty Readiness to Teach Online (FRTO), instrument which assesses four online teaching competencies: Course Design, Course Communication, Time Management, and Technical Competence, to gather data. Course design is found to be the highest-rated competency to measure online teaching competency. The findings may have implications for policy and pedagogy.	Journal article
96	Agherdien, N. (n.d.). COVID-19: towards action during uncertainty. Heltasa. Retrieved March 11, 2022, from https://heltasa.org.za/covid-19-towards-action-during-uncertainty/	Wits Team Leader for Curriculum and Teaching talks about participatory parity, drawing on Nancy Fraser's concepts of redistribution, recognition and representation, underscored by an ethics of care as a way to embrace uncertainty in the teaching and learning arena.	Blog
35	Ahmad, L., Sosa, M., & Musfy, K. (2020). Interior Design Teaching Methodology During the Global COVID-19 Pandemic. <i>Interiority, 3</i> (2), 163-184. https://doi.org/10.7454/in.v3i2.100	Shows how to exploit the online medium and virtual reality for the discipline of Interior Design to incorporate a much larger audience/perspective (e.g. virtual exhibitions), as opposed to the traditional local audience. It is, though, a sophisticated technology, and its relevance to our contexts is questionable.	Journal article
85	Ahshan, R. (2021). A Framework of Implementing Strategies for Active Student Engagement in Remote/Online Teaching and Learning during the COVID-19 Pandemic. <i>Education Sciences, 11</i> (9), 483.	Describes various technological open-source applications to enhance student engagement. A valuable contribution to the exploration of innovative interactive technology uses, especially for the Science, Technology, Engineering, and Mathematics (STEM) subjects, where synchronous engagement may be crucial for the subject matter.	Journal article

Index	APA reference	Annotation	Type of item
	https://doi.org/10.3390/educsci11090483		
44	Amin, N., & Dhunpath, R (2021). <i>Uncertainties and Ambiguities of (Re) learning to Teach in the Context of Crises</i> . Alternation African Scholarship Book Series (AASBS), 1.	Questions the effectiveness of ERT when academics are not experienced in teaching in such conditions. Draws on theorists to examine possibilities and impossibilities of (re)learning to teach under abnormal conditions.	Book chapter
39	Arriaza Westendorff, R. E., Mutch, C., & Mutch, N. T. T. (2021). When COVID-19 is only part of the picture: caring pedagogy in higher education in Guatemala. <i>Pastoral Care in Education</i> , 39(3), 236-249. https://doi.org/10.1080/02643944.2021.1938648	Personal story of a higher-education teacher which focuses on a pedagogy of love and care as a humane approach to counter the enormity of challenges facing students living in the pandemic in a low-income country.	Journal article
29	Azionya, C. M., & Nhedzi, A. (2021). The digital divide and higher education challenge with emergency online learning: Analysis of tweets in the wake of the COVID-19 lockdown. <i>Turkish Online Journal of Distance Education</i> , 164-182.	This study concludes that online learning did not reduce the epistemic accessibility challenges, especially for student in HDIs, and makes some useful recommendations for remote learning to accommodate/ mitigate accessibility and digital divide challenges.	Journal article
36	Bashir, A., Uddin, M. E., Basu, B. L., Khan, R., Hardiyanti, D., Nugraheni, Y., ... & Jemadi, F. (2021). Transitioning to online education in English Departments in Bangladesh: Learner perspectives. <i>Indonesian Journal of Applied Linguistics</i> , 11(1), 11-20.	Study of 26 interviews from students in 11 public universities in Bangladesh. Reports on the challenges of pivoting online, such as access and equity, inadequate logistical support, and poor infrastructure (similar context to South Africa). Concerns related to curriculum, pedagogy, assessment and psychological issues, lack of prior experience, and inadequate training were highlighted, with major suggestions from the participants including ensuring access and equity, providing training opportunities and digital devices to students, and engaging in curriculum and assessment reforms.	Journal article

Index	APA reference	Annotation	Type of item
67	Bates, T. (2022, February 5). Has online learning gone backwards because of the pandemic? Retrieved from https://www.tonybates.ca/2022/02/05/has-online-learning-gone-backwards-because-of-the-pandemic/	Useful idea, voiced by Diana Laurillard and endorsed by Tony Bates, that online learning consists mainly of lectures or teachers talking to students, sometimes for six hours or more consecutively. Video lectures are a pedagogical step backwards for online learning. Some useful suggestions on what needs to be done.	Blog
31	Bengueddach, A., & Fortas, A. (2021). ASSES v1: an Algerian Scalable and Simple-To-Use Exam-generation System. 2021 International e-Engineering Education Services Conference (e-Engineering), pp. 36-42. doi:10.1109/e-Engineering47629.2021.9470701	Discusses issues related to examination and assessments at an Algerian university and suggests guidelines and best practices for writing suitable exams that take students' preferences into consideration, while proposing a web-based exam-generation system that generates printable papers and online exams from a question bank.	Journal article
45	Borden, V. M., Davis, J. L., & Borden, S. H. <i>How Will or Should the COVID-19 Pandemic Change Higher Education?</i> Alternation African Scholarship Book Series (AASBS), 47.	Useful description of how the pandemic has disrupted HEIs in the USA, exemplified by three case studies. Uses the cases to make six conclusions/recommendations.	Book chapter
81	Burkholder, G. J., & Krauskopf, E. (2021). Institutional Responses to COVID-19. <i>Higher Learning Research Communications</i> , 11(2). doi:10.18870/hlrc.v11i1.1302	Editorial article that provides a helpful synopsis of all the relevant articles in the current issue. It also refers to a future special issue, <i>e-Education Technologies and COVID-19: Experiences and Lessons Learned</i> , which will no doubt be helpful to the RELATE project. Highlights some areas of interest which may further be helpful to the RELATE project in terms of themes to focus on.	Journal article
49	Buthelezi, L I, & van Wyk, J. M. (2020). The use of an online learning management system by postgraduate nursing students at a selected higher educational institution in KwaZulu-Natal, South Africa. <i>African Journal of Health Professions Education</i> , 12(4), 211-214. https://dx.doi.org/10.7196/AJHPE.2020.v12i4.1391	Health professional use of LMSs for their continuing professional development. There appears to be a link in proficiency in English with digital literacy/technology use.	Journal article
54	Butler-Henderson, K., Tan, S., Lalani, K., Karakka Mandapam, S., Kemp, T., Rudolph, J., & Crawford, J. (2021). COVID-19 in	CHELD Version 2 contains all identified journal articles published between 1 January and 31 December 2020 using a systematic literature review method. See item 12.	Database and article

Index	APA reference	Annotation	Type of item
	Higher Education Literature Database (CHELD), Version 2. Institute of Research Innovation. https://doi.org/10.37074/jalt.2021.4.1.22d		
12	Butler-Henderson, K., Tan, S., Lalani, K., Mandapam, S. K., Kemp, T., Rudolph, J., & Crawford, J. (2021). Update of the COVID-19 Higher Education Literature Database (CHELD v2). <i>Journal of Applied Learning & Teaching</i> , 4(1), 1-4.	Useful to assist in this project re methodology, as the COVID-19 Higher Education Literature Database (CHELD) – the focus of this study – is an important resource to enhance the understanding of how teaching and learning was conducted during COVID-19. Data from 2020. See also item 54.	Journal article
107	Council on Higher Education, Universities South Africa & the University of the Free State. (2021). Staff Experience of and Perspectives on Teaching and Learning and its Future (SEP-TLF) survey. Retrieved from https://www.che.ac.za/sites/default/files/inline-files/SEP-TLF_Report.pdf	Very important survey of staff and academic leaders' experiences during the pandemic, and their view of the future of teaching and learning.	Report
11	Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., ... & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. <i>Journal of Applied Learning & Teaching</i> , 3(1), 1-20.	South Africa is one of 20 countries reviewed. Provides a good overview of the range of responses from institutions across diverse settings. The following conclusions are particularly noteworthy: Never has there been a better time for a coordinated, collaborative, and collective global response to the best-practice principles for online instruction. And in a time of global crisis there is an opportunity for shared resources and expertise across the world to ensure the education of our students can continue in the face of COVID-19. We caveat this paper with recognition of the lack of information to date on the pedagogical approaches and principles being adopted with the rapid movement to digital education. This has the potential to be an enabler of more flexible and innovative digital methods of education, but it could also lead to fewer quality assurance activities while the focus is on revenue mitigation. Universities undergoing a rapid change period need to be conscious of their ability to continuously monitor the quality of the learning design.	Journal article

Index	APA reference	Annotation	Type of item
40	Czerniewicz, L. (2020, March 15). What we learnt from “going online” during university shutdowns in South Africa. PhilOnEdTech. Retrieved from https://philonedtech.com/what-we-learnt-from-going-online-during-university-shutdowns-in-south-africa/	A short opinion piece by Laura Czerniewicz on what was learnt from previous university shutdowns in South Africa. Written immediately before the pandemic started.	Blog
79	Czerniewicz, L. (2021, August 15). Letting the light into higher education. University World News. Retrieved from https://www.universityworldnews.com/post.php?story=20210813064100898	Reflection piece: notes the challenges of the rapid shift to online learning in higher education during the pandemic, including the compromised quality of teaching due to insufficient time. Also celebrates the positives that have emerged as a result of the pandemic in teaching and learning, including being sensitised to the impacts of inequality in the classroom/ education spaces, necessitating institutional attention; the nurturing of collaborative efforts between and within institutions in academic staff development efforts; and the ability of the regulatory environment to respond with greater speed for the greater good of students.	Thought/opinion piece
41	Czerniewicz, L., Agherdien, N., Badenhorst, J. et al. (2020). A Wake-Up Call: Equity, Inequality and COVID-19 Emergency Remote Teaching and Learning. <i>Postdigit Sci Educ</i> 2, 946-967. https://doi.org/10.1007/s42438-020-00187-4	A theorised narrative of reflections and analysis by a range of South African academics, with a focus on equity in relation to the “pivot online”.	Journal article
14	Davies, W. (2022, February 24). How many words does it take to make a mistake? London Review of Books. Retrieved from https://www.lrb.co.uk/the-paper/v44/n04/william-davies/how-many-words-does-it-take-to-make-a-mistake	Examines the issues of plagiarism in the pivot to online learning, and describes the various ways students are navigating content/learning, i.e. speeding through video lectures, copying transcripts of lecture recordings, etc. Talks about “information overload, one of whose effects is to morph authorship into a desperate form of curatorial management, organising chunks of text on a screen”. Highlights the fact that easy access to information on the screen compromises the discerning scholarly self. Also comments on the weakening of bargaining power of academics through strike action, given the growing store of recorded videos which may make their ‘live’ presence a non-issue! Also looks at issue of traditional authorship concerns like outdated citation methods (developed for the printing-press days) and copyright/ intellectual property (paranoia	Thought/opinion piece

Index	APA reference	Annotation	Type of item
		<p>about digital piracy and property).</p> <p>Regarding online learning, an interesting Ofsted guideline note is shared about “live lessons” not being the gold standard, with recorded lesson segments followed by interactive chats or tasks. Feedback recommended “chunking”. Also advances assessment techniques, i.e. the opportunity for constant assessment is there, but the primary purpose of interrupting teaching videos with regular tasks is to sustain student engagement. High student enrolment concerns are also discussed.</p>	
65	<p>Dennis, M. (2021). Best Practices for Emergency Remote Teaching. In A. Bozkurt (Ed.), <i>Handbook of Research on Emerging Pedagogies for the Future of Education: Trauma-Informed, Care, and Pandemic Pedagogy</i> (pp. 82-100). IGI Global. https://doi.org/10.4018/978-1-7998-7275-7.ch005</p>	<p>An evaluation of best practices and communication strategies in emergency remote teaching with respect to online course design, faculty training, and student support is explored in this chapter.</p>	Book chapter
106	<p>Department of Higher Education and Training. (2020). <i>Students' Access to and Use of Learning Materials: Survey Report 2020</i>. Pretoria: Department of Higher Education and Training.</p>	<p>Very important survey of student access and needs.</p>	Report
80	<p>Devis-Rozental, C., & Roper, L. (2022, January 29). Hybridity at work: A higher education model for our times. University World News. Retrieved from https://www.universityworldnews.com/post.php?story=2022012709033113</p>	<p>Blog that discusses different staff working models for both academics and professionals.</p>	Thought/opinion piece
98	<p>Du Plessis, M., Jansen van Vuuren, C. D., Simons, A., Frantz, J., Roman, N., & Andipatin, M. (2022). South African Higher Education Institutions at the Beginning of the COVID-19 Pandemic: Sense-Making and Lessons Learnt. <i>Frontiers in Education</i> (p. 564).</p>	<p>Uses the Cynefin framework to reflect on and make sense of events related to South African HEIs at the onset of the COVID-19 pandemic. Covers sense-making in the disordered, chaotic, complex, complicated, and simple domains. Lessons learnt include the importance of the sense-making process among academic staff, the significance of collaboration and team efforts, and the need to adapt leadership and self-leadership approaches to the changed ways of working in higher education</p>	Journal article

Index	APA reference	Annotation	Type of item
		institutions.	
19	Joseph, S., Thompson, R., Soobramoney, S., and J. W. Wing (2022). Emergency Remote Teaching and Learning During COVID-19 Pandemic: Efficacy of a Four-Stage Model. <i>Tuning Journal for Higher Education</i> 9 (2), 245-77. https://doi.org/10.18543/tjhe.2134 .	A short report about Emergency Remote Teaching in the Durban University of Technology College of Law & Management Studies. Lists the advantages and disadvantages of conducting online academic support sessions, as well as student performance. Useful summary of issues involved in ERT.	Internal DUT report
64	Eckhaus, E., & Davidovitch, N. (2021). Economies of Scale Through E-Teaching in the Post-COVID Era – Students’ Improvements Recommendations Using Mixed Methods Design. <i>International Journal of Higher Education</i> , 11(3), 67. https://doi.org/10.5430/ijhe.v11n3p67	Based on the input of 1,828 students from several institutions, this study looked at learning outcomes according to the learning-centred paradigm, relating to the strengths and weaknesses of the Zoom teaching method from the students’ perspective. The findings suggest a renewed thinking about spatial boundaries i.e. traditional forms of engagement with its direct and unmediated characteristics compared to the evolving virtual engagement.	Journal article
37	Eri, R., Gudimetla, P., Star, S., Rowlands, J., Girgla, A., To, L., Li, F., Sochea, N., & Bindal, U. (2021). Digital resilience in higher education in response to COVID-19 pandemic: Student Perceptions from Asia and Australia. <i>Journal of University Teaching and Learning Practice</i> , 18(5), 108-134. https://doi.org/10.53761/1.18.5.7	A multi-country study surveying 687 students from Australia, Cambodia, China, India, and Malaysia. Reveals barriers to digital transformation and makes some significant recommendations regarding teaching and learning. These include: redesign course delivery strategies to suit cohorts with multiple levels of digital competences, and digital and emotional intelligence; institute professional development programmes for staff to instil much-needed digital competencies to drive digital hardware and software effectively; ensure staff undergo specially designed workshops that will help them recognise the importance of emotionally engaging with learners who may face social and academic isolation; develop school-level support structures for students with the leadership of student ambassadors and recent graduates to motivate and emotionally support online learners; revise assessment strategies that will better fulfil the pedagogical aspirations of the learner; and, finally, engage academics to be more empathetic, not just to the professional needs of their student, but to their emotional needs as well.	Journal article

Index	APA reference	Annotation	Type of item
30	Essel, H. B., Vlachopoulos, D., Adom, D., & Tachie-Menson, A. (2021). Transforming higher education in Ghana in times of disruption: flexible learning in rural communities with high latency internet connectivity. <i>Journal of Enterprising Communities: People and Places in the Global Economy</i> , 15(2), 296-312. https://doi.org/10.1108/jec-08-2020-0151	Explores the potential effects of teaching and learning through audio teleconferencing (dial-in) with a cell phone. Findings indicate no significant difference between students using audio or video teleconferencing.	Journal article
28	Essel, H. B., Vlachopoulos, D., Tachie-Menson, A., Johnson, E. E., & Ebeheakey, A. K. (2021). Technology-Induced Stress, Sociodemographic Factors, and Association with Academic Achievement and Productivity in Ghanaian Higher Education during the COVID-19 Pandemic. <i>Information</i> , 12(12), 497.	Examines technostress (which technology dependency and digital literacy are components of) as an effect of ERT, and reports on its adverse impact on academic achievement and productivity.	Journal article
26	Fataar, A., & Norodien-Fataar, N. (2021). Towards an e-learning ecologies approach to pedagogy in a post-COVID world. <i>Journal of Education</i> , 84, 1-14. https://doi.org/10.17159/2520-9868/i84a08	Argues for a reflexive pedagogy incorporating an e-learning ecologies approach to online learning to ensure epistemic equality, recognising that negating digital technology is not an option any more given its pervasive use and thus the focus in the article on the 'how' of appropriating digital technology.	Journal article
50	Feldman, J. (2020). An ethics of care: PGCE students' experiences of online learning during COVID-19. <i>Critical Studies in Teaching and Learning (CriSTaL)</i> , 8(2), 1-17.	Describes the online learning experiences of PG Certificate in Education students at one university in South Africa.	Journal article
87	Fernandes, A. C., & Gattolin, S. R. B. (2021). Learning to Unlearn, and then Relearn: Thinking about Teacher Education within the COVID-19 Pandemic Crisis. <i>Revista Brasileira de Linguística Aplicada</i> , 21(2), 521–546. https://doi.org/10.1590/1984-6398202117277	Reflective account of educators' experiences during the pandemic, and the realisation of the need to unlearn assumptions of traditional forms of teaching and learning. The paper highlights the need for a pedagogy of multiliteracies to exploit technology use with a considered and critical approach. It also unpacks the myth of the 'digital native', to ensure a more empathetic response from educators to developing the requisite	Journal article

Index	APA reference	Annotation	Type of item
		technological and digital literacy skills in students. The reference to Cope and Kalantzis' seven principles of e-learning is particularly helpful in ensuring that educators do not merely replicate old, unhelpful ways of teaching with new technologies.	
1	Fernandez, S. C., & Mammen, K. J. (2020). Selected Stakeholders' Views on the Use of Tablets for University Learning: A South African Case Study. <i>Journal of Technology Education</i> , 31(2), 5-18.	Thematic analyses of qualitative data revealed that students, lecturers, and managers all concurred that tablets have a positive impact on student learning.	Journal article
59	Gamede, B. T., Ajani, O. A., & Afolabi, O. S. (2021a). Exploring the Adoption and Usage of Learning Management System as Alternative for Curriculum Delivery in South African Higher Education Institutions during COVID-19 Lockdown. <i>International Journal of Higher Education</i> , 11(1), 71. https://doi.org/10.5430/ijhe.v11n1p71	The article endorses the adoption of LMSs in online learning in SA HEIs, but is not useful for our purposes.	Journal article
47	Ghavifekr, S., & Fung, H. (2021). Change Management in Digital Environments Amid the COVID-19 Pandemic: A Scenario from Malaysian Higher Education Institutions. In S. Saeed, M. P. R. Bolívar, & R. Thurasamy (Eds.), <i>Pandemic, Lockdown, and Digital Transformation</i> , pp.129-158. Springer.	Based on a single case study using a qualitative approach, this chapter aims to explore change-management procedures and digital transformation in HEIs amid the COVID-19 crisis. In addition, the chapter provides elaborations on the issues and challenges encountered in the implementation of e-learning during the pandemic from the management's perspective. Several prominent themes are identified, reflecting the issues and challenges in the implementation of e-learning during the time of COVID-19: technology resource and funding, managing stakeholders including staff and students, assessments and learning outcomes, mental health, as well as managing practical courses and research work.	Book chapter
75	Gloria, A. M., & Uttal, L. (2020). Conceptual considerations in moving from face-to-face to online teaching. <i>International Journal on E-Learning</i> , 19(2), 139-159.	Addresses six core considerations when shifting from a face-to-face to a blended to an online class in three academic semesters, consisting of real-time face-to-face interaction, lecture structure, instructor presence, learning objectives, course assessment, and transforming the LMS into a teaching tool.	Journal article

Index	APA reference	Annotation	Type of item
10	Harahap, S. D., Jimmi, J., Pattiasina, P. J., Trinova, Z., & Damayanto, A. (2022). Trends in Technological Innovation in Education During a Time of Pandemic Disruption: Examining the Perspective of Teaching Digital Pedagogy. <i>Nazhruna: Jurnal Pendidikan Islam</i> , 5(1), 37-50.	Analysis using secondary data published from 2010 to 2021. Not HE-specific. Not a deep analysis.	Journal article
97	HELTASA. (n.d.). Heltasa responds to COVID-19. Retrieved from https://heltasa.org.za/covid-19-tl/	From staff wellbeing to learning about social curriculum considerations, these short reflection pieces interspersed with webinar conversations provide some useful insights on challenges and opportunities that the pandemic created.	Blog
76	Hillman, V., Martins, J.P., & Ogu, E.C. (2021). Debates About EdTech in a Time of Pandemics Should Include Youth's Voices. <i>Postdigit Sci Educ</i> 3, 990-1007.	Youth perspectives on the impact of educational technology on their learning are highlighted in this article, in order to counter perceptions of digital inequalities worldwide versus the 'over-digitisation' of education, which has increased the risks of dataveillance and privacy loss. These two extremes intersect in their techno-deterministic drive, which risks sidelining students' perspectives.	Journal article
74	Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., & Bond, M. A. (2020). The difference between emergency remote teaching and online learning. Retrieved from https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning	An influential article produced early in the pandemic which has attracted 3,355 citations in two years. It stresses that ERT should not be equated with good online learning, and provides guidelines for evaluating ERT in order to learn from what institutions carry out over the course of the pandemic.	Thought/opinion piece
90	Jandrić, P., Hayes, D., Levinson, P., Christensen, L. L., Lukoko, H. O., Kihwele, J. E., Brown, J. B., Reitz, C., Mozelius, P., Nejad, H. G., Martinez, A. F., Arantes, J. A., Jackson, L., Gustafsson, U., Abegglen, S., Burns, T., Sinfield, S., Hogan, M., Kishore, P., . . . Hayes, S. (2021). Teaching in the Age of COVID-19 – 1 Year Later. <i>Postdigital Science and Education</i> , 3(3), 1073-1223. https://doi.org/10.1007/s42438-021-00243-7	Reflections on teaching in the pandemic from 71 academics worldwide provide insight into the individual changes and adjustments academics had to make. An analysis of these findings is still to be carried out.	Journal article

Index	APA reference	Annotation	Type of item
46	Jansen, J. D. (2021). What Does it Mean to Teach in the Shadow of COVID-19? A Critical Reflective Essay on the Future of Online Teaching in South African Universities. In N. Amin & R. Dhunpath (Eds.), (Re)Learning to Teach in Contexts of Crises (pp. 132-144). <i>Alternation African Scholarship Book Series (AASBS)</i> .	A useful reflective essay which reimagines the future of higher education using seven theses. Fairly high-level but still useful.	Book chapter
91	JISC. (2022). Professional services staff digital experience insights survey 2020/21 UK higher education (HE) survey findings. Retrieved from https://repository.jisc.ac.uk/8667/1/professional-services-staff-digital-experience-insights-survey-2021-uk-he.pdf	This new report delves into the digital experiences of 4,056 higher education professional services staff. Insights for our contexts include: clear communication & policies, having the right tools for the job, support, and wellbeing.	Survey report
72	Johnston, E., Burleigh, C., Rasmusson, X., Turner, P., Valentine, D., & Bailey, L. (2021). Multimedia Open Educational Resource Materials for Teaching-Online Diversity and Leadership: Aligning Bloom's Taxonomy and Studio Habits of Mind. <i>Higher Learning Research Communications</i> , 11(2).	Provides some interesting suggestions for incorporating open educational resources (OERs) to enhance process-oriented pedagogy, by evaluating two frameworks, viz. Blooms Taxonomy and the studio habits of mind (SHoM) framework.	Journal article
23	Strang, K. D., & Vajjhala, N. R. (2021). Impact of Vocational Motivation for Teaching ICT Online during COVID-19 Pandemic in Sub-Saharan Africa. 2021 IST-Africa Conference (IST-Africa), pp. 1-10.	Under the theme of internationalisation, the study aimed to examine the effectiveness of student learning when course design is in a different location compared to the possibly different learning culture of the domestic population at which the course is aimed. The results suggest that student learning was effective, but vocational motivation did not significantly impact grade. Learning impact was higher when students disregarded the learning objectives, which the researchers were able to explain theoretically. Conversely, learning impact was higher for many students who avoided tutoring, which the researchers also investigated.	Conference paper

Index	APA reference	Annotation	Type of item
24	Kadhila, N., & Nyambe, J. (2021). Barriers to the quality of emergency online pedagogies in higher education during the COVID-19 pandemic: A case study from the University of Namibia. <i>Journal of Learning for Development</i> , 8(3), 516-531.	Highlights the lack of attention on quality online learning while institutions consider all the other barriers to access online learning. Though focused only on the University of Namibia's experience, it does have wider appeal to other institutions in the South. Makes an argument to review the current quality assurance practices to enable critical thinking, and for students to be equipped with the requisite digital literacy skills.	Journal article
32	Kgari-Masondo, M. C., & Chimbunde, P. (2021). Progress of an African student during COVID-19 and beyond in higher education: Re-colonisation of decolonisation? <i>Perspectives in Education</i> , 39(1), 323-339.	This study asserts the pivot to online learning in the pandemic as having a similar impact to that of colonialism on African students. It suggests the adoption of a "Umntu Akalahlwa" pedagogy, which safeguards humanisation of all students to avert the re-colonisation of the decolonised.	Journal article
109	Khan, M. A. (2021). COVID-19's impact on higher education: A rapid review of early reactive literature. <i>Education Sciences</i> , 11(8), 421.	A useful summary of 61 papers from 2020, with recommendations. A rapid systematic review.	Journal article
57	Khoza, S. B., & Mpungose, C. B. (2020). Digitalised curriculum to the rescue of a higher education institution. <i>African Identities</i> , 1-21. https://doi.org/10.1080/14725843.2020.1815517	Explores the transformational experiences of academics at a SA HEI as they prepared for digitised teaching, and describes these experiences as addressing the tension between a performance curriculum and a competency-based curriculum. The study concludes by recommending the identification of values or ideologies relevant to the enactment of the necessary digitalised curriculum in the age of COVID.	Journal article
42	Knox, J. (2019). What Does the 'Postdigital' Mean for Education? Three Critical Perspectives on the Digital, with Implications for Educational Research and Practice. <i>Postdigit Sci Educ</i> 1, 357-370. https://doi.org/10.1007/s42438-019-00045-y	An explanation of the concept of the post-digital in education. Three critical perspectives: economic rationales, the role of the digital in educational policy, and the digital as 'material'.	Journal article
100	Landa, N., Zhou, S. & Marongwe, N. (2021) Education in emergencies: Lessons from COVID-19 in South Africa. <i>International Review of Education</i> 67, 167-183. https://doi.org/10.1007/s11159-021-09903-z	(1) Documentation of the intervention strategies developed by two universities located in South Africa's Eastern Cape province during the COVID-19 restrictions. (2) Challenges experienced by the two institutions' largely rural student population. Data was from a questionnaire completed by 15 educators and 30 students from the two universities, as well as communications documents from the universities addressed to lecturers	Journal article

Index	APA reference	Annotation	Type of item
		and students. Findings show access and inequity issues in relation to online platforms.	
93	Lee, K. (2022, March 7). Universities after COVID: as lecture theatres reopen, some pandemic teaching methods should live on. <i>The Conversation</i> . Retrieved March 9, 2022, from https://theconversation.com/universities-after-covid-as-lecture-theatres-reopen-some-pandemic-teaching-methods-should-live-on-174652	A blog piece providing a synopsis of the various teaching methods and approaches that were adopted during the pandemic, and recommendations as to what to take forward.	Blog
16	Ligami, C. (2021, June 10). Humanise online teaching and learning. <i>University World News</i> . Retrieved from https://www.universityworldnews.com/post.php?story=20210609201303562	Though not fully relevant, the article does highlight important issues related to the pivot to online, and provides a summary of key highlights of the Southern African Regional Universities Association (SARUA) colloquium.	News article
51	Mahlabane, S. (2020). Reasons why self-directed learning is important in South African during the COVID-19 pandemic. <i>South African Journal of Higher Education</i> , 34(6), 120-136. https://doi.org/10.20853/34-6-4192	Discusses the importance of self-directed learning and makes recommendations as to why universities need to nurture students with this skill to prepare for any future disruptions.	Thought/opinion piece
18	Makoe, M., & Olcott, D. (2021). Leadership for Development: Re-shaping Higher Education Futures and Sustainability in Africa. <i>Journal of Learning for Development</i> , 8(3), 487-500. Retrieved from https://jl4d.org/index.php/ejl4d/article/view/569	Includes recommendations for university leaders, including regarding open educational resources, micro-credentials, and zero-based resourcing.	Journal article

Index	APA reference	Annotation	Type of item
4	Malherbe, C., & Schutte, C.. (2021). Moving beyond the challenges and seizing the opportunities: a study of South African universities' efforts to protect their research and innovation offerings during the COVID-19 pandemic. <i>South African Journal of Higher Education</i> , 35(5), 138-162.	Focuses on the pandemic's financial impact on research and innovation offerings, with particular regard to the nature of research contracts. Given the prioritisation of teaching and learning capabilities during the pandemic, medium-low research-intensive universities were impacted to a lesser extent. The conflicting priorities of teaching and learning versus research are highlighted here.	Journal article
73	Manokore, V., & Kuntz, J. (2021). Replication or Reinvention: Educators' Narratives on Teaching in Higher Education During the COVID-19 Pandemic. <i>Higher Learning Research Communications</i> , 12(1).	Though focused on Canadian institutions, this article adds to the body of research recommending the importance of supporting educators to enhance their TPACK i.e. their technological pedagogical content knowledge competencies.	Journal article
61	Mavuru, L., & Ramaila, S. (2022). COVID-19 Pandemic as A Catalyst for Fostering Reformed Pedagogy in Science Education. <i>International Journal of Higher Education</i> , 11(4), 91. https://doi.org/10.5430/ijhe.v11n4p91	Study involved 21 purposefully selected in-service science teachers enrolled for postgraduate studies in science education at a South African university, and investigated how they negotiated and transformed their pedagogical practices during the pandemic at under-resourced schools.	Journal article
94	McKenzie, L. (2021, February). Bridging the Digital Divide: Lessons from COVID-19. Inside Higher Education. Retrieved from https://www.insidehighered.com/content/bridging-digital-divide-lessons-covid-19	Highlights strategies employed by institutions to promote student success in the short term, and shares recommendations for long-term change.	Report
2	Mendoza-Diaz, N., Mai, B., Martinez, J., Jabarkhail, S., & Garcia, D. (2020). Face-to-Face and Online Classes in a Technology Management Program: A Comparative Study. <i>Journal of Technology Education</i> , 32(1), 21-34.	The COVID-19 pandemic occurred after this study took place, but it raises questions regarding students who found themselves studying in a course format they had not selected. Do teachers need to change their understanding of such students' expectations?	Journal article

Index	APA reference	Annotation	Type of item
52	Mhlanga, D., & Molo, T. (2020). COVID-19 and the Digital Transformation of Education: What Are We Learning on 4IR in South Africa? <i>Education Sciences</i> , 10(7), 180. https://doi.org/10.3390/educsci10070180	Provides a positive spin on the pandemic by suggesting that pockets of excellence were made manifest in SA through the use of 4IR (fourth industrial revolution) tools which, according to the authors, have the potential to widen access.	Journal article
22	Mooney, G., Duma, M., Faloye, S., & Van Wyk, B. (2020). Emergency Remote Learning in the Times of COVID: A Higher Education Innovation Strategy. Academic Conferences and Publishing International Ltd, 2020. http://iiespace.iie.ac.za/handle/11622/579	Reports on how the private higher education institution (PHEI) sector in South Africa reacted to the COVID-19 disruption, especially in terms of lecturer preparation. Cognisant of the danger of digital exclusion, a strategy of “data-light” micro-learning alternatives was adopted, which this paper reports on. The other insight gained was in relation to the benefits of reaching out to students and reassuring them that their education will continue.	Journal article
53	Motala, S., & Menon, K. (2020). In search of the ‘new normal’: reflections on teaching and learning during COVID-19 in a South African university. <i>Southern African Review of Education with Education with Production</i> , 26(1). https://journals.co.za/doi/10.10520/ejc-sare-v26-n1-a6	An institutional case study of the University of Johannesburg, critically reviewing how its vision of quality teaching and equity was mediated by current events and its agility, highlighting some of the challenges and tensions that emerged. The study then examines what the “new normal” will mean for tertiary institutions in South Africa and globally, as preparation is made for a post-COVID-19 world.	Journal article
33	Motala, S., Sayed, Y., & de Kock, T. (2021). Epistemic decolonisation in reconstituting higher education pedagogy in South Africa: the student perspective. <i>Teaching in Higher Education</i> , 26(7-8), 1002-1018. https://doi.org/10.1080/13562517.2021.1947225	Looks at the decolonised educational space between students and lecturers, particularly during the pandemic, and examines the pattern of participation, knowledge forms, canon, and the decolonisation of the curriculum.	Journal article
55	Motaung, L. B., & Dube, B. (2020). WhatsApp Messenger as a Mediating Tool in Times of COVID-19 for Enhancing Student Engagement in e-Tutorials at a Rural South African University. <i>Journal of Educational and Social Research</i> , 10(6), 214. https://doi.org/10.36941/jesr-2020-0121	Addresses the difficulties experienced by students in their engagement with online tutorials, and describes these challenges in terms of access and digital literacy. The paper concludes with the need for universities to invest in “emancipating tutors”, provide greater access to devices for rural students, and other endeavours to reduce the urban and rural divide in South Africa.	Journal article

Index	APA reference	Annotation	Type of item
56	Mpungose, C. B. (2020). Emergent transition from face-to-face to online learning in a South African University in the context of the Coronavirus pandemic. <i>Humanities and Social Sciences Communications</i> , 7(1). https://doi.org/10.1057/s41599-020-00603-x	Proposes alternate pathways for students facing challenges in online learning. It exposes the digital divide as a hindrance to disadvantaged students' ability to realise the full potential of online learning, and suggests the need for alternate theoretical and practical pathways for institutions to adopt – but it is unclear what these may be.	Journal article
111	Mseleku, Z. (2020). A literature review of E-learning and E-teaching in the era of COVID-19 pandemic. <i>International Journal of Innovative Science and Research Technology</i> , 57(52), 6.	Useful analysis of 85 papers focusing on e-teaching and e-learning during the pandemic. Does not provide a useful set of recommendations.	Journal article
103	Naffi, N., Davidson, A.-L., Snyder, D. M., Kaufman, R., Clark, R. E., Patino, A., Gbetoglo, E., Duponsel, N., Savoie, C., Beatty, B., Wallace, G., Fournel, I., Ruby, I., & Paquelin, D., Akle, B., Baroud, F., Bates, T., Dede, C., Desjardins and Winer, L. (2020). Whitepaper: Disruption in and by centres for teaching and learning during the COVID-19 pandemic. <i>Leading the future of Higher Ed. Observatoire international sur les impacts sociétaux de l'IA et du numérique (OBVIA)</i> . ISBN: 978-2-9818996-5-1	The paper tracks the activities of centres for teaching and learning as first responders to the pandemic disruptions, and provides insights into the variety of challenges experienced by higher education players. It then presents the solutions which enabled ERT success, and can hence be a helpful piece of literature to draw on in drafting guidelines for the South African context.	White paper
68	National Council for Online Education. (2022). Emergency Remote Instruction Is Not Quality Online Learning. Retrieved from https://www.insidehighered.com/views/2022/02/03/remote-instruction-and-online-learning-arent-same-thing-opinion?mc_cid=4c9215f3d6&mc_eid=8dbe0024a7	This blog post says emergency remote teaching (or emergency remote instruction, emergency remote learning, etc.) does not equal quality online learning (QOL). It also explains the differences between the two and extols the virtues of QOL.	Blog

Index	APA reference	Annotation	Type of item
77	National Institute for Digital Learning. (2021, March 29). Higher Education 4.0: Exploring New Pedagogies for New Times. Digital Learning Dispatches. Retrieved from https://nidl.blog/2021/03/29/higher-education-4-0-new-pedagogies-for-new-times/amp/	This blog post by Dublin City University's National Institute for Digital Learning provides some useful insights into discussions around the 'Higher Education 4.0: Certifying your Future' masterclass and should be an important resource, as it takes into consideration the views of approximately 800 educators from around the world.	Blog
101	Ntombela, S. (2021). Reimagining South African higher education in response to COVID-19 and ongoing exclusion of students with disabilities. <i>Disability & Society</i> . doi:10.1080/09687599.2021.2004880	Descriptive paper advocating for the adoption of the Universal Design for Learning (UDL) to support students with disabilities.	Journal article
63	Okada, A., & Sheehy, K. (2020). Factors and Recommendations to Support Students' Enjoyment of Online Learning with Fun: A Mixed Method Study During COVID-19. <i>Frontiers in Education</i> , 5. https://doi.org/10.3389/educ.2020.584351	Explores the notion of fun in online learning with the concomitant influential components and connections. It investigated the beliefs and attitudes of a sample of 551 distance-education students, as well as pre-service and in-service teachers, consultants, and education professionals. Recommendations include consensual reviews for course teams, teaching staff and students to enhance online learning experiences with enjoyment and fun.	Journal article
6	Omidire, M. F., Aluko, F. R., & Mampane, M. R. (2021). Promoting the joy of teaching and learning in a diverse world. <i>South African Journal of Higher Education</i> , 35(5), 216-233.	Discusses the significance and role of the curriculum in promoting intrinsic motivation or joy in learning. Individuals want their identity, culture, language, and life experiences to form part of what is being learned. Recommendations include redesigning curricula to make them more relevant and inclusive – also regarding emotions.	Journal article
5	Ontong, J. M. (2021). Low-stakes assessments: an effective tool to improve marks in higher-stakes summative assessments? Evidence from commerce students at a South African university. <i>South African Journal of Higher Education</i> , 35(5), 234-255.	An important paper in addressing the issue of assessment, especially regarding the design of low-stakes formative and summative assessments. This study contributes to the existing literature by providing insights into commerce students' participation in lower-stakes assessments, as well as providing lecturers and other course developers with insights into the use of formative assessments and low-stakes summative assessments. Data collected prior to pandemic.	Journal article

Index	APA reference	Annotation	Type of item
38	Paliwal, M., & Singh, A. (2021). Teacher readiness for online teaching-learning during COVID-19 outbreak: A study of Indian institutions of higher education. <i>Interactive Technology and Smart Education, 18</i> (3), 403-421. https://doi.org/10.1108/itse-07-2020-0118	Comprises a survey of 296 teachers at HEIs across India which aims to assess HEI teachers' readiness to handle online education and provides guidelines for capacity building in this realm. The study's online tool, which tests readiness competencies, may be useful for analysing training needs.	Journal article
95	Pallit, N. (2020, April 3). HELTASA online conversation: Thinking beyond technology when teaching remotely [YouTube Video]. Retrieved from https://www.youtube.com/watch?v=YIzE6ey145E	The Higher Education Learning and Teaching Association of Southern Africa's (HELTASA's) TEL (Technology Enhanced Learning) CLC (Collaborative Learning Community) hosts an online conversation with academics as they share their thoughts, experiences and resources related to a thought piece by Pallit and Kramm on 'Thinking beyond technology when teaching remotely'.	Video, transcript, and relevant thought piece
92	Peimani, N., & Kamalipour, H. (2021). Online Education in the Post COVID-19 Era: Students' Perception and Learning Experience. <i>Education Sciences, 11</i> (10), 633. https://doi.org/10.3390/educsci11100633	This paper reflects on the findings of a survey of postgraduate students at Cardiff University (UK) regarding their perception of online teaching and learning during the pandemic. Significant findings are reported regarding the preference for live lectures, and the importance of eye contact for students in virtual lectures vis-à-vis their 'right' to see others' online formative feedback.	Journal article
70	Pelletier, K., Brown, M., Brooks, D.C., McCormack, M., Reeves, J., Arbino, N., Bozkurt, A., Crawford, S., Czerniewicz, L., Gibson, R., Linder, K., Mason, J. & Mondelli, V. (2021). 2021 EDUCAUSE Horizon Report Teaching and Learning Edition. Boulder, Colorado: EDU. Retrieved from https://www.learntechlib.org/p/219489/ .	Includes a chapter on the South African higher education sector and describes the inequities while raising crucial questions around data use, integrating data literacies into the curriculum, and OER uptake, among other pertinent issues.	Report
21	Perumal, N., Pillay, R., Zimba, Z. F., Sithole, M., van der Westhuizen, M., Khosa, P., Nomngcoyiya, T., Mokone, M., & September, U. (2021). Autoethnographic view of South African social work educators during the COVID-19 pandemic: Highlighting social (in)justice. <i>Social Work/Maatskaplike Werk, 57</i> (4), 393-409. https://doi.org/10.15270/57-4-964	Draws on reflective accounts of social work educators from nine HDIs and privileged universities in South Africa, and concludes with a variety of recommendations regarding structural inequalities that hinder student access, equity and success, and teaching and learning capacity-building strategies. Emphasises that the biopsychosocial wellbeing of both academics and students should be prioritised.	Journal article

Index	APA reference	Annotation	Type of item
86	<p>Pichardo, J. I., López-Medina, E. F., Mancha-Cáceres, O., González-Enríquez, I., Hernández-Melián, A., Blázquez-Rodríguez, M., Jiménez, V., Logares, M., Carabantes-Alarcon, D., Ramos-Toro, M., Isorna, E., Cornejo-Valle, M., & Borrás-Gené, O. (2021). Students and Teachers Using Mentimeter: Technological Innovation to Face the Challenges of the COVID-19 Pandemic and Post-Pandemic in Higher Education. <i>Education Sciences</i>, 11(11), 667. https://doi.org/10.3390/educsci11110667</p>	<p>Examines the use of innovative technologies, e.g. Mentimeter, which promotes engagement and active learning and is especially suited for diverse audiences because of its inclusive potential.</p>	Journal article
108	<p>Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. <i>Higher Education for the Future</i>, 8(1), 133-141.</p>	<p>Brief and limited review using data from 2020 only, with only 13 references.</p>	Journal article
105	<p>Potgieter, M., Pilcher, L. A., Tekane, R. R., Louw, I., & Fletcher, L. (2019). Lessons learnt from teaching and learning during disruptions. In <i>Research and Practice in Chemistry Education</i> (Eds. Schultz, M., Schmid, S., and G.A Lawrie 2019. Singapore: Springer, DOI: 10.1007/978-981-13-6998-8_6 (89-107).</p>	<p>A useful study on how the University of Pretoria coped with disruptions during the #FeesMustFall protests. Evidence of the resilience of lecturers as they embraced blended learning, and of their willingness to experiment and improve. Some suggestions for learning design of blended courses, with questions raised about equity and students' metacognitive awareness in a virtual learning environment.</p>	Book chapter
83	<p>Rapanta, C., Botturi, L., Goodyear, P., et al. (2021). Balancing Technology, Pedagogy and the New Normal: Post-Pandemic Challenges for Higher Education. <i>Postdigit Sci Educ</i> 3, 715-742. https://doi.org/10.1007/s42438-021-00249-1</p>	<p>Provides expert recommendations for the realisation of blended learning or technology-enhanced forms of teaching and learning for a HE future (while mindful that ERT during the pandemic lacked the requisite planning and considered development, and presented compromised teaching). Recommendations on flexibility, empowerment, professionalisation, and strategic decision-making strategies on three levels, i.e. macro, meso, and micro, are discussed. Closes with the important dilemma of whether hard or soft skills related to innovative learning should be the focus of discussion for institutions in the post-pandemic era, i.e. tech digitalisation skills or pedagogical preparation, and concludes on the possibility of several strategies that may be required depending on the institutions' needs.</p>	Journal article

Index	APA reference	Annotation	Type of item
104	Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2020). Online university teaching during and after the COVID-19 crisis: Refocusing teacher presence and learning activity. <i>Postdigital Science and Education</i> , 2(3), 923-945.	Discusses online-learning-related pedagogical content knowledge to help university academics teach online. Particular focus on the design of learning activities, the combination of three types of presence (social, cognitive, and facilitatory), and the need for adapting assessment to the new learning requirements.	Journal article
89	Robson, L., Gardner, B., & Dommett, E. J. (2022). The Post-Pandemic Lecture: Views from Academic Staff across the UK. <i>Education Sciences</i> , 12(2), 123. https://doi.org/10.3390/educsci12020123	Provides a useful insight into possible changed attitudes among lecturers toward lecture-capture technology, which were underpinned by a need to foster active learning, ascertain student understanding, and create a sense of belonging in remote learning spaces. As such the study suggests that academics in the UK are now ready and keen to adopt blended learning. To what degree this is true for our context remains to be tested.	Journal article
88	Salama, A. M., & Burton, L. O. (2022). Defying a legacy or an evolving process? A post-pandemic architectural design pedagogy. <i>Proceedings of the Institution of Civil Engineers-Urban Design and Planning</i> , 175(1), 5-21.	Focusing on the built environment, i.e. architecture and urbanism, this paper traces the evolution of the design pedagogy, providing a critical analysis of its development, and explores the opportunities to countenance the challenges brought on by the COVID-19 pandemic.	Journal article
58	Sasere, O. B., & Makhasane, S. D. (2020). Global Perceptions of Faculties on Virtual Programme Delivery and Assessment in Higher Education Institutions During the 2020 COVID-19 Pandemic. <i>International Journal of Higher Education</i> , 9(5), 181. https://doi.org/10.5430/ijhe.v9n5p181	The findings from this global study reveal the disparities in responses to virtual learning across HEIs and national contexts. Training and re-training of lecturers and students, and the provision of virtual learning-enabling infrastructure, are recommended to mitigate similar situations in future.	Journal article
15	Sayed, Y., Singh, M., Bulgrin, E., Henry, M., Williams, D., Metcalfe, M., Pesambili, J., & Mindano, G. (2021). Teacher support, preparedness and resilience during times of crises and uncertainty: COVID-19 and education in the Global South. <i>Journal of Education (University of KwaZulu-Natal)</i> , 84, 125-154.	Highlights lack of professional development for teachers to navigate complex uncertainties like pandemics. However, this stems from schooling level, rather than from the pandemic.	Journal article

Index	APA reference	Annotation	Type of item
84	Schwartzman, R. (2021). Unpacking Privilege in Pandemic Pedagogy: Social Media Debates on Power Dynamics of Online Education. <i>Journal of Communication Pedagogy</i> , 5, 17-24. https://doi.org/10.31446/JCP.2021.2.04	Highlights two major themes that emerged on a Facebook social media group called 'Pandemic Pedagogy', viz. 1) addressing student engagement on video conferencing (especially Zoom), and 2) the application of academic standards. A closer look reveals the inherent privilege dynamics which influence online learning, and as such serve to problematise the discourse of the decontextualised learner.	Journal article
3	Selingo, J. (2022, January 25). The Longer the Pandemic Lasts, The Greater Need for Change in Higher Ed. Forbes. Retrieved from https://www.forbes.com/sites/jeffreyselingo/2022/01/25/the-longer-the-pandemic-lasts-the-greater-need-for-change-in-higher-ed/	Focuses on the importance of a digital transformation agenda.	Blog
7	Serfontein, C., & Smit, A. V. A. (2021). Teaching modules: levels of cross-subsidy at a South African university. <i>South African Journal of Higher Education</i> , 35(6), 169-189. https://dx.doi.org/10.20853/35-6-4130	Highlights important considerations regarding the issue of teaching modules from a costing/financial perspective, i.e. do universities comprehend the levels of cross-subsidising of teaching modules, and can they afford it in this disruptive environment? Only one university was used for the study. Few references to teaching and learning, but useful for costing research.	Journal article
78	Slykerman, R. F., Li, E., & Mitchell, E. A. (2022). Students' Experience of Online University Education During the COVID-19 Pandemic: Relationships to Psychological Health. <i>Student Success</i> , 13(1), 32-40. https://doi.org/10.5204/ssj.2023	Examines the experience of 391 students regarding online learning, studying, and assessment during the pandemic, and investigates the association between these perceptions and measures of psychological health. The findings suggest an improvement in mental health when the pivot to complete online learning occurred. May be useful in investigating why online learning proved to alleviate pandemic-induced stress.	Journal article
66	Soudien, C. (2020). Systemic shock: How COVID-19 exposes our learning challenges in education. <i>Southern African Review of Education with Education with Production</i> , 26(1), 6-19.	Philosophical paper with a focus on "the shock of COVID-19" to the task of learning in deeper and more inclusive ways. The author suggests that education systems struggle with issues of difference – they have difficulty in holding the individual learning in view. Some suggestions for the future are offered.	Journal article

Index	APA reference	Annotation	Type of item
34	Tawafak, R. M., Alfarsi, G. M., Jabbar, J., Iqbal Malik, S., Mathew, R., AlSidiri, A., Shakir, M., & Romli, A. (2021). Impact of Technologies During COVID-19 Pandemic for Improving Behavior Intention to Use E-learning. <i>International Journal of Interactive Mobile Technologies (IJIM)</i> , 15(01), 184-198. https://doi.org/10.3991/ijim.v15i01.17847	This study aims to explore the roles and effects of technology-enhanced learning (TEL) in assisting pedagogy and abolishing technophobia among undergraduates, to overcome the pandemic and prevent the near-total closure of education in Middle East countries. Results show how the adoption of TEL helped to overcome the global lockdown of educational institutions, which might have affected the students' futures. Not particularly helpful.	Journal article
20	Thabethe, N., & Reddy, S. (2021). Community-based learning in higher education: A portal for knowledge production in the time of COVID-19. <i>Journal of Education</i> , 84, 1-18. https://doi.org/10.17159/2520-9868/i84a10	Using a Community of Inquiry framework, this qualitative study examines the epistemological experiences of students enrolled in community-based learning (CBL) programmes during the pandemic. It concludes that CBL can serve as a gateway for knowledge production between the community and the university, thus affirming the epistemic value that non-traditional students bring to the university.	Journal article
48	The Post-Pandemic University. (2022). The Post-Pandemic University. Retrieved from https://postpandemicuniversity.net	The Post-Pandemic University is a research platform facilitating exchange, collaboration, and networking between scholars who share a concern with how universities are being transformed by COVID-19, and how we might intervene in that process.	Blog
62	Tomma, M. M. A. A., Rushwan, I. M. H., & Garba, A. (2022). The Impact of Implementing Full E-learning During COVID-19 on the Students' Academic Performance in the Courses of Accounting and English Language (A Case Study: Students of the Department of Administrative Sciences - Community College in Khamis Mushait- King Khalid University- KSA). <i>International Journal of Higher Education</i> , 11(4), 120. https://doi.org/10.5430/ijhe.v11n4p120	Interesting insight on the statistically significant impact of "full e-learning" on students' performance in Accounting versus English, with Accounting not being affected, but English performance showing a negative impact.	Journal article
60	Tribble, D. J., Baldwin, A., & Nadelson, L. S. (2022). First-Year Students' Perceptions of Learning and Connection to the University in the Coronavirus (COVID-19) Pandemic World. <i>International Journal of Higher Education</i> , 11(4), 62. https://doi.org/10.5430/ijhe.v11n4p62	Description of US college students' experiences of ERT. Not very helpful or illuminating for our context.	Journal article

Index	APA reference	Annotation	Type of item
71	Trotter, H., Huang, C., & Czerniewicz, L. (2021). Seeking Equity, Agility, and Sustainability in the Provision of Emergency Remote Teaching During the COVID-19 Pandemic: A Center for Teaching and Learning Takes an Expanded Role. <i>Higher Learning Research Communications</i> , 12(0):1-24. http://hdl.handle.net/11427/36087 .	Focuses on the activities of one teaching and learning centre (UCT), with insights that reflect the need for a humanising pedagogical lens to be employed by teaching and learning centres, and for them to not be limited to practical and technical support.	Journal article
9	University of KwaZulu-Natal Teaching & Learning Project Plan. Accessed from https://ulop.ukzn.ac.za/wp-content/uploads/2022/08/Principles-of-emergency-online-teaching-new.pdf	Plan developed by a University of KwaZulu-Natal teaching and learning task team.	Institutional project plans and guidelines
8	Koseoglu, S. and G. Veletsianos. (2022). <i>Feminist Critical Digital Pedagogy: An Open Book</i> . EdTech Books. Retrieved from https://www.veletsianos.com/	Highlights the notion of a care-centred pedagogy brought to light in the context of a pandemic that has exposed the complexities in HE. Emotional labour and in particular educational technology support as a site of care are profiled, with gender issues and the concomitant pressures on working mothers, for example, also highlighted.	Book chapter
25	Waghid, Z., Meda, L. and Chiroma, J.A. (2021). Assessing cognitive, social and teaching presences during emergency remote teaching at a South African university. <i>International Journal of Information and Learning Technology</i> , 38(5), 413-432.	One of the first empirical studies (according to the author) that explores the influence of ERT on presences in the Community of Inquiry framework in an African HE context. The study may assist in developing appropriate pedagogical and intervention strategies suitable for ERT.	Journal article
27	Walwyn, D. R., & Combrinck, C. (2021). Epistemic justice during a global pandemic: Transforming curricula and pedagogical practices to improve student experiences of innovation studies. <i>Industry and Higher Education</i> , 35(5), 598-608.	Looks at epistemic diversity but, while recognising the promise of blended learning interventions to improve student learning, suggests that curriculum transformation – especially in STEM courses – might be required in order to achieve real epistemic equity.	Journal article

Index	APA reference	Annotation	Type of item
99	Wycliffe, O. (2022). Coming to Terms With COVID-19 Reality in the Context of Africa's Higher Education: Challenges, Insights, and Prospects. <i>Frontiers in Education, Vol. 7</i> , 14 February 2022. https://doi.org/10.3389/feduc.2022.643162	Fairly general 'perspective' paper. No empirical research involved. Useful to hear a voice from East Africa.	Journal article

BOOKS

Book name	APA reference	Blurb	Access
Perspectives on Higher Education: Impact of the COVID-19 Pandemic	McKimm, J., Al-Youbi, A., Al-Hayani, A., Elsaadany, S., Elsamanoudy, A., Hassanien, M., Jones, P., Yousef, S., & Mills, C. (2020). <i>Perspectives on Higher Education: Impact of the COVID-19 Pandemic</i> . Published independently. Retrieved from https://www.amazon.com/Perspectives-Higher-Education-COVID-19-Pandemic/dp/B08FP5NPP1 .	Designed to provide different perspectives on contemporary topics in higher education from an international perspective, this book is the first in a series of quick guides for those working and learning in universities around the globe.	Commercial
Online Teaching and Learning in Higher Education during COVID-19	Chan, R. Y., Bista, K., & Allen, R. M. (Eds.). (2021). <i>Online teaching and learning in higher education during COVID-19: International perspectives and experiences</i> . <i>Routledge Studies in Global Student Mobility</i> .	This timely volume documents the immediate, global impacts of the coronavirus pandemic (COVID-19) on teaching and learning in higher education. Focusing on student and faculty experiences of online and distance education, the text provides reflections on novel initiatives, unexpected challenges, and lessons learned.	Commercial

Book name	APA reference	Blurb	Access
COVID-19 and Higher Education in the Global Context: Exploring Contemporary Issues and Challenges	Ammigan, R., Chan, R., & Bista, K. (Eds.) (2021). <i>COVID-19 and Higher Education in the Global Context: Exploring Contemporary Issues and Challenges</i> . Star Scholars Network.	Addresses the lasting impact of the novel coronavirus (COVID-19) in the higher education sector and offers insights that inform policy and practice. Framed in a global context, this timely book captures a wide variety of topics, including student mobility, global partnerships and collaboration, student health and wellbeing, enrolment management, employability, and graduate education. It is designed to serve as a resource for scholar-practitioners, policymakers, and university administrators as they reimagine their work of comparative and international higher education in times of crisis.	Freely downloadable
Higher education's response to the COVID-19 pandemic: Building a more sustainable and democratic future (Vol. 25)	Bergan, S., Gallagher, T., Munck, R., & van't Land, H. (2021). <i>Higher education's response to the COVID-19 pandemic: Building a more sustainable and democratic future (Vol. 25)</i> . Council of Europe.	The book describes the various ways in which higher education is facing the COVID-19 pandemic. It is designed to help universities, specifically their staff and students as well as their partners, contribute to a more sustainable and democratic future.	Commercial
COVID-19: Interdisciplinary Exploration of Impacts on Higher Education.	Mgutshini, T., Oparinde, K., & Govender, V. (Eds.). (2021). <i>COVID-19: Interdisciplinary explorations of impacts on higher education</i> . African Sun Media.	Premised on the disruption and lessons learnt from the COVID-19 pandemic, and in meticulous response to the impact of the pandemic on higher education – especially in South Africa – this collection of chapters spotlights the effects, consequences, and ramifications of an unprecedented pandemic in the areas of knowledge production, knowledge transfer and innovation. With the pandemic, the traditional way of teaching and learning was completely upended.	Commercial

Book name	APA reference	Blurb	Access
Global Higher Education During COVID-19: Policy, Society, and Technology	McKeown, J., Bista, K., & Chan, R. (Eds.) (2021). <i>Global Higher Education During COVID-19: Policy, Society, and Technology</i> . Star Scholars Network.	Free e-book. <i>Global Higher Education During COVID-19: Policy, Society, and Technology</i> explores the impacts of the novel coronavirus (COVID-19) for global mobility in the field of international higher education. Specifically, this book responds to the growing need for new insights and perspectives to improve higher education policy and practice in the era of COVID-19.	Freely downloadable
Higher Education Implications for Teaching and Learning during COVID-19	Strawser, M. (Ed.). (2022). <i>Higher Education Implications for Teaching and Learning during COVID-19</i> . Rowman & Littlefield.	<i>Higher Education Implications for Teaching and Learning during COVID-19</i> provides different perspectives regarding the impact of COVID-19 on college teaching and learning and on students, both collectively and individually. Contributors argue that the pandemic forced a higher education reckoning as institutions around the world were forced to shut their physical doors and open up their online platforms in a wider capacity. While these concerns are linked to a certain point in time, there is much we can learn from collective institutional responses to the pandemic-induced pivots to virtual teaching and learning. Scholars of higher education, organisational communication, and crisis communication will find this book particularly useful.	Commercial
Handbook of Research on Asian Perspectives of the Educational Impact of COVID-19	Islam, M. R., Behera, S. K., & Naibaho, L. (Eds.). (2022). <i>Handbook of Research on Asian Perspectives of the Educational Impact of COVID-19</i> . IGI Global. https://doi.org/10.4018/978-1-7998-8402-6	<i>The Handbook of Research on Asian Perspectives of the Educational Impact of COVID-19</i> provides the current issues the education sector is facing in the aftermath of the COVID-19 pandemic. This book investigates the issues and challenges the education sector is facing, as well as the future directions needed to provide education in a more effective way. Covering topics such as academic	Commercial

Book name	APA reference	Blurb	Access
		perspectives, university-level employees, and leadership challenges, this book is a dynamic resource for students, teachers, pre-service teachers, school administrators, education providers, faculty, researchers, policymakers, and academicians.	
Handbook of Research on Developing a Post-Pandemic Paradigm for Virtual Technologies in Higher Education	Loureiro, S., & Guerreiro, J. (Eds.). (2021). <i>The Handbook of Research on Developing a Post-Pandemic Paradigm for Virtual Technologies in Higher Education</i> . IGI Global. https://doi.org/10.4018/978-1-7998-6963-4	<i>The Handbook of Research on Developing a Post-Pandemic Paradigm for Virtual Technologies in Higher Education</i> is a comprehensive reference book that presents the testimonials of teachers and students with various degrees of experience with distance learning and their utilisation of current virtual tools and applications for learning, as well as the impact of these technologies and their potential future use. With topics ranging from designing an online learning course to discussing group work in an online environment, this book is ideal for teachers, educational software developers, IT consultants, instructional designers, administrators, professors, researchers, lecturers, students, and all those who are interested in learning more about distance learning and all the positive and negative aspects that accompany it.	Commercial
The Impact of COVID-19 on Teaching and Learning in Higher Education	Studente, S., Ellis, S., & Desai, B. (Eds.) (2021). <i>The Impact of COVID-19 on Teaching and Learning in Higher Education</i> . BISAC. ISBN: 978-1-53619-947-5	This edited collection addresses the need to examine the far-reaching impacts of the COVID-19 pandemic upon teaching and learning in higher education, examining the challenges and opportunities associated with the impact of the COVID-19 pandemic, and outlining current perspectives, practices and innovations which will	Commercial

Book name	APA reference	Blurb	Access
		contribute to an understanding of the current situation for higher education institutions. Research and best practices on adapting to online modes of delivery and the implications of this are reported upon. The need for this edited collection is to share best practices with educators during this time of uncertainty.	
Handbook of Research on Emerging Pedagogies for the Future of Education: Trauma-Informed, Care, and Pandemic Pedagogy (1 st ed.)	Bozkurt, A. (2021). <i>Handbook of Research on Emerging Pedagogies for the Future of Education: Trauma-Informed, Care, and Pandemic Pedagogy (1st ed.)</i> . IAGI Global.	An important body of work capturing useful insights from education systems globally, and especially with regard to the importance of humanising teaching and learning. Contains chapters with a focus on higher education teaching and learning.	Commercial
Teaching, Technology, and Teacher Education During the COVID-19 Pandemic: Stories from the Field.	Ferdig, R.E., Baumgartner, E., Hartshorne, R., Kaplan-Rakowski, R. & Mouza, C. (Eds). (2020). <i>Teaching, Technology, and Teacher Education During the COVID-19 Pandemic: Stories from the Field</i> . Association for the Advancement of Computing in Education (AACE). Retrieved from https://www.learntechlib.org/p/216903/ . © 2020 Association for the Advancement of Computing in Education (AACE)	An 850-page book consisting of sections: Online Pedagogical Strategies, Community and Collaboration, Alternative Field Experiences in Pre-Service Teacher Education, Pre-Service Teacher Education Methods and Pedagogy, K-16 Educator Professional Development, Digital Tools, and Equity Issues.	Freely downloadable
Teaching in the Post COVID-19 Era	Fayed, I., & Cummings, J. (2021). <i>Teaching in the Post COVID-19 Era</i> . Cham, Switzerland: Springer.	Describes practical educational technology solutions implemented during the COVID-19 situation, and implications for future adaptation. Details programme-specific designs and curriculum innovations in online teaching/learning that address the needs of international post-secondary students, immigrants, and refugees. Includes sociological analyses of educational provisions during crisis situations. Addresses sustainability of education during the 21st century crisis events, and the future of education. Represents diversity, both conceptual	Commercial

Book name	APA reference	Blurb	Access
		and practical, in the initiatives reported from different educational contexts.	
COVID-19 and higher education: Today and tomorrow. Impact analysis, policy responses and recommendations.	UNESCO. (2020). <i>COVID-19 and higher education: Today and tomorrow. Impact analysis, policy responses and recommendations</i> . UNESCO. ISBN: 978-980-7175-52-4©UNESCO IESALC. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000375693 .	This report, prepared by the technical team of the UNESCO International Institute for Higher Education (IESALC), begins by highlighting the immediate impacts of the pandemic on the university higher education sector, both in terms of the individual actors and the institutions and system as a whole. Some impacts, which are not immediately visible, are nevertheless very significant, and will surface in the medium and long term. Secondly, it reviews those actions taken by governments and HEIs to guarantee the right to higher education during the pandemic. Finally, it considers various scenarios, and offers some observations and recommendations with regard to the reopening of HEIs, and highlights the importance of initiating preparations at the earliest.	Freely downloadable
The Low-Density University: 15 Scenarios for Higher Education	Kim, J., & Maloney, E.J. (2020). <i>The Low-Density University: 15 Scenarios for Higher Education</i> . Baltimore: Johns Hopkins University Press. doi:10.1353/book.77218.	In this concise guide, authors Edward J. Maloney and Joshua Kim lay out clear ways colleges and universities can move forward in safe and effective ways. <i>The Low-Density University</i> presents 15 scenarios for how colleges and universities can address the current crisis – from a fully online semester to others with students in residence and in the classroom. How can changing the calendar or shifting to hybrid models of blended classrooms impact teaching, learning, and the college	Openly licensed

Book name	APA reference	Blurb	Access
		<p>experience? Could we emerge from this crisis with new models that are better and more adapted to today's world? <i>The Low-Density University</i> focuses primarily on teaching and learning, but student life (housing, athletics, health, etc.) is core to the college experience. Can we devise safe and effective ways to preserve the best of that experience? The lessons here extend beyond the classroom. Just as the pandemic will change American higher education, the choices we make now will change what college looks like for generations to come.</p>	
<p>Learning Online: What Research Tells Us About Whether, When and How</p>	<p>Means, B., Bakia, M., & Murphy, R. (2014). <i>Learning Online: What Research Tells Us About Whether, When and How</i>. Routledge., 4 April 2014. ISBN 9780415630290</p>	<p><i>Learning Online</i> synthesises research findings on the effectiveness of different types of online learning, but a major message of the book is that student outcomes arise from the joint influence of implementation, context, and learner characteristics interacting with technology--not from technology alone. The book describes available research about how best to implement different forms of online learning for specific kinds of students, subject areas, and contexts. Building on available evidence regarding practices that make online and blended learning more effective in different contexts, <i>Learning Online</i> draws implications for institutional and state policies that would promote judicious uses of online learning and effective implementation models. This in-depth research work concludes with a call for an online learning-implementation research agenda, combining education institutions and research partners in a collaborative effort to generate and share evidence on effective practices.</p>	<p>Commercial</p>

Book name	APA reference	Blurb	Access
(Re) Learning to Teach in Contexts of Crises.	Amin, N. (Eds). (2021). <i>(Re) Learning to Teach in Contexts of Crises</i> . Alternation. https://doi.org/10.29086/978-0-9869936-6-4/2021/aasbs08	It is our belief that this body of scholarship adds value to our understanding about teaching during a crisis and, beyond that, to unexpected conditions that will arise without forewarning in years to come. Its contribution is pertinent for our emotional and cognitive wellbeing because it is evidence of resilience, and deep and insightful learning that those in higher education have gained – and, more importantly, that it does not matter where, and when the (re)learning, learning, and unlearning take place. It matters that all kinds of learnings are taking place and are worth sharing.	Available via UKZN website as per URL
Understanding Higher Education	Boughey, C., & McKenna, S. (2021). <i>Understanding Higher Education: Alternative Perspectives</i> . African Minds.	Drawing on the South African case, this book looks at shifts in higher education around the world in the last two decades. In South Africa, calls for transformation have been heard in the university since the last days of apartheid. Similar claims for quality higher education to be made available to all have been made across the African continent. In spite of this, inequalities remain, and many would argue that these have been exacerbated during the COVID-19 pandemic. <i>Understanding Higher Education: Alternative Perspectives</i> responds to these calls by arguing for a social account of teaching and learning by contesting dominant understandings of students as “decontextualised learners” premised on the idea that the university is a meritocracy. This book tackles the issue of teaching and learning by looking both within and beyond the classroom. It looks at how higher education policies emerged from the notion of the knowledge economy in the newly democratic South Africa, and how national qualification frameworks	Openly licensed

		and other processes brought the country more closely into conversation with the global order. The effects of this on staffing and curriculum structures are considered alongside a proposition for alternative ways of understanding the role of higher education in society.	
E-learning Ecologies: principles for new learning and assessment	Cope, B., & Kalantzis, M. (2017). <i>e-learning Ecologies: principles for new learning and assessment</i> . New York: Routledge. https://doi.org/10.4324/9781315639215	<i>e-Learning Ecologies</i> explores transformations in the patterns of pedagogy that accompany e-learning – the use of computing devices that mediate or supplement the relationships between learners and teachers – to present and assess learnable content, to provide spaces where students do their work, and to mediate peer-to-peer interactions. Written by the members of the “new learning” research group, this textbook suggests that e-learning ecologies may play a key part in shifting the systems of modern education, even as technology itself is pedagogically neutral. The chapters in this book aim to create an analytical framework with which to differentiate those aspects of educational technology that reproduce old pedagogical relations from those that are genuinely innovative and generative of new kinds of learning. Featuring case studies from elementary schools, colleges, and universities on the practicalities of new learning environments, <i>e-Learning Ecologies</i> elucidates the role of new technologies of knowledge representation and communication in bringing about change to educational institutions.	Commercial

ANNEXURE B: Summary of recommendations from surveys and reviews

Note: Broad recommendations from the literature and recommendations from individual papers based on small studies are not included here.

CHE, USAF & UFS (2021) Staff Experience of and Perspectives on Teaching and Learning and its Future (SEP-TLF)

Two broad categories; all 10 recommendations are fairly high level (pp. 44-45).

Enabling environment for learning

1. Recognising the importance of resources and infrastructure
2. Reimagining the integration of pedagogy and technology
3. Reconceptualising staff development
4. Enhancing staff development communication
5. Empowering academic leaders

Enhancing the quality of teaching and learning

6. Safeguarding academic integrity
7. Developing uniform QA guidelines
8. Enabling digital skills
9. Giving recognition for quality teaching and learning
10. Using analytics to enable understanding and quality

Department of Higher Education and Training (2020): Students' Access to and Use of Learning Materials (SAULM)

Instead of a set of recommendations, the report provides a synthesis of findings, and considerations for policy and practice (pp. 64-69).

Synthesis of findings

- Learning materials
- Access to devices, data and connectivity
- Engagement with educational technology
- The challenges and benefits of technology and learning
- Students are resilient and institutions are responsive

Considerations for policy and practice

- Basic learning infrastructure is critical
- Digital skills development needs to be prioritised at institutional and national level
- Flexible content delivery platform(s)
- Enhancing financial aid
- Using the crises to reimagine learning and teaching
- Reconceptualisation of subsidy assumptions and quality assurance

Khan (2021): COVID-19's impact on higher education: a rapid review of early reactive literature

Carries out quite a useful thematic analysis but lists recommendations by publication rather than by theme.

- Improving ICT facilities
- Training staff and students more effectively
- Involving students in the design process - pacing the level of student feedback
- Monitoring engagement with ICT
- E-guests have facilitated student learning
- Students working at their own pace
- Students working in their own time
- Students having choice over their learning
- Students engaging regularly with the teacher, other students, and subject matter
- Using social media for personal profiling, relationship-building, content-creation, and socialising
- Using social media to keep connected and feel less remote
- Creating virtual private networks

- Finding alternative ways to obtain unavailable manuscripts – Cooperating with international or regional libraries
- Encouraging educators to have shared goals in relation to moving education online
- Encouraging a participative culture
- Using a system of mentorship
- Encouraging students to develop peer-to-peer learning approaches
- Focusing more on value than on quality
- Recognising the algorithm as a replacement for the professor
- Promoting inter-university collaboration on the provision of digital services via libraries
- Using a standards-based modification of existing courses to improve online learning experiences
- Paying attention to navigation, readability, and accessibility during digital transformation of courses
- Transforming libraries and offering new visions for services which focus on building new relationships within communities
- Flipping the classroom (online)
- Ensuring educators introduce humour into online environment
- Offering online live classrooms
- Offering online on-demand teaching

Abu Talib, Bettayeb, & Omer (2021): Analytical study on the impact of technology in higher education during the age of COVID-19: Systematic literature review

A useful thematic analysis, although the recommendations are not grouped.

- **Support for students:** boosting and maintaining students' motivation to improve morale and help combat any lockdown-induced stress or anxiety.
- **High-quality tools:** providing accessible, user-friendly, error-free and high-quality e-learning portals and other types of online platforms.
- **Providing and receiving feedback:** providing and receiving feedback to and from students to improve the quality of online education.
- **Investigating efficacy:** exploring the outcomes of ODE and reflecting on the differences between it and traditional education in order to ascertain which

aspects of it are viable and meet the demands set by the pandemic situation. This is also to assist teachers in employing effective teaching techniques, and to enable researchers and institutions to continue the development of online educational tools.

- **Stating objectives:** students need to feel the relevance of the study material to the real world, as well as understand the course requirements. To that end, teachers must spell out expectations and clarify course objectives as well as the importance of the syllabus. They also need to delineate their roles and responsibilities as lecturers and mentors early in the academic year.
- **Policymaking:** policymakers should seek to understand and mitigate any risks or inequalities created by this rapid transition to online learning which may be caused by income or workload disparities.
- **Redesign:** the revisiting and rethinking of pedagogical strategies and the development of orienting principles to guide the transition to online education, as well as making the necessary adjustments to infrastructure.
- **Training of staff and students:** providing students and teachers with adaptability training to familiarise them with technology, increase their competence, and prepare them to deal with technical issues that can occur during online lectures. This will also help in the smart application of technology to realise its potential in the realm of online education.
- **Diversifying:** maximising efficiency by avoiding reliance on a single method or platform and instead using a variety of online learning resources. For example, a course could use both video conferencing and text messaging.
- **Broadening accessibility:** this could mean providing underequipped students with the equipment necessary to partake in online activities, such as electronic devices and a stable internet connection.



Published by:

Council on Higher Education,
South Africa

1 Quintin Brand Street
Persequor Technopark
Brummeria
Pretoria
South Africa

Tel : +27 12 349 3840

Fax : +27 12 349 3928

Website : www.che.ac.za

Material from this publication
may not be reproduced without the
CHE's permission.

© Council on Higher Education,
Pretoria; 2023



COUNCIL ON HIGHER EDUCATION