

Chapter 20:

Trends and Gaps in Distance Education Research

Tony Mays, Commonwealth of Learning in Vancouver, Canada

Introduction

The topic assigned for this chapter is one of those ‘how long is a piece of string?’ issues given that distance education has been around for a very long time, a lot has been published, and so we need immediately to start by limiting the scope somewhat to trends and gaps in (recent) distance education research. Moreover, education is by nature multi-disciplinary and so the research needs and interests of educators can be expected to be similarly diverse. Distance education practitioners, as a subset of educators more generally, can similarly be expected to have such diverse needs and interests, including exploring and understanding the changing issues and challenges associated with distance education methods of provision. For example, the interesting visualisation project Shape of Science which currently maps 25 308 journals, and seeks to ‘reveal the structure of science’, organises the mapping within the established fields of medicine, psychology, humanities, social sciences, engineering, mathematics, biology, and chemistry. Not surprisingly, education-related journals can mostly be found in the quadrant with intersections between psychology, humanities, and social sciences. Education and teaching research is also primarily located under arts and humanities in the SCImago Journal and Country Rank Scimago . Thinking of research as a web of inter-related understandings in this way cautions us that research of interest to distance educators may appear in sources that do not specifically use the term ‘distance education’, for one thing distance educators will also be interested in research in the disciplinary areas which they teach using distance education methods.

However, distance education as a concept, and as an expanding suite of diverse methods, is increasingly mainstreamed as education systems respond to the changing demands for lifelong learning as well as other challenges effecting campus-based provision including unrest, migration, climate change, and the recent pandemic (Xiao 2018; Pregowska et al. 2021). Although there have

been several publications about distance education or aspects thereof in recent years (for example Cleveland-Innes and Garrison 2020; Saykih 2018; Seaman et al. 2018; Simonson et al. 2019), including an e-book version of a classic distance education textbook (Sewart et al. 2020), and the ongoing revision of another related seminal text on teaching in a digital age (Bates 2021), there seem relatively few journals dedicated to publishing research in the field of distance education practice. In this chapter, the author explores some of the leading journals dedicated to distance education research and examines some of the recent trends in what is being researched.

Moreover, as noted by Saykili (2018), Bozkurt (2019), and Van den Berg (in this publication), the notions of distance education (DE) and the related notions of open and distance learning (ODL), and more recently open, distance, and e-learning (ODEL), are constantly evolving, so research of interest to distance education practitioners might well be found in sources that do not explicitly use the term 'distance education'. Given the increasing role of technology in mediating learning and increasing interest in providing flexible lifelong learning, research related to variations of these terms will also likely be of interest.

Proceeding from the perspective of a pragmatic (Hookway 2016) social scientist (Babbie 2016, 2017) approach, concerned to find practical, but not permanent, solutions to constantly changing education challenges, in ways that are grounded in appropriate research, this chapter explores three inter-related questions:

What research seems likely to be of interest to distance educators?

Where is research being undertaken and what is being shared?

What gaps, if any, can be seen between probable needs/interests and the research available?

Rationale for the study

In a special issue of the *Journal of Learning for Development*, Panda (2020) notes that the recent pandemic accelerated the move to finding alternative modes of provision, especially online forms of provision. As noted by many scholars, however, remote or emergency online teaching is qualitatively different from the more thoughtful process of intentional online provision (Hodges

et al. 2020; Mohammed et al. 2020). Nonetheless, as Anderson and Rivera-Vargas (2020) suggest, the move online by traditional contact institutions may have begun to erode the distinctness of distance education provision, and now both contact- and distance-providers of online learning face some similar challenges regarding, for example, how ethically to use the rich data available in online provision and how to improve retention and success rates for students we may seldom, if ever, meet in person. As noted by Cleveland-Innes and Garrison (2021), it behoves providers to revisit the nature of distance education provision for a new era, and as observed by Kanwar and Daniel (2020), we can learn from much recent practice in moving from response to resilience. This chapter therefore explores what research is currently being reported about distance education practice with a view to identifying possible gaps.

Methods

With respect to the first question—What research seems likely to be of interest to distance educators?—it is important to have some idea of what distance education practitioners would probably be interested to read research about in order to judge whether there are any gaps between expectation and reality.

Therefore, two recent publications based on reviews of the literature on distance education policy and practice were identified and the key issues summarised to identify some of the recurring themes/issues under discussion. This led to development of an illustrative set of key research questions. This initial list was extended as the author engaged further with the literature.

With respect to the second question—Where is such research being undertaken and what is being shared?—Mishra (2019) undertook a search for journals then listed with Bielefeld Academic Search Engine (BASE), Education Resources Information Centre (ERIC), Directory of Open Access Journals (DOAJ), Elsevier’s Scopus, and WorldCat, as well as journals cited by authors who publish with the *Journal of Learning for Development*. To these examples we should add ISI/World of Science and might usefully now also add OpenAlex. Very helpfully, a not-for-profit corporation established by the government of Ontario in 1986 called ContactNorth now maintains a Searchable Directory of Selected Journals in Online and Distance Learning. Not all the journals included focus directly on distance education, but they often include articles of a related nature.

A comparison made between the listing provided by ContactNorth, the study by Mishra (2019), and journals for which the author has been asked to review papers suggest that the following

journals should also be considered in addition to those listed by ContactNorth:

- Educational Researcher
- E-Learning
- eLearning Papers
- Information Technology for Development
- International Journal of Educational Research Open
- Internet & Higher Education
- Journal of Educational Technology
- Journal of Information and Computer Technology Education
- Journal of Online Learning and Teaching
- Journal of Learning for Development
- Online Journal of Distance Learning Administration
- Progressio: South African Journal for Open and Distance Learning Practice
- The Journal of Open, Distance and e-Learning
- The Journal for Open and Distance Education and Educational Technology
- Teacher Education through Flexible Learning in Africa
- Turkish Journal of Distance Education

124

It was initially intended to analyse approximately three issues of approximately 70 journals—about 210 issues in all.

However, time did not allow. Moreover, after the first fifteen journals had been mapped, the next five resulted in few additional new concepts, suggesting perhaps saturation had been reached with this sample. So, the current discussion is based on twenty journals and approximately 60 issues.

Again, following Mishra (2019), a content analysis was conducted to try to understand the focus areas of research publications in recent issues, although this was done manually focusing primarily on trends noted in editorials and mapping key concepts in an Excel spreadsheet in relation to the last three issues of each journal available as open access. Once a concept/term had been used once in a particular journal it was logged and not repeated even if other papers have also used the term. This was because it was interesting to explore coverage across journals rather than within a journal, especially given that there are sometimes special issues which focus on a particular topic throughout the issue.

Of course, the identification of key issues is a bit idiosyncratic, and the search was limited to journals available in English, so there are significant limitations in what can be generalised, if anything, from this discussion.

Based on the findings in relation to the first two questions, some areas for new or additional research were identified.

Findings

What research seems likely to be of interest to distance educators?

As noted by COL (2020) and Mays (2020), an analysis of open, distance, and e-learning policies and quality guidelines suggests that the following questions, among others, would likely be of interest for research purposes:

How is the concept and practice of distance education evolving?

How are changes in society, the workplace, and in our understandings of how people learn, influencing distance education policy and practice?

125

Why is distance education being used, what impact is it having, and for whom?

How are potential tensions between access, cost, inclusion, quality, and the environment being addressed?

Who is benefiting from distance education provision and how, and how can provision be improved?

What principles, values, and purposes underpin distance education provision and why?

What policies exist related to distance education, what do they cover and why, and do they support or impede evolving practice?

What are the implications of cross-border provision, and how can we ensure quality learning experiences and achievement of worthwhile qualifications?

Does Distance Education in the Developing Context Need More Research? Building Practice into Theory

What are the key systems needed for quality distance education provision and how are they monitored, evaluated, and improved?

What planning and monitoring processes add value to distance education provision?

How can governments, public providers, and private providers contribute most effectively to distance education provision?

How well is technology-enabling effective learning through distance education?

How well are learners being supported to turn access into success?

How inclusive is distance education provision?

How are data analytics being used and what are the issues?

How are open educational resources (OER) and open educational practices (OEP) contributing to effective distance education provision?

How is/should distance education provision be funded?

What distance education research is needed?

This is obviously not an exhaustive list, and all the questions could be phrased differently, but it does show the wide scope of probable areas of research interest. Within the broad scope illustrated, there will be many more nuanced questions which distance education practitioners would likely want to explore—for example, the impact of using a new technology in the provision of distance education to a particular cohort of learners over a particular period for a particular subject.

Where is such research being undertaken and what is being shared?

A search using the term 'distance education' in BASE yielded 5 079 hits from 281 945 553 documents. In similar vein 'online education' yielded 2 990 hits, 'open education' 696, 'open and distance learning' 161, and 'open distance and e-learning' zero hits. This is perhaps not surprising given the longer history of the term 'distance education'. It is also understood that neither online learning nor open education/learning are necessarily distance education provision, although much

such provision could be so classified, and all forms of education provision involve an element of 'transactional distance' which might be mediated using appropriate technology in appropriate ways (Weidlich and Bastiaens 2018). It was interesting to observe that few of the journals and other sources which reported research in which 'distance education' was mentioned actually used this term in their titles. A similar finding was observed in exploring the citations of authors published in recent issues of the Journal of Learning for Development, for which the author is currently the managing associate editor.

As recent issues of selected Journals were reviewed, key topics and concepts were mapped in a spreadsheet and clustered into 'like' terms. The incidence of mention of these terms in subsequent journal reviews was then tagged.

Ninety-four different topic/concept clusters were identified.

As was to be expected, there has been recently a lot of focus on the move into distance and online provision due to the recent pandemic (10/20 journals reviewed mentioned this), with a lot of distinction being made between well-planned provision and emergency remote teaching (Abdulrahman et al. 2020). In fact, four of the twenty journals had published a special issue with this focus.

Variations on the term 'technology' came up quite often (10/20), as did references to data and learning analytics, assessment, and online learning/teaching which were focus areas for 8/20 journals. Next were references to instructional design, development, or support (at 7/20). The next most frequently mentioned topics (at 6/20) were blended or hybrid learning; collaboration, partnerships and communities of learning or teaching; videos and video-conferencing; and virtual reality. The last clusters deemed to be significant (at 5/20) were diversity (including cultural and indigenous issues); English language and literacy; inclusion (including disability, LGBTQA+, refugees, and immigrants); and emergency remote teaching.

The topics which had emerged from the analysis were then further clustered in relation to conceptual areas related to the questions of interest identified earlier as follows:

Concept (this involves any discussions related to the changing nature of DE/ODL/ ODeL, blended/hybrid/remote provision and underpinning values, purposes, or principles which inform decision-making)

Cross-border provision (and the implications thereof for equality of opportunity and value)

Does Distance Education in the Developing Context Need More Research? Building Practice into Theory

Distance education (systems, practices, design and development, pedagogy, professional development, and quality assurance)

External influences (this would include the impact of COVID-19, for example)

Learner support (including issues related to inclusion for access and success, language and literacy support, peer, tutor, administrative engagement, and the role of formative assessment)

OER/OEP

Policy and research (including issues related to stakeholder engagement, funding and public or private provision, and the challenges for researching distance education and how can they be addressed including how research informs both policy and practice).

128

Technology enabled learning (TEL) (including research which focused on particular technologies such as MOOCs or videos, as well as data and learning analytics).

These clusters can be mapped to Zawacki-Richter et al.'s (2009) useful classification of research areas in distance education which distinguishes between macro-level distance education systems and theories (for example 1 and aspects of 2 and 7 above); meso-level management, organisation, and technology (for example 3, 4, 5, 6, and 8 above, as well as aspects of 7); and micro-level teaching and learning (for example aspects of 2 and 3 above).

Not surprisingly, research related to aspects of TEL was most frequently shared (88/232 journal instances). The research related both to affordances such as platform analytics, use of artificial intelligence, augmented and virtual reality, robotics and digital micro-credentials and badges, as well as specific examples of use such as MOOCs, e-portfolios, videos, and various social media.

Issues broadly related to learner and learning support were next most frequently shared (58/232 journal instances). The research reported on issues such as inclusion, language and literacy support, peer discussion and support, and the development of agency and self-regulated learning. Given the strong focus on use of technology, it was not surprising to find the notion of 'cyberwellness' also being discussed.

The next category was conceptual (with 33/232 journal instances). Apart from definitional issues

related to emergency remote teaching, blended, and hybrid provision it was interesting to note the continuing reference to two key conceptual models 'transactional distance' (Moore 1997) and 'community of inquiry' (Garrison et al. 2000), and the importance of social and teacher presence. Some of the principles identified in the research reported included connectedness, flexibility, ethics, innovation, lifelong learning, resilience, student satisfaction, sustainable development, and digital equity.

Typical distance education system, process, and procedure issues were the next most cited in the sample of journals reviewed (31/232 instances). Here, key issues were instructional design, development, support, and related staff development. This was linked to concerns about appropriate pedagogy, scale, quality, and the challenge of 'drop-outs' was also mentioned.

As reported above, the key external influencing factor in this period was the impact of the COVID-19 pandemic (10/32).

Very little research was shared about policy issues (8/232), but the importance of leadership and the role of parents was mentioned, as well as the link between scale, quality, and cost and the interplay between research, policy, and practice.

Given that the pandemic had seen a resurgence of MOOCs, it was thought that it might be interesting to see if there had been any significant discussion of cross-border provision and the adaptations to support access and success in different regions. However, this issue did not come up in the sample.

Discussion

In this section, the focus is on the research question: What gaps, if any, can be seen between probable needs/interests and the research available?

In an earlier and more extensive study, Bozkurt et al. (2015) provide a useful history of research in distance education and then found that their own study confirmed a trend that had been identified in earlier studies of published research being skewed towards teaching and learning processes. They also observed that most published research had focused on higher education provision and that there might be a need for more research into schooling provision given the increasing use of e-learning (a trend that was subsequently further accelerated when the pandemic closed school campuses). A subsequent study by Bozkurt and Zawacki-Richter (2021) came to similar conclusions and identified the need to identify a proactive research agenda.

Part of such an agenda should probably be to create a stronger link between past research in distance education and current research related to open and distance learning and open and online provision. For example, current research into the practice of open online forms of provision often neglects to acknowledge the history of prior research into open and distance education research (Weller et al. 2018). They identify eight distinct areas within the broader open education field where research has been undertaken but with surprisingly little cross-referencing: open access, OER, MOOCs, open educational practice, social media, e-learning, open education in schools, and distance learning. They further observe ‘... evidence of a lack of solid connections between what intuitively would appear to be strongly related areas. It also highlights the importance of publications that act as nodes between these “islands”, forming possible bridges between the communities’ (Weller et al. 2018: 121). Another issue of concern for a new research agenda is the dominance of publications based in developed countries, especially the US and the UK (Amoozegar et al. 2018), potentially at the expense of limited relevance or insight into nuancing, which might be needed to realise the potential of DE, ODL, or ODeL provision in a wide variety of developing contexts.

130

As noted, the key external factor which has dominated the educational discourse recently is the COVID-19 pandemic, which forced a migration to online means of communication, which was unevenly accessible to both teachers and learners. There is some evidence that providers already familiar with ODeL provision experienced less ‘chaos’ in the move online (Naidu 2021), but the lessons of experience about what worked and did not work and how institutions and educational systems can become more resilient post-pandemic are still emerging (Kanwar and Daniel 2020), and therefore more research is needed—perhaps particularly from regions which seem currently under-reported. On this issue, a study by Srivistava et al. (2020) found that the number of publications related to ODeL provision in India was disproportionate to the number of providers. Moreover, it found that what had been published was skewed towards teaching, learning, and evaluation issues and not enough research was being reported in relation to issues such as globalisation, networking, funding/economics, institutional values, or ‘best’ practices.

It has also been reported that there seems to be relatively little research on adaptation of courses and materials for different cultures (Abdulrahman et al. 2020).

In a more extensive but similar recent study, Cukurbasi et al. (2021) observe that few studies related to educator, staff and administrator workload, and roles have been published in the last decade.

A later study by Mishra et al. (2021) explored research trends during the pandemic given the widespread adoption of various forms of online distance learning during the pandemic. They

noted an emphasis on technologies, assessment, teacher capacity, and institutional readiness for new forms of provision.

In another study focused on the same period but limited to the context of South Africa, Madiope and Mendy (2021) suggest the need for future research to compare the learning outcomes of students involved in face-to-face and distance education in relation to the variety of ways teaching and learning strategies were adapted in response to the pandemic.

The 2021 Educause Horizon Report (Educause 2021) also notes that the enduring legacy of the pandemic in terms of any permanent shift in teaching and learning provision is still to emerge. However, the report suggests that research will be needed in the following key technologies and practices:

- Artificial Intelligence
- Blended and hybrid course models
- Learning analytics
- Micro-credentialing
- Open Educational Resources
- Quality Online Learning

131

With respect to research methods, Wyse et al. (2021) observe that practitioner-researchers need to find opportunities for both experimental design and action research in educational research generally, reflecting Bozkurt et al.'s (2015) earlier suggestion that researchers should make use of a wider variety of research strategies from different fields of practice to explore distance education or open and distance learning provision. As evidence of this need, a study by Yavuz et al. (2021) on the trend in distance education research during the pandemic period suggested that most of the publications in the sample selected were single-author, quantitative, using a questionnaire, and analysed using a descriptive-quantitative method. Linking this to the finding by Madiope and Mendy (2021) above, it would also be of interest to see evidence of longitudinal cohort analyses to track student retention, success, and subsequent achievements (this can be a challenging but illuminating process, DHET 2017) and how such information has been used to improve practice.

From the above analysis, some possible areas for further research would seem to include but not be limited to distance education policy; adaptation (including cross-border provision); and a research agenda for distance education, distance education in schools, and distance education in relation to globalisation, networking, finance/economics, institutional values, best/good practices,

workload, staff roles, learning outcomes, and cohort/longitudinal studies.

Having identified these possible 'gaps', the author undertook a search for research publications since 2018 on the above issues using appropriate variations of the following search terms: 'distance education' OR 'open and distance learning' OR 'open, distance and e-learning' AND 'policy'. An attempt was made to find at least three recent research publications related to the issue to identify what had been researched and to explore where the research had been published. Selection was based on identifying the first three which directly addressed the topic.

Policy

In relation to policy, Makoe (2018) observes that while many African countries have identified the need to expand access to higher education through introducing distance education in traditional campus-based institutions, the intent does not always lead to the promulgation of policy, and even when policy is adopted, it is often not accompanied by a practicable implementation plan. Salmon and Asgari (2019) explore the fact that even when the agenda seems clear, transformation of policy and practice in higher education remains slow and they offer some strategies to encourage future-oriented thinking. In another recent publication, Pitsoane and Matjila (2021) observe that even if there is an intent, a supporting policy, and a plan in place, often these do not reflect the realities of context. Mwangi (2021) argues the need for policy development of ICT and ODeL specifically targeted towards encouraging more female participation in higher education.

132

Adaptation

While some scholars acknowledge the need for curricula to be more responsive (Aluko et al. 2022), and for staff to have access to continuous professional development experiences which equip them with the necessary skills to be so (Modise 2020), as well as access to and training in the use of a variety of technologies for different purposes and contexts (Njoki 2021), research related to adaptation seems to be largely limited to support for learners with disabilities (Zongozzi 2020) or the ways in which learning analytics could be used to 'personalise' a learning experience (Bart et al. 2019). The search did not find examples of research which reported on ways in which a programme of study, its contents, its technology choices, and/or its pedagogy had been adapted from the

outset and/or during implementation, in response to the wide diversity of learners who might be attracted to distance or online study, especially in provision which is offered across state or national boundaries. However, it has been speculated that such flexibility might not even be possible within a single course (Lee 2020).

Research agenda

As noted in the previous discussion, there have been several recent studies into what areas research is being undertaken and what gaps there seem to be in both the content and form of the studies which have been undertaken. But what research should be undertaken in respect of distance education going forward, especially given the changing context, is not clear and probably requires contextualised planning by dedicated researchers (Letseka 2020).

Schooling

Open schooling has proven to be a viable option to provide second-chance learning opportunities even in some very challenging contexts (Heimuli 2019). However, learners who have been conditioned to learn in a school-based classroom environment will require support to adapt to distance and/or online provision (Murangi 2021). Nonetheless, as in higher education provision, technology plays an increasingly important role in schooling provision, especially in providing opportunities for out-of-school youth (Adelakun 2018; Rajabalee 2020; Sparks and Harwin 2022).

Globalisation

Globalisation is mentioned in a lot of recent articles but usually as a factor that needs to be considered rather than being explored in any depth in practice. However, some researchers recognise that in distance education provision which crosses international boundaries it is necessary during the design process to plan access and support for diverse linguistic and cultural contexts (Mittelmeier et al. 2018; Steyn and Gunter 2021). Others argue that there is also a need to think about ways to integrate indigenous knowledge into the curriculum that is offered (Gumbo 2020). It has also been suggested that there is a need to promote a sense of global citizenship (Puplampu and Mugo 2020).

Networking

Several recent articles explore the use of social media to support networking between teachers and other professionals, between teachers and other teachers or between teachers and learners (Anumula et al. 2020; Chaka et al. 2020), and some researchers have used such experiences to try to generate frameworks for good practice (Vlachopoulos and Makri 2019). In an interesting editorial, Weller et al. (2020) observe how the pandemic has promoted greater awareness of distance education and the role of technology among a more diverse group of stakeholders with diverse motivations.

Finances/Economics

Provision of distance education requires a different funding model from campus-based provision and institutions need to develop an appropriate business model before launching distance courses or they might run into financial challenges (Nketekete and Mojafela 2021). It is suggested that in some contexts there might be a need for a trade-off between scope and scale of provision (Zhang and Worthington 2017). Also, researchers should be interested in the impact of distance provision in their evaluation studies (Kalita 2020).

134

Values

Makina (2018) argues that an institution's vision, mission, and goals should inform the theories and practices it espouses. It is also argued that a focus on quality of provision is needed if an institution is to achieve both excellence and equality (Lumanta and Garcia 2020). In this vein, distance education is often promoted to engage otherwise marginalised students, such as those with disabilities, but there is often a disjuncture between policy and practice which specific forms of research might help providers to address (Matjila and Van der Merwe 2021).

Good/best practice

Creating opportunities for distance education staff to learn from one another's practice may be one way in which institutions can improve provision (Haresnape et al. 2020). However, although there is some agreement on what issues need to be addressed to assure quality, indicators need to be sensitive to context (Anietor 2019). As noted elsewhere in this volume (see Aluko and Mays), part of the challenge to be addressed is the extent to which evaluation of current practice is used to improve future practice (Von Lindeiner-Stráský et al. 2020).

Workload

Distance education provision typically involves employment of a decentralised team of learner support staff, and rewards commensurate with workload as well as active monitoring and intervention are needed to enhance the quality of provision (Ofole 2020). Although an increasing number of institutions have started to introduce elements of distance provision, whether in response to a demand to enrol more students or because of challenges for campus-based provision such as the recent pandemic, this means that staff used to more traditional forms of provision need extra time and support to accommodate the new approaches (Saunders et al. 2019). In addition, sub-populations of the staff complement may experience different workload challenges (Akuamoah-Boateng 2020).

135

Staff roles

An initial search did not yield anything immediately usable. So here it was necessary for the author to identify recent examples with which he was already familiar. The recent pandemic saw a massive shift to using technology to support remote learning and as noted by Jordan (2020), support from carers, teachers, and communities was key. Makoe and Olcott (2021), however, point to evidence that university leadership was not adequately prepared for the shift while Mays and Aluko (2018) observe that in the move to distance education provision, the impact on students and teachers is often explored but not so often the impact on administrative support staff.

Learning outcomes

In a study from the Open University of Malaysia, Thah and Latif (2020) found that the interplay of teaching and learning materials, the e-learning tools, platforms used, and learning experiences all impact on learning outcomes, but a key factor across all demographics was the amount of time learners spent logged online. In similar vein, Khumalo (2018) argues that if an ODL institution wants to improve graduation rates, there must be constructive alignment between the underpinning pedagogy (teaching, assessment, and intended learning outcomes) and technology employed to mediate learning. While Gil-Jaurena et al. (2020) found that courses may be internally coherent there is still sometimes a mismatch between the intended learning outcomes and the assessment strategy used.

Cohort/longitudinal studies

Many distance education providers are concerned to reduce their stop-out and drop-out rates. A recent study in Canada suggests that future instructional design should be informed by socioeconomic risk factors identified in earlier iterations of course provision (Desjardins et al. 2021). In an earlier study involving predictive learning analytics (PLA), Herodotou et al. (2020) identify several factors which they consider critical for scaling use of PLA, while Greenland and Moore (2021) also explored factors affecting dropout by engaging in in-depth interviews with over 200 students who had dropped out.

Conclusion

Having explored thirteen distance education research issues which appeared to be gaps, it was interesting to note that of the 45 additional research publications which were identified through the follow-up search, only two appeared in journals included in the original review list, seventeen appeared in journals which had a traditionally strong interest in distance education and related issues but were not included in the original twenty, and 26 were published in journals and other publications which might not necessarily have been expected to include research related to distance education. This may imply that in response to a limited number of distance education dedicated journals, distance education researchers are finding alternative avenues to publish their research.

The discussion in this chapter began by noting that despite the growing use of distance education provision, especially in open and online forms, there seemed relatively few journals where distance education could be published.

The small-scale review of twenty current distance education aligned journals which started the chapter confirmed trends identified in earlier more robust studies into trends and gaps in distance education research.

However, as speculated, in the absence of distance education aligned avenues to publish, distance education researchers will find alternative platforms to share their research. The unfortunate thing is that other distance education practitioners might not then easily find and build upon their research.

References

Abdulrahman, E.A.L., Abdelrahim, F.I., Fathi, M.A., and Rafdan, H.A.A. 2020. Distance education as a response to pandemics: Coronavirus and Arab culture. *Technology in Society*, 63. <https://doi.org/10.1016/j.techsoc.2020.101317>

Adelakun, L.A. 2018. Trends in using social media as substitute for class interaction in open & distance learning (ODL) education in Nigeria. *International Journal of Pedagogy, Policy and ICT in Education*, 6(1): 33-42. Available at: <https://www.ajol.info/index.php/ijp/article/view/167563>

Akuamoah-Boateng, C. 2020. Balancing work, family and personal life: Perspectives of female staff at the College of Distance Education, University of Cape Coast, Ghana. *International Journal of Educational Administration and Policy Studies*, 12(1): 43-51.

Available at: <https://eric.ed.gov/?id=EJ1250162>

Aluko & Mays (in this volume)

Aluko, R., Krull, G., and Mhlanga, E. 2022. Shaping open, distance and e-learning in post school education and training: A call for a revised agenda. *Perspectives in Education*, 40(1), 1-17.

Available at: <https://doi.org/10.18820/2519593X/pie.v40.i1.1>

Amoozegar, A., Khodabandelou, R., and Ebrahim, N. E. 2018. Major trends in distance education research: A combination of bibliometric and thematic analysis. *International Journal of Information Research and Review*, 5(2): 5353-5359. Available at: <https://doi.org/10.6084/m9.figshare.6210536.v1>

Anderson, T. and Rivera-Vargas, P. 2020. A critical look at educational technology from a distance education perspective. *Digital Education Review*, 37: 208-229.

Anietor, G.O. 2019. Approaches to promoting the quality of open and distance learning (ODL) in

resource poor nations. *International Journal of Educational Research*, 6(1): 127-133.

Anumula, V.K.R., Abdul-Al, C.F., Wang, W., Kovacs, P., and Powell, L. M. 2020. Social networking for a learning management system – should Facebook be used to supplement Blackboard? *Issues in Information Systems*, 21(1): 131-140. Available at: https://iacis.org/iis/2020/1_iis_2020_131-140.pdf

Babbie, E. 2016. *The practice of social research*. 14th ed. Cengage Learning. Boston, MA

Babbie, E. 2017. *The basics of social research*. 7th ed. Cengage Learning. Boston, MA

Bart, R., Olney, T., Nichols, M., and Herodotou, C. 2020. Effective usage of learning analytics: what do practitioners want and where should distance learning institutions be going? *Open Learning: The Journal of Open, Distance and e-Learning*, 35(2): 178-195. Available at: <https://doi.org/10.1080/02680513.2019.1690441>

Bates, A.W. 2021. Revising ‘Teaching in a Digital Age’: the impact of Covid-19 [Blog post]. Available at: <https://www.tonybates.ca/2021/12/16/revising-teaching-in-a-digital-age-the-impact-of-covid-19/>

Bozkurt, A. 2019. From distance education to open and distance learning: A holistic evaluation of history, definitions, and theories. In: *Handbook of Research on Learning in the Age of Transhumanism*, edited by S. Sisman-Ugur and G. Kurubacak. pp. 252-227. IGI Global. Available at: <https://www.igi-global.com/chapter/from-distance-education-to-open-and-distance-learning/227916>

Bozkurt, A., Akgun-Ozbek, E., Yilmazel, S., Erdogdu, E., Ucar, H., Guler, E., Sezgin, S., Karadeniz, A., Sen-Ersoy, N., Goksel-Canbek, N., Dincer, G., Suleyman, A. and Aydin, C.H. (2015). Trends in Distance Education Research: A Content Analysis of Journals 2009-2013. *International Review of Research in Open and Distance Learning*, 16: 330-363. Available at: DOI:10.19173/irrodl.v16i1.1953

Bozkurt, A. and Zawacki-Richter, O. 2021. Trends and patterns in distance education (2014-2019): A synthesis of scholarly publications and a vizualisation of the intellectual landscape. *International Review of Research in Open and Distributed Learning*, 22(2): 19-45. Available at: <https://doi.org/10.19173/irrodl.v22i2.5381>

Chaka, C., Nkhobo, T., and Lephala, M. 2020. Leveraging MoyaMA, WhatsApp and online discussion forum to support students at an open and distance e-learning university. *The Electronic Journal of e-Learning*, 18(6): 494-515. Available at: <https://doi.org/10.34190/JEL.18.6.003>

Cleveland-Innes, M.F. and Garrison, D.R. 2020. *An introduction to distance education: Understanding teaching and learning in a new era*. 2nd ed. Routledge.

- Commonwealth of Learning (COL). (2020). *Guidelines on distance education during COVID-19*. Available at: https://www.dhet.gov.za/SiteAssets/Guidelines%20on%20DE_COVID%2019.pdf
- Cukurbasi, B., Fidan, M., d Debbag, M. 2021. Research and trends for educators, staff and administrators in distance education: content analysis of distance education journals (2008-2018). *Asian Journal of Distance Education*, 16(2): 144-165. Available at: <https://doi.org/10.5281/zenodo.5785527>
- Department of Higher Education and Training (DHET). 2017. *2000 to 2014 First time entering undergraduate cohort studies for public higher education institutions*. Available at: http://www.usaf.ac.za/wp-content/uploads/2017/10/DHET_2000-TO-2014-First-Time-Entering-Undergraduate-Cohort-Studies-for-Public-HEIs-final.pdf
- Desjardins, G., Papi, C., Géin-Lajole, S., and Sauvé, L. 2021. Two-stage cluster analysis in distance learning: A way to reduce gaps in the scientific literature on open and distance education. *Portuguese Journal of Behavioral and Social Research*, 7(2): 77-88. <https://repositorio.ismt.pt/bitstream/123456789/1380/1/230-Texto%20Artigo-2143-1-10-20211130.pdf>
- Educause. 2021. *2021 Educause horizon report: Teaching and learning edition*. <https://library.educause.edu/resources/2021/4/2021-educause-horizon-report-teaching-and-learning-edition>
- Garrison, D. R., Anderson, T., and Archer, W. 2000. Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2): 87-105.
- Gil-Jaurena, I., Domínguez-Figaredo, D., and Ballesteros-Velázquez, B. 2020. Learning outcomes based assessment in distance higher education: A case study. *Open Learning: The Journal of Open, Distance and e-Learning*, 37(2). Available at: <https://doi.org/10.1080/02680513.2020.1757419>
- Greenland, S. J. and Moore, C. (2021). Large qualitative sample and thematic analysis to redefine student dropout and retention strategy in open online education. *British Journal of Educational Technology*, 53(3): 647-667. Available at: <https://doi.org/10.1111/bjet.13173>
- Gumbo, M. 2020. Indigenising technological pedagogical content knowledge in open distance learning. *Africa Education Review*, 17(4). Available at: <https://hdl.handle.net/10520/ejc-educare-v17-n4-a6>
- Haresnape, J.M., Aiken, F.J., and Wynn, N.C. 2020. Sharing good practice and encouraging community cohesion online: a programme of tutor-led online events for Open University tutors. *Open Learning: The Journal of Open, Distance and e-Learning*, 37:1: 30-52. Available at: <https://doi.org/10.1080/02680513.2020.1752165>

- Heimuli, P. 2020. Examining the potential of open schooling to support second-chance education in Tonga. In: *It takes an Island and an Ocean*, edited by S. Johansson-Fua, M. Otunuku, and R. Toumu'a. Institute of Education (IOE), The University of the South Pacific, Tonga. pp. 184-195. <https://repository.usp.ac.fj/12291/>
- Herodotou, C., Rienties, B., Hlosta, M., Boroowa, A., Mangafa, C., and Zdrahal, Z. 2020. The scalable implementation of predictive learning analytics at a distance learning university: Insights from a longitudinal case study. *The Internet and Higher Education*, 45. Available at: <https://doi.org/10.1016/j.iheduc.2020.100725>
- Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., and Bond, M. A. 2020. *The difference between emergency remote teaching and online learning*. Scholarly Works, School of Education, Virginia Tech. Available at: <https://vtechworks.lib.vt.edu/handle/10919/104648>
- Hookway, C. 2016. *Pragmatism*. Stanford Encyclopedia of Philosophy Archive, Summer 2016 Edition. Available at: <https://plato.stanford.edu/archives/sum2016/entries/pragmatism/>
- Jordan, K. 2020. Covid-19 school closures in low- and middle-income countries: Emergent perspectives on the role of educational technology. *Journal of Learning for Development*, 7(3): 399-415. Available at: <https://jl4d.org/index.php/ejl4d/article/view/433>
- Kalita, U. 2020. A multivariate econometric perspective on distance learning and livelihood status in India. *Knowledge and Learning*, 13(4): 287-298. Available at: <https://www.inderscienceonline.com/doi/abs/10.1504/IJKL.2020.111135>
- Kanwar, A. & Daniel, J. 2020. Report to Commonwealth Education Ministers: From response to Resilience. Available at: <http://oasis.col.org/handle/11599/3592>
- Khumalo, S.S. 2018. Improving student success rate in open distance learning settings through the principle of constructive alignment. In: *Trends in E-learning*, edited by M. Sinecen. pp 31-41. Available at: DOI:10.5772/intechopen.75637
- Lee, K. 2021. Openness and innovation in online higher education: A historical review of the two discourses. *Open Learning: The Journal of Open, Distance and e-Learning*, 36(2): 112-132. Available at: <https://doi.org/10.1080/02680513.2020.1713737>
- Letseka, M. (2020). Stimulating ODL research at UNISA: exploring the role and potential impact of the UNESCO ODL chair. *Open Learning: The Journal of Open, Distance and e-Learning*, 36(2): 13-148. Available at: <https://doi.org/10.1080/02680513.2020.1724780>
- Lumanta, M.F. & Garcia, P.G. 2020. *Quality initiatives in an open and distance e-learning institution: Towards excellent and equity*. University of the Philippines: Los Banos.
- Madiopé, M. and Mendy, J. 2021. Analysis of current trends in distance education during COVID-19: A South Africa higher education context. *The Online Journal of Distance Education*

- and e-Learning*, 9(1): 1–7. Available at: <https://www.tojdel.net/journals/tojdel/articles/v09i01/v09i01-01.pdf>
- Makina, A. 2018. University of South Africa: Change management and leadership for open and distance learning. *Muma Case Review*, 3(26): 1–11. Available at: <https://doi.org/10.28945/4228>
- Makoe, M. 2018. Avoiding to fit a square peg into a round hole: A policy framework for operationalising open distance education in dual-mode universities. *Distance Education*, 39(2): 159–175. Available at: <https://www.tandfonline.com/doi/full/10.1080/01587919.2018.1457945>
- Makoe, M. and Olcott, D. 2021. Leadership for development: Re-shaping higher education futures and sustainability in Africa. *Journal of Learning for Development*, 8(3): 487–500. Available at: <https://jl4d.org/index.php/ejl4d/article/view/569>
- Matjila, T. and Van der Merwe, P. 2021. *Transformative research paradigm: A response to SDG4 by intensifying support scholarships for deaf and hard of hearing students at an open distance and e-learning university*. Available at: <https://www.scienceopen.com/hosted-document?doi=10.25159/UnisaRxiv/000010.v1>
- Mays, T. 2020. Policy and open schooling. In: *Addressing the learning leeds of out of school children and youths through expansion of open schooling*, edited by T. Mays and R.K. Singh. Commonwealth of Learning. pp153–194. Available at: <https://oasis.col.org/server/api/core/bitstreams/711427be-819e-4flf-bb22-0956131df0e7/content>
- Mays, T.J. and Aluko, F.R. 2019. Agile administrative choreographies for multimode education at the University of Pretoria. *Distance Education*, 40(1): 5–19. Available at: <https://doi.org/10.1080/01587919.2018.1553563>
- Mishra, S. and Panda, S. 2020. Technology-enabled learning: Policy, pedagogy, and practice. The Commonwealth of Learning. Available at: <http://oasis.col.org/handle/11599/3655>
- Mishra, S. 2019. Early years of the journal of learning for development: A combination of bibliometrics and thematic analysis. *Journal of Learning for Development*, 6(2). <https://jl4d.org/index.php/ejl4d/article/view/331>
- Mishra, S., Sahoo, S., and Pandey, S. 2021. Research trends in online distance learning during the COVID-19 pandemic. *Distance Education*, 42(4): 494–519. Available at: <https://doi.org/10.1080/01587919.2021.1986373>
- Mittelmeier, J., Long, D., Cin, F. M., Reedy, K. Gunter, A., Raghuram, P., and Rienties. B. 2018. Learning design in diverse institutional and cultural contexts: suggestions from a participatory workshop with higher education professionals in Africa. *Open Learning: The Journal of Open*,

Does Distance Education in the Developing Context Need More Research? Building Practice into Theory

Distance and e-Learning, 33(3): 250–266. Available at: <https://doi.org/10.1080/02680513.2018.1486185>

Modise, M.P. 2020. Continuous professional development and student support in an open and distance e-learning institution: A case study. *International Journal of African Higher Education*, 7(1). Available at: <https://doi.org/10.6017/ijahe.v7i1.10902>

Mohammed, A.O., Khidhir, B. A., Nazeer, A., and Vijayan, V. J. 2020. Emergency remote teaching during Coronavirus pandemic: The current trend and future directive at Middle East College Oman. *Innovative Infrastructure Solutions*, 5(72). Available at: <https://doi.org/10.1007/s41062-020-00326-7>

Moore, M. 1997. Theory of transactional distance. In: *Theoretical principles of distance education*, edited by D. Keegan. Routledge. pp. 22–38.

Murangi, H.V. 2021. Factors affecting student transition from conventional schools to an open schooling system in Namibia. In: *The education systems of Africa*, edited by K.S. Adeyemo. Springer. pp. 243–263. Available at: https://doi.org/10.1007/978-3-030-44217-0_13

Mwangi, A. 2021. The advantage of adoption of open distance and e-learning to increase access to female higher education. *Journal of Online and Distance Learning*, 1(1): 1–13. Available at: <https://doi.org/10.47941/jodl.634>

Naidu, S. 2021. Useful lines of enquiry – what is worth investigating and how? *Distance Education*, 42(4): 461–464. Available at: <https://doi.org/10.1080/01587919.2021.1987836>

Njoki, H. 2021. Influence of technology type on development of instructional materials for distance education. *Journal of Online and Distance Learning*, 1(1): 60–74. Available at: <https://doi.org/10.47941/jodl.638>

Nketekete, M. and Mojafela, M.L. 2021. Exploring open and distance learning reform at the national University of Lesotho: A managerial perspective. *International Review of Research in Open and Distributed Learning*, 22(4): 41–52. Available at: <https://doi.org/10.19173/irrodl.v22i4.6283>

Ofole, N.M. 2022. Social loafing among learner support staff for open and distance education programmes in south-western Nigeria: The imperative for counselling intervention. *Open Learning: The Journal of Open, Distance and e-Learning*, 37(1): 84–101. Available at: <https://doi.org/10.1080/02680513.2020.1736020>

Panda, S. 2020. Covid-19 pandemic and innovations in institutional transformation, technology and pedagogy. *Journal of Learning for Development*, 7(3): 264–270. <https://jld.org/index.php/ejld/article/view/478>

Pike, A. (2020). From prisoner to student. Degrees of freedom: Prison education at the Open University. In: *Degrees of freedom: Prison education at the Open University*, edited by R. Earle and J. Mehigan. Bristol University Press. pp 11–30.

Available at: <https://doi.org/10.2307/j.ctvt6rk4f.6>

Pitsoane, E.M. and Matjila, T.N. 2021. Experiences of students with visual impairments at an open distance and e-learning university in South Africa: counselling perspective. *Journal of Student Affairs in Africa*, 9(2): 123–138. Available at: <https://doi.org/10.24085/jsaa.v9i2.2197>

Pregowska, A., Masztalerz, K., Garlińska, M., and Osial, M. 2021. A worldwide journey through distance education – from the post office to virtual, augmented, and mixed realities, and education during the COVID-19 pandemic. *Education Sciences*, 11(3). Available at: <https://doi.org/10.3390/educsci11030118>

Puplampu K.P., and Mugo S.M. 2020. Disruptive technology and knowledge development: African universities, human capital and educating for global citizenship. In: *Disruptive technologies, innovation, and development in Africa. International Political Economy Series*, edited by Hanson A.P. and Puplampu K. Palgrave Macmillan. pp. 147–169. Available at: https://doi.org/10.1007/978-3-030-40647-9_7

Rajabalee, Y.B., Dundas, D., and Singh, C.K. 2020 TEL and open schooling In: *Addressing the learning needs of out-of-school children and youths through expansion of open schooling*, edited by T. Mays and R. K. Singh. Commonwealth of Learning. pp. 68–83. Available at: <http://oasis.col.org/handle/11599/3731>

Salmon, G., and Askari, T. 2019. Higher education – the last bastion? Distance and e-learning policy and development – the role of e-learning and distance education in the modernisation process of economies, societies, and education systems. *European Journal of Open, Distance and E-Learning*. Available at: <https://old.eurodl.org/?p=archives&sp=brief&year=2019&halfyear=1&article=792>

Saunders, F.C., Brooks, J., and Dawson, M. 2020. Exploring staff attitudes to distance learning – what are the opportunities, challenges and impacts on engineering academics and instructional designers. *European Journal of Engineering Education*, 45(5): 675–690. Available at: <https://doi.org/10.1080/03043797.2019.1677562>

Saykih, A. (2018). Distance education: Definitions, generations, key concepts and future directions. *International Journal of Contemporary Educational Research*, 5(1): 2–17. Available at: <http://ijcer.net/en/download/article-file/498240>

Seaman, J.E., Allen, I., and Seaman, J. 2018. *Grade increase. Tracking distance education in*

the United States. Pearson: Online Learning Consortium (OLC) Available at: <https://eric.ed.gov/?id=ED580852>

Sewart, D., Keegan, D., and Holmberg, B. 2020. *Distance education: International perspectives*. Routledge, eBook version of 1988 publication. Available at: <https://doi.org/10.4324/9781003033950>

Simonson, M., Zvacek, S., and Smaldino, S. 2019. *Teaching and learning at a distance: Foundations of distance education*. 7th ed. Information Age Publishing. Available at: <https://www.infoagepub.com/products/Teaching-and-Learning-at-a-Distance-7th-edition>

Sparks, S.D. and Harwin, A. 2022. The teaching strategies educators say will outlast the pandemic. *Education Week*, March 22. Available at: <https://www.edweek.org/leadership/the-teaching-strategies-educators-say-will-outlast-the-pandemic/2022/03>

Srivastava, M., Mishra, B., Rao, D.K., Abrol, N., Varma, V., and Bhushan, B. 2020. Recent trends of research in open and distance education in India. *Asian Association of Open Universities Journal*, 15(2): 263–283. Available at: <https://doi.org/10.1108/AAOUJ-06-2020-0044>

Steyn, C. and Gunter, A. 2021. When an international student stays at home: Defining an international student in distance education. *Journal of Geography in Higher Education*, 47(1): 56–70. Available at: DOI: 10.1080/03098265.2021.1991289

Thah, S.S. and Latif, L.A. 2020. Learning outcomes in distance learning: A study of learners' experience. In: *Innovating education in technology-supported environments*, edited by K.C.Li., E.Y.M. Tsang, and B.T.M Wong. Education Innovation Series. Singapore: Springer. Pp. 21–35. Available at: https://doi.org/10.1007/978-981-15-6591-5_2

Van den Berg, G. In this volume.

Vlachopoulos, D. and Makri, A. 2019. Online communication and interaction in distance higher education: A framework study of good practice. *International Review of Education* 65: 605–632. <https://doi.org/10.1007/s11159-019-09792-3>

Von Lindeiner-Stráský, K., Ursula Stickler, U, and Winchester, S. 2020. Flipping the flipped. The concept of flipped learning in an online teaching environment. *Open Learning: The Journal of Open, Distance and e-Learning*, 37(3). Available at: <https://doi.org/10.1080/02680513.2020.1769584>

Weidlich, J. and Bastiaens, T. J. 2018. Technology matters – the impact of transactional distance on satisfaction in online distance learning. *International Review of Research in Open and Distributed Learning*, 19(3). Available at: DOI:10.19173/irrodl.v19i3.3417

- Weller, M., Jordan, K., DeVries, I., and Rolfe, V. 2018. Mapping the open education landscape: Citation network analysis of historical open and distance education research. *Open Praxis*, 10(2): 109–126. Available at: <https://doi.org/10.1080/17439884.2020.1761641>
- Williamson, B., Eynon, R., and Potter, J. 2020. Pandemic politics, pedagogies, and practices: Digital technologies and distance education during the coronavirus emergency. *Learning, Media and Technology*, 45(2): 107–114.
- Wyse, D., Brown, C., Oliver, S., and Pobleté, X. 2021. People and practice: Defining education as an academic discipline. *British Educational Research Journal*, 47(6): 1512–1521.
- Xiao, J. 2018. On the margins or at the centre? Distance education in higher education. *Distance Education*, 39(2): 259–274.
- Yavuz, M., Kayalı, B., and Tural, Ö. 2021. Trend of distance education research in the Covid-19 period: A bibliometric and content analysis. *Journal of Educational Technology & Online Learning*, 4(2): 256–279. Available at: DOI:10.31681/jetol.922682.
- Zawacki-Richter, O., Bäcker, E. M., and Vogt, S. 2009. Review of distance education research (2000 to 2008): Analysis of research areas, methods, and authorship patterns. *International Review of Research in Open & Distance Learning*, 10(6): 21–50. Available at: <https://doi.org/10.19173/irrodl.v10i6.741>
- Zhang, L-C. and Worthington, A. C. (2017). Scale and scope economies of distance education in Australian universities. *Studies in Higher Education*, 42(9): 1785–1799. Available at: <https://doi.org/10.1080/03075079.2015.1126817>
- Zongozi, J. N. 2020. Accessible quality higher education for students with disabilities in a South African open distance and e-learning institution: Challenges. *International Journal of Disability, Development and Education*, 69(5): 1645–1657. Available at: <https://doi.org/10.1080/1034912X.2020.1822518>
-