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Curriculum and learning designers' epistemological views of learning and how they inform design work in universities

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Abstract

Universities globally have been increasingly looking to bring in professionals with expertise in learning and curriculum design to help with educational innovation. The aim of this study was to explore the epistemological views of learning that people in curriculum and learning design roles use to inform their practice. In this study, ten learning and curriculum designers were interviewed in depth. The participants demonstrated wide and deep knowledge of learning and teaching, drawing on both established notions of constructivism but also on emerging theories and evidence. Combined with extensive experience, the interviews revealed that these learning designers demonstrate high levels of epistemic fluency, adapting and using processes and practices in a dynamic way as task requirements demand. The findings make a contribution to the limited understanding of the knowledge base that curriculum learning designers draw on to carry out their work. The implications of these findings for universities are also discussed.

Practitioner Notes

1. Learning designers are increasingly important within universities.
2. To date, there is not much known about how this group thinks about learning and how that epistemic foundation influences their practice.
3. Through interviews with ten learning/curriculum designers, a deep and dynamic foundation of ideas seems to underpin their practice.
4. Learning designers could use more opportunities for professional development and structures for creating effective partnerships would help them be more effective in their work.

Keywords

learning designers; design for learning; evidence-informed practice; epistemic fluency

Introduction

Higher education is experiencing a period of rapid and unprecedented change, one accelerated by the COVID-19 pandemic (Tesar, 2020). The combined impact of social distancing requirements, new technologies, increased capacity for networking, widening participation and changes in economic circumstances and workforce trends have transformed higher education in fundamental ways not seen in the centuries of established universities. Within this broader context, these trends have led to a paradigmatic shift in the distribution of work within universities (see Veles et al., 2019). Much of the work that has traditionally been the sole domain of academics has become increasingly specialised. For example, increased use of blended and online learning in higher education has led to a need for specialised skill and knowledge in design for learning (Goodyear & Dimitriadis, 2013). Academic staff are generally not qualified or experienced in these domains. As a result, there has been a trend towards bringing in expertise in design for learning and in other areas to assist with the demands of digitally-mediated teaching. This has led to a growth in 'third space' professionals (c.f. Whitchurch, 2008). Third space staff are defined as professional staff with high-level expertise occupying a space in between the academic and professional staff roles. They carry out work in areas that were traditionally once seen as elements of academic roles but are not technically classed as academic staff (Veles et al., 2019). In this way, these roles differ from those described as 'academic developers', who have been in academic roles, albeit unorthodox ones (Bath & Smith, 2004).

Despite the increase in demand for third space professionals, such as learning designers and learning development staff, within institutions, little is known about how these individuals go about their work (Gravett & Winstone, 2019). A diverse range of people with different qualifications and experience are now undertaking work in the third space. As yet, this diversity has not been captured or described in any great detail. Instead, many reports focus on a comprehensive account of specific case study (e.g., Davey et al., 2019). The study reported here is an attempt to rectify this gap in understanding. The exploratory qualitative study reported here was aimed at shedding light on the realities of learning designers' work in contemporary higher education. A particular emphasis in this project, as opposed to previous research by Whitchurch (2015) in particular, which focussed more on issues of identity, was to explore the epistemic foundations of the practice of learning designers. This focus was adopted in order to develop a fuller sense of the theoretical and practical knowledge learning designers draw on to inform how they go about their work. Teacher beliefs have been found to be particularly critical in the success of higher education innovation (Errington, 2004) but the beliefs and foundational knowledge of learning designers remain underexplored. The study reported here aimed to contribute to the limited understanding of this growing group of professionals working in universities. Specifically, I aimed to explore what the epistemic basis of their professional expertise is and how that is deployed in their day-to-day work.

Exploring the epistemic foundations of third space practice

One of the issues that inevitably flows from having a new group of professionals engaged in the mission of higher education is how they fit within and contribute to the institution and to the sector (Veles et al., 2019). Little is known about the types of knowledge third space professionals like learning designers draw on to engage in their practice and how that fits with the dominant ways of knowing in higher education learning and teaching. The changing nature of higher education means that more sophisticated forms of knowledge are required to carry out the complex design work needed to respond to the emerging trends and pressures. This work necessitates deep understanding of contexts and issues and an ability to be across and to switch between different ways of knowing and different knowledge domains. Markauskaite and Goodyear (2017) describe this capacity as 'epistemic fluency'. As argued by Elliott and Lodge (2017), learning designers are particularly needed to assist with bringing in greater knowledge in both pedagogy, technology, and, perhaps more importantly, the interaction between these domains, hence they need high-level capacity in epistemic fluency. Learning designers are therefore pivotal in providing the knowledge skills and ability to take expertise in content and design effective learning activities on the basis of established pedagogical approaches using technology. However, while there is some sense that institutions are looking for learning designers and other third space professionals to contribute this expertise, there is a dearth of evidence about what epistemic foundations people in those roles actually draw on in order to go about their practice. It is critical for policy and management that a better understanding of this growing group is developed. In particular, it is important to know how this emerging group professional staff think about learning and teaching and use this knowledge to design curriculum, assessment tasks and learning activities.

Learning designers provide an important but poorly understood example of the unbundling of the

academic role. By both title and by the nature of their work, learning designers are employed to carry out aspects of the design of the curriculum that have been problematic for academics not sufficiently training nor qualified in design (e.g. Elliot & Lodge, 2017). On the surface, this should be a relatively simple process where the design aspects of the curriculum development are delegated to learning designers who have the expertise to carry out the design thinking and work. In reality, the collaboration between content matter experts and learning designers is difficult, complex and potentially mired in conflict (Salmon & Angood, 2013). Each group brings a particular epistemic framing to the task at hand that, in the same way as it is difficult for an academic to learn to be a designer, it can be difficult to equate the design for learning with the knowledge domain and the traditional elements of scholarly practice.

The difficulties in asking learning designers and other teaching support staff in the third space to work with academics manifest in many ways. The foundational knowledge domains from which each enact and embody their practice differ in fundamental ways. Higher education is traditionally a critical and scholarly enterprise that involves education for the public good and the production of new knowledge (e.g. Barnett, 1999). Learning design, on the other hand, has been situated in a vocational and competency-based domain (van Merriënboer & Kirschner, 2012). One area of divergent ontologies that is of particular interest and that has not received much coverage in the literature to date is the assumptions each of these groups has about what learning is and how it comes about. Given so much of the actual practice and design for learning will be driven by the assumptions made about what learning is, there is value in exploring the epistemic foundations of learning further.

The current study

The aim of the current study was to explore the epistemic basis for practice in third space professionals working closely on issues related to design for learning and curriculum design. The knowledge basis of interest was particularly in these areas and around how learning and curriculum designers in these roles think about learning and draw on that understanding when they go about their day-to-day practice. Developing a fuller understanding of these issues has both theoretical and practical significance. Firstly, this increased understanding will help to identify the ways of thinking that are most important for hiring in new people to fill these roles. In a theoretical sense, this study also contributes to the understanding of the increasingly complex mix of professional and academic identities within institutions in the COVID-19 era. Therefore, the study aimed to make both a theoretical and practical contribution to the existing literature.

There were two main research questions that led to the development of the project reported in this paper, they are:

1. What are the epistemic foundations of design for learning work in third space professionals focused on design for learning?

2. How does this knowledge impact on the day-to-day practices of learning designers?

The current study is exploratory in nature. The aim of the study was to understand the nature of learning designer's knowledge and how it influences their work. The point of the study was not to explore the academic background and qualifications of these professionals or to draw comparisons with academics or academic developers. As such, a semi-structured interview protocol was adopted with a series of questions focussed on what participants think about learning and how that epistemic foundation informs their work.

Methods

Given the exploratory nature of the research project, a qualitative methodology was adopted for this study. Semi-structured interviews were conducted with volunteers in learning and curriculum design roles across universities in Australia. The interview transcripts were analysed using the qualitative analysis approach described by Spencer et al. (2014). This approach was deemed most suitable for answering the research questions posed as it provides a structured methodology for exploratory investigation of complex issues with policy implications such as those that are of interest in this study.

Participants

Ten participants were recruited to be interviewed for this study. Overarching details about each of the

participants are included in table 1.

Table 1

Participant details

Name[1]	Institution type	Role	Organisational unit/ type
Phil	Research intensive	Manager, Learning Design	Central educational Innovation Unit
Leanne	Metropolitan	Curriculum Consultant	Faculty support unit
Natalia	Research intensive	Coordinator: Professional Development	Central educational Innovation Unit
Erin	Research intensive	Manager, e-learning Unit	Faculty support unit
Max	Research intensive	Learning Design Coordinator	Central educational technology unit
Boris	Technology-focussed	Manager, Innovation	Central teaching and learning unit
Cara	Research intensive	Learning Designer	Major initiative – central project
Eddie	Research intensive	Manager, Learning Design	Major initiative – central project
Jessica	Research intensive	Senior Learning Designer	Central educational technology unit
Selina	Technology-focussed	Manager, Learning Design	Faculty support unit

[1]Pseudonyms have been used

The participants were recruited via a convenience sampling method. Each was sent an invitation to participate via email. The ten participants were drawn from a range of universities across Australia. Participants with experience were preferred and the final sample included third space professionals in learning or curriculum design roles with five or more years of experience. As can be seen in table 1, there was a range of participants interviewed in different roles across a range of institution types. The exploratory nature of the research necessitated some diversity in the sample. It was deemed that there should be sufficient saturation in themes across these ten participants based on the recommendations provided by Ando et al. (2014).

Materials

The interviews were conducted based on a semi-structured interview schedule. The questions and sequence of questions were based on those used in a similar study investigating the epistemic beliefs of teachers (Chai, 2010). Questions fell into four major sections. The first asked high-level questions about learning and the learning process. The second block of questions was aimed at unpacking how these notions of learning impacted on the way in which the participants carry out design work. These questions were foregrounded by asking participants to consider a specific example of an artefact they had been involved in designing. The third block of questions switched back to higher level issues around the sorts of evidence the participants deemed as appropriate for informing policy and practice. Finally, participants were asked details about their roles, the day-to-day aspects of it and given an opportunity to describe how they see their knowledge about learning, teaching and design influencing their work.

Procedure and analysis

Approval for the conduct of this research was obtained from The University of Sydney Human Research Ethics Committee. Invitations were sent to participants via an email invitation explaining the aims of the study and giving participants an overview of the requirements of participation. The researcher conducted

all interviews face-to-face. Interviews lasted from 23 minutes to 65 minutes with the average interview time being 38 minutes. Digital recordings were transcribed using an online service, *Rev.com*. Transcripts were then checked for accuracy and prepared for analysis.

Analysis of the transcript data was conducted in accordance with the qualitative data analysis process outlined by Spencer et al. (2014). This process is a structured multi-stage analysis framework for exploratory data such as that collected in this study. Each of these stages is described below:

***Familiarisation**:* The familiarisation phase involves going over the transcripts in some detail and recording the main ideas down. There was a great diversity of ideas discussed across all the interviews. These ideas were then used in the second phase of the analysis.

***Identifying a thematic framework**:* In the second phase of the analysis, key themes and ideas were distilled from the transcripts based on the ideas recorded in the familiarisation stage. This allowed for the development of a framework to guide the remainder of the analysis.

***Indexing**:* Using the seven categories determined through the identification of the thematic framework, an index was created of the main ideas raised in the interviews. This index was then used to code the transcripts. According to Spencer et al. (2014), this coding process allows for seeing how different topics raised during the interviews are interwoven throughout the transcripts. At this stage, a second coder was consulted to verify the reliability of the coding scheme and cross-code a sample of the data. The coding framework was adapted by negotiation between the two coders.

***Mapping and interpretation**:* The final stage of the analysis process involved mapping and interpretation of the coded data. Again, following the process outlined by Spencer et al. (2014), this process involved several stages. These stages include, defining concepts, mapping the nature and range of phenomena, finding associations, providing explanations and finally, developing strategies. This process provides the structure for the reporting of the results.

Results and discussion

In this results and discussion section, the major themes that came out of the analysis conducted as described in the methods section will be presented and considered. The results will focus on the development and consequential findings of the thematic framework, particularly in relation to the mapping and interpretation of the results.

Thematic framework

The result of the familiarisation and development of the thematic framework yielded seven high level categories of themes that emerged through the interviews. These themes partly aligned with the four blocks of questions asked to participants, but not completely. The first themes emerged around different learning theories and epistemic foundations underpinning practice. Given that delving into these foundations was an explicit aim of the questions, this theme was to be expected. The second theme to emerge centred on more mundane concerns. The second theme related to high-level practicalities of work in learning and teaching in universities and about how those practical concerns play out on a day-to-day basis. Following on from that, the third theme to emerge was in relation to the types of strategies the participants use to manage the complexities of their work. The fourth theme was unsurprisingly related to the evidence underpinning practice. Again, this is likely due to the direct line of questioning on this issue. The fifth and sixth themes aligned with questions aimed at asking participants to discuss their role and its place within the university. The fifth picked up on issues related to the organisation and the sixth about the participants' perceptions of their role within it. Lastly, several bigger picture issues arose about the current state of higher education. These were assigned a separate theme. These themes will all be described in some detail in the mapping and interpretation below.

Concepts

***Learning**:* Participants described a range of different conceptions of learning, however, there was a dominant view that learning in higher education is best viewed as a constructivist or social-constructivist activity. This was best encapsulated by Phil, who said:

> *[I] still keep coming back to social constructivism. I think that implication that you don't really know something until you can explain it to someone else, and that process of … I think*

> *it's implied by social constructivism of making sense of something enough that you can communicate it to another person, is a critical part of learning that too many people forget.*

Despite the dominance of this theoretical foundation, there were some other theories evident in the interviews, these included mentions of behaviourist and cognitivist learning theories and of more recent theories such as Siemens' (2005) connectivism theory. For example, Max said:

> *I think at the moment I'm really keen on obviously social constructivism's been around for a while, and is still one of the dominant theories, but I really like connectivism because it talks about the network and it's recognising the world we're living in.*

What this suggests is that the learning and curriculum designers who participated in this study gravitate towards particular conceptions of learning but still reflect some diversity across the range of conceptualisations tending towards more socially oriented theories that have emerged as a result of networking capacity (such as connectivism).

Curriculum*:* With most participants leaning towards constructivist notions of learning, it would be expected that they would perhaps also lean towards high-level notions of curriculum design with constructivism as a basis. Many of the participants mentioned Biggs' (2003) constructive alignment framework as the way in which they conceptualise curriculum at a high level. For example, Selina stated, "I'm a great fan of backward design, so I like to do constructive alignment, and then try and work out how we're going to get from A to B."

It would appear then that the learning and curriculum designers interviewed for this project have high level views of curriculum that are aligned with those that are the dominant ways of thinking about curriculum in the higher education sector. This is perhaps to be expected given the ubiquity of constructive alignment as a model for curriculum development in the higher education context. It is perhaps surprising though that individuals who have been brought into universities to provide fresh perspectives on design for learning have perhaps conformed to the dominant thinking of the context. It is not clear whether the prior experiences of the participants have led them to use constructive alignment as a key model for curriculum design or whether this is something they have adopted since moving into the sector and into their current role.

Evidence*:* Interestingly, despite the tendency to lean towards the established theories of learning and associated framework for curriculum design, there was an emerging theme concerning different conceptualisations of learning. Boris suggests that:

> *Particularly as we're moving into that neuroscience and people are starting to say "well, hold on a minute!" You know? Multimedia learning, for example. Mayer's is really being challenged with the dual, you know, dual channel assumption sort of theory, so it's really interesting times now because we're really getting into the nuts and bolts and I think so for me, I'm conscious of that and I'm like "nah, I'm not a constructivist.*

So, it therefore seems that, despite holding onto the dominant conceptions of learning and curriculum, there was some sense that participants had a broader view of evidence than a reliance on constructivist notions of learning in some cases.

Third space professional*:* Participants were not asked directly what their conceptualisation of a 'third space professional' is. Instead, the line of questioning in the interviews was aimed at getting participants to describe the day-to-day reality of their roles including the ways in which they go about design work and what are the elements of the role that do and do not seem to work. Based on this, it is possible to glean a conceptualisation of what a third space professional is in practice. Again, there were a range of responses to these questions. Many of the participants see themselves as consultants or brokers. Erin referred to herself as a 'hybrid' member of staff. Moreover, Jessica explained the role in the following way: "My role is a teaching and learning consultant, so my focus is not the technology, it's about teaching and learning." However, as Eddie suggests, there is also some trepidation about aspects of the role that are not necessarily understood by the academic community:

> *Sometimes [we] might be perceived as a threat, either as the vanguard of a new way or as a service unit who exist because some executive has determined that there is a skillset missing from their workforce, because there is. So, I describe learning design, in my context, as working side by side with an academic to make a richer experience for students.*

From this it is possible to conceptualise the work of these learning and curriculum designers as being complex and requiring both knowledge and skill in learning, teaching and technology but also requiring substantial political and social acumen.

The concepts covered in this first part of the mapping and interpretation process only cover a small sample of the ideas and notions that were raised during the interviews. However, these concepts are those that are of most interest in helping to answer the research questions posed when this study was developed. In the following phases of the analysis, these other issues and ideas will be discussed more fully.

Nature and range of phenomena

To map the range of themes, each of the main themes that emerged from the study and were distilled as part of the process of identifying the thematic framework will be discussed.

Learning theories and knowledge – epistemic foundations*:* As was evident during the discussion of the conceptual notions of learning among the participants, there is a strong tendency for participants to draw on social constructivist and constructivist notions of learning when thinking about their practice. Despite this tendency, there was also some diversity in the theoretical underpinnings that were brought out during the interview process. These ideas spanned everything from high level taxonomies of knowledge such as Bloom's revised taxonomy (Krathwohl, 2002), through to broad trends and down to more pragmatic notions such as Mayer's (2009) Multimedia Learning Theory.

It is perhaps not surprising that Bloom's revised taxonomy (Krathwohl, 2002) was mentioned by a number of the interviewees. The taxonomy is the basis for the Australian Qualification Framework (AQF) and is thus an important underpinning framework for policy and practice in Australian higher education. Leanne stated, "Because of the way in which [the institution] has been working over the last three, four years, preparing for AQF and so forth, we tend to work with Bloom's taxonomy". Third space professionals working in learning and curriculum design roles are both at the coalface of teaching in higher education but also need to work across disciplines, a particular aspect of their role that was referred to by Erin in relation to the use of the LMS: "That's extremely valuable knowledge sharing. Just even seeing how different people use the LMS tools differently, for different contexts and different disciplines. I think that's really valuable as well."

This places people in these roles in a unique position to identify emerging trends. Focussing specifically on the trends in relation to knowledge foundations, there were several mentions of the learning sciences and educational psychology as foundations for improving practice. For example, Phil referred to this when saying: "I think that neuroscience stuff is pointing that some of the theories that are there, it supports them and I think it pushes things to, this part of this theory and this part of whichever educational theory's a little bit stronger."

Another area that did receive some attention during the interviews were notions of learning that involve what are often referred to as 'higher-order processes'. In other words, metacognition, self-regulated learning and motivation were all discussed at various times during the interviews. Cara perhaps captured this trend in the following quote:

> *...if you do it by ticking the boxes, which a lot of courses have become, then that's where you're just not going to get it out. It has to be metacognition. It has to be higher order thinking skills. It has to be creating new things. It has to be synthesizing. It has to be analysing.*

Lastly, there was interestingly little mention about some of the more technology-oriented notions of learning in these interviews. There were only fleeting mentions of the emerging areas of educational data mining and learning analytics despite the emergence and rapid growth in popularity of these data-driven approaches to innovation and practice in higher education (Viberg et al., 2018). The only other theoretical foundation that was mentioned during these interviews was Mayer's (2009) Multimedia Learning Theory. There is perhaps another area for further investigation here in that there appears to be a disconnect between what universities are expecting from learning and curriculum designers and the kinds of knowledge people in these roles actually draw on in practice.

Evidence about learning*:* I next turn to the themes that emerged from the interviews around the kinds of evidence that underpin practice in learning and teaching in higher education. There was general agreement amongst the participants that evidence and particularly scholarly evidence was critical to learning and teaching in higher education. This was perhaps best captured by Boris, who said in relation

to his own practice:

> *...so I suppose with my role I'm very mindful not to just Google things for the hell of Googling, so I probably look at something more scholarly. Something that's a bit more academic. Something that's been written by someone who has done a fair bit of work in the area.*

When it came to what kind of evidence was most appropriate, there was however some disagreement among the group. For example, on the one hand Eddie said:

> *I think our practices can be informed, they have been. Everything we do, I don't think learning design as a field would not exist if it wasn't for neuroscience and psychology.*

On the other hand, Max voiced some scepticism about the capacity for evidence to contribute to practice: "I suppose you'd like to think you can pull a rabbit out of a hat and find something new, but I don't know."

So, it is evident that there is both some excitement and some trepidation about the use of diverse forms of evidence to inform practice. This is reflective of the discussions that are occurring in the research literature broadly. Some, such as Cowan (2019) are particularly sceptical about the potential of quantitative evidence to inform practice in higher education, while others, such as Agarwal and Bain (2019), are optimistic about the potential impact of quantitative evidence on teaching in universities. In this regard, it seems that the interviewees in this study reflect the debates and tensions evident more broadly in the higher education disciplinary community.

***Big picture trends**:* I now turn my attention to some of the bigger picture trends mentioned throughout the interviews. While these may not provide direct insight into the core research questions, they do provide further depth in terms of how the participants see the interface between theory and practice playing out on a larger scale. The aim is to provide further insight into how the learning and curriculum designers interviewed here see their roles in the context of the big picture issues in higher education raised and discussed previously. The big picture issues ranged from observations about students to complaints about the general political direction of higher education policy. From the student perspective, there was some discussion about the tension between education and the notion that learning should also be entertaining. Jessica captured this tension best when she said:

> *...but we've got problems with students really rejecting [established pedagogical] model[s] because of their whatever you call it, high entertainment needs, whatever has caused them to disengage.*

There was also some mention of issues surrounding the ways in which students choose to communicate, an issue that has been evident for some time in the sector (e.g. Lodge, 2010). Selina put it this way:

> *...we've got a whole lot of technology and the effects of that, and that keeps changing because we've now got a generation of students who are very used to communicating in different ways than when I grew up. That has an impact.*

At the other end of the spectrum, there was some consternation about the vocational and neoliberal focus of higher education. In particular Eddie argued:

> *[W]hat I'm talking about is the idea that the neoliberal, economic, rationalistic view of education, that you get a degree to get a job. I think every university has changed their business structure over the last two decades predicated on that assumption and I've been sort of challenging that over the last 15-20 years saying "no, students are still here for the experience, they're still here for that discourse, that engagement." Last couple of years I've started to wonder if maybe I'm living in some 1980's dreamland because I think a lot of students do see themselves as paying customers who are here to get a thing which will help them in a certain way.*

It is therefore evident that curriculum and learning designers are perhaps also experiencing some of the same frustrations that others have voiced in the literature about the ways in which students are engaging in higher education (e.g. Gourlay, 2015) and about how the focus of university study has been possibly mired in a flawed neoliberal ideology (e.g. Tight, 2019).

***Practical issues related to day-to-day work**:* Practical issues are perhaps to be expected as they were reported in the interviews. There were some notable recurring themes, however. One of the main recurring themes centred on the difficulties of working within a large bureaucracy like a modern university. Other issues often reflected those that have been reported in the literature. These included the relegation of teaching as subservient to research (as per Chen, 2015), the perceived influence given to technology vendors and suppliers (Hollands & Escueta, 2020) and the difficulties associated with the misconceptions around the time and resources required for effective technology-mediated learning (as per Gregory & Lodge, 2015).

Issues that are not as commonly reported in the literature and perhaps therefore speak to the unique circumstances of curriculum and learning designers were related to their influence as change agents. Several participants spoke of the concurrent need to but difficulty in enacting change within the organisation. What the interviewees find particularly difficult about this process is that they often have very little to no say about the high-level curriculum. In other words, their work tends to focus on the operational aspects of the curriculum. Eddie voiced this frustration as follows:

> *Achieving those learning outcomes through assessment strategies, and assessment that's a real bone of contention for us because it is locked down and it is locked down as every university has a very bureaucratic system, for good reasons because students are actually making financial decisions on the basis of what's advertised in a university handbook. If something says it has to be a 3000 word written assessment, people throw their hands up in the air and look at the missed opportunities of how you could use online engagement to make that a little bit more engaging.*

So, it would appear that curriculum and learning designers find themselves in a difficult position. They draw on deep knowledge about learning and pedagogy that is only utilised in essentially executing a curriculum that has already been decided. This therefore leaves these professionals with little scope in terms of strategically influencing how learning and teaching occurs.

***Strategies for going about day-to-day work**:* Within the context of the constraints they described, the participants also mentioned strategies for practicing within this constrained environment. One of the strongest themes to emerge from the interviews was the need for cooperation, collaboration and working across boundaries. Erin probably captured this theme best:

> *I learn a lot from other people. I want to learn a lot from other people, so I do talk to other people all the time. I like the fact that it's kind of like a constant refining, constant improving. It's not a one size fits all, I think that's really important.*

Aligned with the notion of communities of practice (as per Lave & Wenger, 1991), it would appear that the interviewees here are particularly reliant on their peers and collaborators to continue to improve and update their practice. This is perhaps not only important but essential in an area of practice where there is such a dynamic and fluid set of tools and approaches (Elliot & Lodge, 2017). So, while there was also some discussion about the need to keep up with the research literature, attend conferences and engage in professional development, the main thrust of their ongoing updating of practice seems to be driven through collaboration and an evolving sense of community with peers, both in the academic and third space.

Apart from the need to collaborate and learn from each other, the participants also seem to draw very deeply on their own experiences and on tacit knowledge to manage day-to-day issues. Selina claimed that:

> *I just find now that I pick and choose according to the situation. As you've probably noticed, I have trouble bringing theorist's names to mind and so forth, but that's the kind of thinking that I am, thinking in conceptual rather than names and dates and all the rest of it. They're definitely sitting there, and it's a mixture of the theory and also what I've found through my experience works well and what doesn't in what situations.*

In both cases, it was apparent that each was using their experience in practice to inform what they were doing. This is an important point. While there may be a perception that third space professionals are failed academics (e.g. see Whitchurch, 2012), what this theme suggests is that the participants here actually have deep and highly relevant knowledge that is specific to their practice as curriculum and learning designers. This is something that is perhaps not necessarily recognised and therefore not

necessarily understood by managers and policymakers.

***Organisational issues**:* The last two thematic categories to emerge from the interviews surrounded issues related to the organisational context the participants are in and the role related issues they experience. In relation to the first of these categories, there was some, maybe inevitable, discussion of the prioritisation of research over teaching. These comments overlap somewhat with those mentioned in discussion of their day-to-day work. Boris described this issue thus:

> *The academic would be always thinking "it's not about the learning, it's about the research. It's about how can I manoeuvre the teaching that I'm doing into better outcomes for my research," because effectively that's what's celebrated. That's what's given rewards, so you know, I don't know how much learning goes on in higher education to be honest.*

Apart from this evident theme, participants also expressed some frustration at the limited opportunities they have for collaboration and the overall amount of support they receive for their work. Max summed it up succinctly when he said: “We don't have enough of these conversations.”

So, it would seem that the interviewees in this study express similar concerns about the overemphasis of research over teaching in universities that are commonly raised in the scholarly literature (e.g. Chen, 2015). It also seems as though there is a need for more opportunities for networking and conversations about how to move practice forward. This was a common theme emerging through all the interviews.

***Role-related issues**:* Finally, participants had particular issues to discuss in relation to their roles. A strong theme to emerge, directly related to the role, is that there is some difficulty in equating theory, evidence and, through the lens of their role, interpret policy for practice through brokering and negotiation. Natalia described this situation in this way:

> *I'm brokering between high level strategy policy resources to broker all the staff members and some of their students to embody and enliven and bring to life and embed the strategy and policy, particularly in the indigenous education space. I'm very much brokering. Breaching, brokering, negotiating, mediating, engaging, creating momentum, just creating a buzz about it and momentum.*

Leanne described similar experiences:

> *It's an interpretative role, because it's interpreting not only policy procedure, rules, guidelines and how that affects design, but it also interprets the literature. It also interprets practice from one area, one discipline to another. It also interprets experience as well, into something that's practical for the need of the academic at the time.*

The current study is not aimed at delving too deeply into the frustrations that third space professionals experience in relation to their role, but it was evident here that, while there is some level of relief that the pressures of a standard academic position do not apply, there are other tensions that occupy curriculum and learning designers in their role. These also provide some ground for future investigations that build on Whitchurch’s (2012) work in this area.

Associations

The main association of interest in this study is that between the foundational knowledge that curriculum and learning designers draw on and how that knowledge influences their practice. What is most evident from the results of this investigation is that learning and curriculum designers appear, at least on the basis of this relatively small sample, to draw on a range of knowledge and experience to do their work. This knowledge appears to fall into two major categories. The first is that they tend to rely on dominant theories about curriculum design founded on the key notion of constructivism. Many of the participants mentioned this directly as a central aspect of their thinking in relation to learning. Although there was some discussion of the other theoretical and evidentiary bases, the theoretical underpinnings of the practice of the interviewees in this study appear to align with those held most commonly in higher education practice, i.e., constructivism and constructive alignment.

Sitting in sync with this epistemic foundation of constructivism, it appears as though the curriculum and learning designers interviewed here also draw very deeply on their experience. It was evident in several of the comments made by participants that this knowledge is drawn on intuitively, suggesting high levels

of expertise and tacit understanding that are brought to the fore in a dynamic way when required.

In contrast to the foundations that the participants draw on and their ability to rely on their extensive experience in aspects of their work, there was a real sense of the need for professional development and networking opportunities. This is something that is perhaps lost in the fact that many curriculum and learning designers do have deep knowledge and skill but are also attempting to keep up in an ever-changing context. The findings of this study suggest that this group of highly knowledgeable and skilful professionals are feeling a strong need for further development. The dynamic nature of practice with educational technologies is potentially partly to blame here and it is these underpinning explanations that we will discuss next.

Explanations

One overarching observation was evident in the results of this study. That is that there was some diversity in the views expressed by the participants about various aspects of their roles and about what knowledge they use to do their work. Despite constructivism and constructive alignment being dominant as a foundation, there were many other theories mentioned during the interviews. One other observation not captured in the transcripts directly is that learning and curriculum designers do not tend to rely on specific design frameworks regularly. Participants were asked this question directly with all unanimously saying that they tend to rely more on foundational knowledge about how students learn and the higher-level notion of constructive alignment. None of the interviewees reported relying regularly on a design framework like ADDIE (Kruse, 2004). What this again suggests is a more fluid form of expertise in design that relies on tacit knowledge rather than descriptive or step-wise design processes.

The contrast between the strong leaning towards established and dominant forms of conceptualising learning and newer forms of evidence is also worth consideration. What this contrast suggests is that there is a tendency to switch between traditional notions and newer ways of thinking. This may suggest a high level of epistemic fluency or comfort in the capacity to shift between ways of thinking about learning and teaching (Markauskaite & Goodyear, 2017). This fluency may be a critical aspect of practice in design for learning. The ability to draw on, not just different approaches, but also on different ways of thinking may be a highly proficient way of adapting to the dynamic conditions in higher education in the 21st Century.

One final underpinning explanation of the results found in this study is the apparent focus on technology. The requirements of universities for people in learning and curriculum design roles tend to focus on technologies and tools. This emphasis might help explain why the interviewees expressed some frustration about having little say over curriculum. Given their apparent deep knowledge and skill in applying learning theories, there is an apparent mismatch between this knowledge and the ways in which it is applied. Learning and curriculum designers may indeed have more impact if that extensive knowledge was used to inform the curriculum from the syllabus down.

Implications

The aim of the current study was predominantly exploratory. There are some themes that emerged from the interviews that may be worth considering both in terms of further research and in terms of the implications for university management and policymakers. The most obvious of these is that universities seemingly have a largely untapped resource at their disposal. Synthesising the results of the study, there is a sense that the participants have broad and deep knowledge in learning theories and rely on a wealth of experience but have less scope for impact than is possible. While academics may be reluctant to hand over core aspects of their curriculum to third space professionals, there may be some benefit in doing so, or, at a minimum, looking at more equal partnerships.

In concert with the concerns raised about partnerships, one of the major issues emerging from the interviews is the seeming mismatch between the knowledge and skills of learning designers and the focus of their work. This may well be due to the unequal relationship they have with academic staff, who retain ultimate ownership and decision-making capacity about what occurs in their units of study. These issues broadly resemble the kinds of problems that can emerge when students engage in partnership with academics on curriculum and learning design projects (Godbold et al., 2021). Seeking possibilities for creating more sophisticated ways of leveraging the pedagogical and technical knowhow of learning designers in collaboration with content knowledge experts will be important for institutions. In doing so, there are substantial benefits to be gained from the collective capacity for epistemic fluency, as has been observed when students are engaged in genuine design-focussed partnerships with academics

(McLaughlan & Lodge, 2019). Creating the basis for more equal design partnerships, perhaps more than any other finding in this study, is a key area for university leadership to consider. Many of the other frustrations felt by learning designers are like those experienced by academics (e.g., for example, Huang et al., in press). Ultimately, figuring out how best to draw on and integrate the vast wealth of knowledge and experience in this emerging group of professionals in higher education will be a useful and valuable exercise for both those who occupy these roles and those who employ them.

A further, aligned area that will be worth exploring is the kind of development that is provided to curriculum and learning designers. There was an undercurrent across all the interviews of the critical need for collaboration and networking. As discussed, this is no doubt due to the constantly shifting nature of work with learning technologies, in particular, in response to COVID19 driven social distancing requirements. Providing further scope for professional development may be useful in both creating more fulfilling working experiences for these staff members and contributing to knowledge sharing across universities.

Conclusions

The aim of the current study was to explore the ways in which third space professionals, particularly those engaged in learning design work, draw on bodies of knowledge to go about their work. The participants in this study provided a range of views about the epistemic foundations they rely on in their roles and about how those play out in practice. As described in the introduction, there are significant changes currently underway in higher education globally, no doubt exacerbated by the COVID-19 pandemic (Tesar, 2020). These forces impact not only on institutions but also on those who work within them (see Huang et al., 2021). This was evident in the interviews conducted in this study.

The changing conditions in higher education require new thinking and new ideas to adapt a deeply traditional approach to pedagogy relying on lectures and the expert knowledge of academics to a more dynamic, information rich world. The pressure being applied to universities in the COVID-19 era necessitate a rethinking of the kinds of approaches being used in learning and teaching in universities (Huang et al., 2021). It has proven difficult to upskill academics in new forms of design thinking required to develop more sophisticated technology-mediated assessment tasks and learning activities (Habib & Johannesen, 2014). This has necessitated a shift from attempting to develop academics in these areas to bringing this expertise into institutions in the form of third space professionals.

If the purpose of this process is to bring fresh thinking into universities, the results of this study suggest that the impact has been mixed. There is a strong emphasis on established notions of constructivism and constructive alignment among the participants in this study. While there may be nothing inherently wrong about that due to the apparent success of constructive alignment in improving higher education, there has been mounting criticism of constructivism as the only or dominant way of conceptualising learning (e.g. Tobias & Duffy, 2009). Participants in this study demonstrated openness to new ways of thinking about the learning process, hence demonstrating the foundation for epistemic fluency. What this perhaps therefore represents is a mix of established ways of thinking about instruction in higher education and new ways of thinking about what learning is and how it occurs. Aligned with this was the perhaps counterintuitive finding that there was little mention of specific design models or approaches. Instead, it appears that the curriculum and learning designers interviewed in this study draw on their knowledge and experience in dynamic ways as the need arises. Overall, this suggests a depth of understanding about learning and teaching as multifaceted and complex phenomena requiring sophisticated design approaches and flexibility in the knowledge that informs those approaches.

Conflict of interest

The author declares that there is no conflict of interest.

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