



Pedagogic practices in online and blended learning environments in South African higher education: Implications for students' epistemological access

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Abstract

This thesis, set in the context of widening participation in South African (SA) higher education (HE), explores pedagogic practices in online and blended learning environments within the university and their implications for students' epistemological access – i.e. access to powerful disciplinary knowledge. The COVID pandemic necessitated a shift to emergency remote teaching and learning in SA HE, followed by a gradual evolution into more intentional blended learning design, which most universities have decided to retain to some extent. This period also illuminated and exacerbated the digital and other inequalities that students face. The academic development work that has traditionally been confined to the contact space now needs to be extended into the digital space. The research design took the form of a qualitative, multiple case study design, featuring ethnographically-informed observations and interviews of first-year courses on extended curriculum programmes of various disciplines at a South African university. A Bernsteinian theoretical and analytical framework was applied and adapted to account for the nuances of technology use in a South African context. Pedagogic modalities mapped out for each case study illustrate the unique ways in which online and blended pedagogic practices impact students' engagement with powerful knowledge across diverse disciplinary contexts. The thesis addresses the current paucity of research interrogating the nature of epistemological access in the digitally-mediated spaces that now feature prominently in SA HE. The concept of epistemological access itself is interrogated and the findings enrich our understanding of the concept in the contemporary context and the considerations for supporting students in this regard.

Keywords: pedagogy, educational technology, online education, blended learning, South African higher education, widening participation, epistemological access, academic literacy, digital literacy, digital inequality, Basil Bernstein, classification and framing

Chapter 1: Introduction and context of the study

In the context of massification of higher education (HE), widening participation (particularly for an increasingly diverse student body) has become a key agenda worldwide (Warren, 2002; van Schalkwyk, Bitzer & van der Walt, 2009; Smit, 2012; Becher & Trowler, 2001). In the South African context, this agenda is also fuelled by a need to redress the inequalities of colonialism and apartheid, to strive for the democratisation of an acutely unequal HE system (Warren, 2002; Bozalek & Boughey, 2012; Ashwin & Case, 2020; Nomdo, 2017; Czerniewicz et al., 2014; McArthur & Ashwin, 2020), and to increase social mobility and build economic prosperity (Mzangwa, 2019; Swartz et al., 2018; DHET, 2020; Badat, 2010). Given the historical marginalisation and weakness of the vocational sector in the country, higher education is often seen as the only viable route for social mobility (Ashwin & Case, 2018; 2020; DHET, 2020). There is thus a need to explore innovative ways of delivering high quality, accessible, and affordable higher education to large groups of students.

Much of the structure and curricula of South African university programmes were established early in the last century, and were designed for a relatively homogenous, monocultural, and monolingual student body, especially with regard to educational capital, who experienced home and school environments that did not differ much from those of their professors (Scott, Yeld, & Hendry, 2007; Boughey, 2000). Higher education participation in South Africa is still very racially skewed, graduation rates are low, and attrition is high (Marshall & Case, 2010; Smit, 2012; Smith, 2013; van Schalkwyk, 2007; Sibiya & Mahlanze, 2018; Swartz et al., 2018; Nomdo, 2017; Luckett & Shay, 2020; Badat, 2010; DHET, 2023).

Inequalities in the public schooling system are a significant contributor (Smith, 2013; Mzangwa, 2019; Baker et al., 2019; Ashwin & Case, 2020; Badat, 2010), with 75% of schools in South Africa being classified as 'dysfunctional schools' with severe issues related to teaching and performance (Leibowitz & Bozalek, 2014; Marshall & Case, 2010). These schools generally produce what is often referred to in the literature as 'non-traditional', disadvantaged, or under-prepared students who are diverse in terms of age, education, class, language, and are often from lower socio-economic groups

(Smit, 2012; Warren, 2002). These students often do not possess the forms of social, cultural, and educational capital that are favoured in higher education settings (O'Sullivan, Robson & Winters, 2019), as well as the necessary academic skills crucial to succeeding in these environments (Smit, 2012; Bangeni & Greenbaum, 2019). Students find themselves in academic environments where particular ways of being – usually middle-class, white, English-speaking, Western, and masculinist – are privileged (Bozalek & Boughey, 2012; Badat, 2010). This can result in feelings of alienation and internal identity conflicts as students balance assimilation and maintaining sense of self (Nomdo, 2017; Badat, 2010). Many students see this transition from school to university as the biggest challenge in their higher education experience (van Schalkwyk, Bitzer & van der Walt, 2009).

In contexts of diversity and inequality, a unitary approach which favours some students over others is not sustainable (Scott, Yeld, & Hendry, 2007). It is important to balance equity of access and equity of outcomes (Scott, Yeld, & Hendry, 2007; Shay, 2015; McLean, 2020), considering the barriers at point of access, as well as teaching and learning approaches that may impact outcomes for a diverse body of students (Stentiford & Koutsouris, 2020). While we have witnessed many successful efforts to increase formal access in recent years, it is also important to ensure that once a student has access, they also have an *equal chance* to achieve the desired learning outcomes that will allow them to succeed. In other words, we need to consider widening both formal access and 'epistemological access' which is here defined as access to powerful disciplinary knowledge (Morrow, 2009; McLean, Abbas & Ashwin, 2017; Boughey, 2000; 2002; Leibowitz & Bozalek, 2014; van Schalkwyk, Bitzer & van der Walt, 2009; McLean, 2020; Shay & Mkhize, 2018). This requires an investigation of the forms of curriculum and pedagogy that support epistemological access for all students who enter HE (Ashwin & Case, 2020; Wheelahan, 2010).

Scott, Yeld, & Hendry (2007) argue for a widening of the range of curriculum structures that are flexible enough to accommodate differentials in the pace of progression, such as extended curriculum programmes (ECPs) and other academic development initiatives, which are discussed in section 2.7 in the literature review. ECPs vary in format based on institution and faculty but their main functions

are to provide additional programme time (generally one extra year), accompanied by academic and social support for under-prepared students, much of it concentrated within the first year given this significant transitional period from high school to university. Academic development as a field is primarily concerned with enhancing the accessibility and quality of higher education and ensuring that equity is achieved via a higher education system that benefits all sectors of the population (Czerniewicz, 2004). This field champions ECPs which receive designated redress funding from the government (Ogude, Meyer, Mwambakana & Mthethwa, 2019; Case, Marshall & Grayson, 2013; Czerniewicz, 2004). There is a recognition of the need to provide additional support to students from disadvantaged backgrounds who have experienced poor schooling (Pearce et al., 2015; Ogude, Meyer, Mwambakana & Mthethwa, 2019) and to create the curriculum space needed to allow these talented but under-prepared students the opportunity to achieve success in higher education (Sibiya & Mahlanze, 2018).

Online education has been presented as one of the possible strategies for addressing widening participation in South African higher education (Morrow, 2009; Czerniewicz et al., 2014; DHET, 2020; 2023). Online education offers the potential for flexibility, specifically in terms of pace of learning, and this makes it an important avenue to consider when addressing the need for diversity in education provision, in conjunction with conversations around ECPs and other strategies to accommodate a diverse cohort of students. The seemingly intractable tensions between widening participation, increasing success rates, and enhancing quality, as well as the desire to not compromise exit standards, calls for alternative paths to the same learning outcomes (Scott, Yeld, & Hendry, 2007; Ng'ambi et al., 2016).

Indeed, South African HE policies have highlighted the potential role of educational technology in addressing inequalities through more flexible and inclusive forms of delivery (Ng'ambi et al., 2016; Jaffer, Ng'ambi & Czerniewicz, 2007). Online education has also been proposed as a strategy to address institutional challenges, such as the resource-intensive nature of large student numbers with limited academic staff, as well as the pressures to increase HE participation, and improve efficiency

and throughput in spite of diverse levels of preparedness of students (Ng'ambi et al., 2016; Jaffer, Ng'ambi & Czerniewicz, 2007). In section 2.9 in the literature review, this potential is discussed, as well as the challenges related to digital inequalities and digital literacies, and the ways in which online education has been politicised in recent years. This section of the literature review also differentiates between emergency remote teaching and learning and intentional blended learning approaches and discusses the implications for pedagogy and epistemological access.

The COVID pandemic and subsequent lockdowns necessitated a shift to emergency remote teaching and learning which, in many spaces within South African universities, slowly evolved into intentional, quality online and blended learning design (Pallitt et al., 2022). Now that lockdowns and restrictions have been lifted, universities have seen the value of retaining a mix of online, blended, and contact teaching and learning approaches going forward. This trend cannot neglect the challenges associated with epistemological access to the university that most South African students face, and the academic development work that has traditionally been confined to the contact space. In fact, the COVID pandemic exacerbated existing inequalities, and illuminated the severe digital inequalities faced by many South African students, an issue that first came to light during the 2015 and 2016 Fallist student protests and campus shutdowns (Czerniewicz & Rother, 2018; Czerniewicz, Trotter & Haupt, 2019; Swartz, Gachago & Belford, 2018; Trotter et al., 2022).

Given the new reality of higher education in South Africa, educational research with an overt social justice agenda, which considers the inequalities mentioned above, is valuable in exploring online and blended pedagogic practices with an equity and inclusivity lens. By taking a socially just approach to this research, the thesis not only explores the current status quo with regard to educational inequities but argues for approaches to the use of technology in education that intend to ameliorate this current situation. Indeed, as this study attests, there is much promising potential in this field to design online and blended pedagogic practices that support students' epistemological access. This is in addition to potential benefits around efficiency, scale, and cost which speak to formal access, although the extent of cost saving and efficiencies are contested and lack consistency across various

contexts (Laurillard, 2007). A deeper understanding of these pedagogic practices and the affordances and limitations of online and blended learning environments are required.

The thesis thus explores how pedagogic practices in online and blended learning environments in South African higher education impact students' epistemological access. Empirical work across four disciplinary case studies, as well as interviews with experts in the academic development and educational technology fields are presented, exploring the nature of online and blended pedagogic practices in SA HE and their implications for students' epistemological access. Basil Bernstein's work is applied and adapted for the theoretical and analytical framework of the study. Bernstein was an educational sociologist concerned with the ways in which curriculum and pedagogy can both reproduce and disrupt societal inequalities. His work provides a range of conceptual tools for analysing knowledge, curriculum, and pedagogy, and how students' access to powerful knowledge is shaped in educational settings. These concepts are wide-ranging and flexible and thus have been taken forward and adapted by researchers across a range of diverse educational contexts, from school level to higher education. They have been extensively applied in the SA academic development space given the shared concern with social justice in education, and thus provide a fitting framework for the current study. The study provides a novel application and adaptation of the concepts in online and blended learning environments in SA HE through a multiple case study design featuring ethnographically-informed qualitative research. Further, the thesis iterates on the concept of epistemological access itself, addressing a range of considerations necessary to understanding the concept and supporting students in this regard in a contemporary SA HE context.

Chapter 2: Literature Review

The key concern of this thesis is epistemological access – students' access to powerful knowledge at the university, and the ways in which pedagogic practices in online and blended learning environments impact that access. The literature review delves into the role of knowledge in higher education, and Bernstein's work provides the conceptual tools to grapple with questions of knowledge and what makes knowledge powerful, as well as the implications for social justice and equity. This study is set within the field of South African academic development and its history and current scope will be explored, including a discussion of academic literacy which is central to this work. The role of educational technology in SA HE will be addressed, as well as digital inequality and digital literacy which are integral to understanding the complexities of this context. Important considerations regarding teaching and learning in online and blended learning environments are discussed in a section on online learning design. Lastly, the review will examine applications of Bernstein's work across a diverse range of educational contexts, as well as how these concepts are applied in the current study, which will be addressed further in the methodology chapter.

2.1 Knowledge in higher education

Knowledge is at the centre of students' engagement with higher education, but the topic of knowledge is often neglected in higher education policy (Ashwin, 2014; McLean, Abbas & Ashwin, 2013a; 2015; Wheelahan, 2010; Wheelahan & Moodie, 2021; Barnett, 2009; Young, 2013). Bernstein's work explores how the distribution of knowledge relates to hierarchies in society, and how inequalities can be transmitted through curriculum and pedagogy, arguing that unequal distribution of power in society is by way of unequal distribution of knowledge through formal education (McLean, Abbas & Ashwin, 2013b; 2015). This work is thus useful in taking a social justice lens to educational research.

Bernstein's (2000) pedagogic device provides a framework for analysing how knowledge is shaped and transformed by different actors as it moves from the research realm into the classroom. At the field of production, disciplinary discourse is created. An agent transforms aspects of the empirical world into discipline-specific knowledge, primarily through research. At the field of recontextualisation, an agent adapts this disciplinary knowledge into a pedagogic discourse, such as a curriculum or lesson plan, intended for use in the classroom. At the third level, the field of reproduction, the curriculum knowledge has been enacted as pedagogic practice, which takes place between a transmitter and acquirer (teacher and student). This is the level at which the planned curriculum is taken into the classroom. We can think about knowledge as research in the field of production, knowledge as curriculum in the field of recontextualisation, and knowledge as student understanding in the field of reproduction (Ashwin, 2014). The curriculum defines what counts as valid knowledge, pedagogy defines what counts as valid transmission of knowledge, and, lastly, evaluation defines what counts as valid realisation of this knowledge (Bernstein, 1971; 1975).

Rather than conceptualising knowledge as an independent entity which can simply be transferred from one context to another, the pedagogic device acknowledges the complex process in which knowledge is transformed from its place in the empirical world into a research output, then into a curriculum, and finally into a pedagogic practice. The transformations of knowledge at each point can

be thought of as sites of struggle where different agents attempt to impose their own interests and understandings of legitimate knowledge (Ashwin, 2009; 2014; 2022). The field of production is governed by distributive rules which dictate how and where new knowledge is produced, what knowledge can be taught, by, and to whom, and under what conditions, creating hierarchically ordered social groups who have access to different types of knowledge, and therefore varying degrees of power (Bernstein, 2000; McLean, Abbas & Ashwin, 2013b; 2017). The field of recontextualisation is governed by recontextualising rules which shape how valued knowledge and dispositions are transmitted and acquired in educational settings, mainly through curricula (Bernstein, 1990; 2000; McLean, Abbas & Ashwin, 2013b). Lastly, the field of reproduction is governed by evaluation rules, which determine standards to be reached, and what are valued as legitimate texts within that discipline, both in terms of curricular content, and social conduct (Bernstein, 2000; McLean, Abbas & Ashwin, 2013b). This thesis focusses primarily on the field of reproduction – what happens in the classroom and how the curriculum is enacted through pedagogy – while also exploring the role of powerful knowledge across the pedagogic device.

2.2 Social realism

Bernstein's work has been influential in the development of social realism, a philosophical movement in the sociology of education field, which shares the desire to put knowledge centre-stage in conversations about higher education. His work provides the language to interrogate and discuss knowledge (Maton & Moore, 2010; Wheelahan, 2010; Wheelahan & Moodie, 2021). Social realism addresses the 'epistemological dilemma', a false dichotomy between positivist absolutism on the one hand, and constructivist relativism on the other (Maton & Moore, 2010; Lilliedahl, 2015). The former would position educational knowledge as universal, decontextualised, objective, value-free, and detached, whereas the latter would position educational knowledge as socially constructed within particular cultural and historical conditions (Maton & Moore, 2010; Lilliedahl, 2015). At the level of curriculum and pedagogy, this would suggest either a pure transmission approach when it comes to knowledge (an epistemic relation) or an approach which valorises the learner's experiences, neglecting knowledge in favour of who is speaking (a social relation) (Maton & Moore, 2010). Social realism argues for a position somewhere between the two extremes, in which the inescapably social character of knowledge is recognised, but this does not inevitably entail relativism (Maton & Moore, 2010). Social realism rests on three principles: ontological realism, epistemological relativism, and judgemental rationality.

Ontological realism implies a recognition that knowledge is about something other than itself, and there exists a reality independent from human experience, providing an external limit on what we can know (Moore, 2013; Maton & Moore, 2010; Young & Muller, 2013). Epistemological relativism suggests that knowledge is not necessarily universal, essential truth but that we can only 'know' the world in terms of socially produced knowledges which change over time and across socio-cultural contexts, therefore reflecting the conditions of their production (Moore, 2013; Maton & Moore, 2010). Lastly, the principle of judgemental rationality recognises that while knowledge is socially produced, there are rational, intersubjective bases for determining the relative merits of competing knowledge claims (Moore, 2013; Maton & Moore, 2010; Young & Muller, 2013; Morgan et al., 2017).

Some of the procedures and criteria by which humans collectively produce and evaluate knowledge are more powerful than others, in the sense that they are more reliable, hold up better against scrutiny, or have greater explanatory power (Moore, 2013; Maton & Moore, 2010; Young & Muller, 2013).

Social realism addresses some of the shortcomings of the progressive education movement, popular in Britain in the 1960s and 1970s, in which the focus was on the facilitation of the student's learning through joint construction, interpretation, and meaning making, rather than the transmission of knowledge. Bernstein was a staunch critic of this movement (Moore, 2013). This progressive approach to education called into question dominant and hegemonic forms of knowledge in curricula, suggesting that these forms of knowledge simply reflected the interests, perspectives, and standpoints of dominant social groups, for instance knowledge that reflected a 'bourgeois', 'male' or 'white' standpoint (Lilliedahl, 2015). In reducing education to the knowers rather than the knowledge one can risk drifting towards relativism, without any framework for deciding what knowledge is worthwhile to teach, or the assumption that there is no worthwhile distinction between powerful educational knowledge and everyday knowledge, making curriculum and pedagogy arbitrary (Moore, 2013; Lilliedahl, 2015; Maton & Moore, 2010). Bernstein argued that in progressive education, although the teacher is positioned as a facilitator of each students' natural development rather than a sage on the stage transmitting knowledge, what was actually being transmitted were the tacit rules associated with being a certain type of middle-class acquirer (Moore, 2013). The pedagogy is still there even if it is being denied, but is now being masked, making it more difficult for some students to master and thus exacerbating educational inequalities (Moore, 2013). Again, social realism offers a middle ground in which knowledge is not merely a reflection of some essential truth, or some social power, but something in its own right (Maton & Moore, 2010). Knowledge is emergent from but irreducible to the practices and contexts of its production, recontextualisation, teaching, and learning, and it can 'react back' on the social contexts and practices from which it is produced (Maton

& Moore, 2010; Lilliedahl, 2015). Social realism can thus account for transformation in education, rather than solely reproduction (Bernstein, 1990; Morgan et al., 2017).

If there are rational grounds for judging and evaluating knowledge claims, then some forms of knowledge are more epistemologically powerful than others (Maton & Moore, 2010; Moore, 2013; Young & Muller, 2013). Social realism has a strong social justice agenda, arguing for equality of access to the most powerful forms of knowledge through the means that most reliably enable that access (Maton & Moore, 2010; Moore, 2013; Young, 2013). The social justice agenda of social realism aligns with the aims of the current study to support epistemological access to the university for all students, widening participation, and disrupting the current inequalities in higher education. Although higher education can often reproduce inequalities in society, it does also have the potential to challenge these inequalities by providing more equitable access to powerful knowledge (Morrow, 2009; Ashwin, 2022).

2.3 Powerful knowledge and epistemological access

What makes educational knowledge powerful? Bernstein (2000) drew on Durkheim's distinction between the sacred and profane, and thus esoteric and mundane knowledge to develop his theory of knowledge, particularly his work on horizontal and vertical discourse (Wheelahan, 2007; 2010; Muller & Young, 2014). Horizontal discourse (profane, mundane) is tied to a specific context and only applicable and relevant within that context, concerned with the everyday and lacking generalisability outside the context. Bernstein (2000) describes this as common sense, local knowledge shared by a community, which is typically informal, and oral rather than written in nature. The transmission of this discourse usually occurs tacitly and informally via modelling or showing, such as the informal processes of induction or assimilation into a culture and learning to behave in socially accepted ways (Bernstein, 2000; Moore, 2013).

Vertical discourse (sacred, esoteric), on the other hand, is context-independent, taking one beyond immediate needs and experience (Young, 2013; Muller & Young, 2014). It fosters the ability to challenge beliefs and spark innovation, developing a capacity for creative and critical thinking (Morrow, 2009), allowing one to envisage alternatives and new possibilities (Young, 2013; Young & Muller, 2013; McPhail & Rata, 2017), new realities (Bernstein, 1971) - the 'yet to be thought' (Bernstein, 2000: 30). It refers to the abstract, theoretical, and conceptual knowledge that is generally confined to the university – the official, formal knowledge of an institution (Bernstein, 2000). Pedagogy usually takes place in a formal educational context, like the university, rather than the everyday settings of horizontal discourses, with formal evaluation as well (Bernstein, 2000; Moore, 2013; Young & Muller, 2013). This kind of discourse allows students to participate in society's conversations, to engage in political, moral, and other debates, to interrogate and evaluate knowledge claims, and to play a part in shaping how knowledge develops in future (Wheelahan, 2010; Ashwin, 2022; Morrow, 2009; Young, 2013). Access to vertical discourse – abstract, theoretical, disciplinary knowledge – is therefore access to powerful knowledge and thus a matter of distributional justice (Wheelahan, 2010; Young & Muller, 2013; Muller, 2014; Fraser, 2005; 2010).

Given the central role of discipline in this conceptualisation of powerful knowledge, it is important to understand how students are supported in their immersion into disciplinary communities. Bernstein argues that the teacher is responsible for helping to shape their students' disciplinary identities (Bernstein, 1971), to make them legitimate knowers within a discipline. There is a performative aspect of disciplinary identity and, as suggested by the social realists, this requires a focus on both knowledge and knowers. Students need to demonstrate competence at performing the discipline by way of text work, such as reading, writing, research, and discussion, but they also need to demonstrate the possession of a set of dispositions, such as being questioning, critical, and analytical as valued in the discipline of sociology, for example (McLean, Abbas & Ashwin, 2013a; 2013b; 2015; 2017). This suggests that to become a legitimate disciplinary knower requires both 'doing' and 'being' (McLean, Abbas & Ashwin, 2013a; 2015; 2017; Morrow, 2009). Embodiment of this identity gives students a legitimate disciplinary 'gaze', such as a social science 'gaze', and access to pedagogic rights (Bernstein, 2000; McLean, Abbas & Ashwin, 2013a; Bertram, 2012). The concept of pedagogic rights further expands on what makes educational knowledge powerful.

Bernstein proposed three pedagogic rights that a student may access once they have developed a legitimate disciplinary identity and gaze. The first is enhancement in the personal realm, or individual enhancement, such as the personal growth that students experience at university (Bernstein, 2000; McLean, Abbas & Ashwin, 2013a; 2013b; 2015; 2017). Depending on their area of study, this could include increased confidence, becoming more independent, identifying new possibilities and opportunities, or feeling that their minds are opened (McLean, Abbas & Ashwin, 2013a; 2015; 2017). The second right is inclusion in the social realm which could include both a sense of belonging and solidarity with their communities, but also the ability to question and critique what they see going on in the world around them (Bernstein, 2000; McLean, Abbas & Ashwin, 2013a; 2013b; 2015; 2017). Lastly, there is participation in the political realm, including civic action with the goal of improving the social world and tackling relevant social issues (Bernstein, 2000; McLean, Abbas & Ashwin, 2013a; 2013b; 2015; 2017). If pedagogic rights are distributed fairly, they have the potential to disrupt

societal inequalities (McLean, Abbas & Ashwin, 2013a; 2015; 2017; Bourne, 2004), hence the importance of supporting students' access to powerful disciplinary knowledge. As argued by the social realists, a social justice approach should support equity of access to powerful knowledge for all students and enable that access through the most feasible means.

The thesis thus defines epistemological access as access to powerful disciplinary knowledge (McLean, Abbas & Ashwin, 2013a; 2015; 2017; Morrow, 2009). The term 'epistemological access' was coined by Morrow (2009), an influential academic in the South African higher education space, and the term's reintroduction is usually credited to Chrissie Boughey (Muller, 2014). Morrow defines epistemological access as learning how to become a successful participant in an academic practice (Morrow, 2009: 78), and emphasizes the importance of high quality, discipline-focussed education in enabling that access. Morrow (2009) makes the distinction between formal and epistemological access, explaining that mere formal access to higher education does not necessarily enable epistemological access to the powerful knowledge of the university.

Although Morrow's (2009) work is helpful in understanding the concept of epistemological access, it does tend to place the burden wholly on the individual student. Morrow (2009) warns against a culture of entitlement, where students expect automatic transmission of epistemological access by virtue of attending the university, where academics are reluctant to subject students to critique or the difficulties of learning, and where students are equally resistant to feedback or challenge. I would argue that this is a misdiagnosis of the problem, and there is very little in the literature or in empirical work to suggest that the main barrier to epistemological access in South African HE is student entitlement (Smit, 2012; García & Guerra, 2004; Shay, 2015; Taylor, 2018). Of course, students must take responsibility for their learning and all students have agency in the learning process. There are, however, significant historical and systemic barriers to educational attainment for most young South Africans. The danger of placing the burden of epistemological access on the individual student is that it suggests that it is simply a matter of hard work, humility, and perseverance, and therefore feeds

into a deficit discourse in which the student's failure results from their own shortcomings or lack of hard work. This approach neglects an interrogation of the institutional and disciplinary practices which may be exclusionary. A social justice perspective argues for an interrogation of institutional and disciplinary practices which may present impediments to equity of access for all students.

Morrow (2009) also expresses a concern that students would want to overturn academic practices altogether, and put in their place political practices, asking the question, 'If you don't accept the value of academic practices, why have you gone to the expense and the trouble of registering as a student at a university?' (p81). I would argue against a polarised view that suggests either an uncritical acceptance of the institution and its practices, or a complete rejection of these. Meaningful institutional transformation will inevitably entail some interrogation and critique of current practices, and these can be positive steps in making the institution more inclusive and equitable. Morrow (2009) also claims that academic practices are essentially trans-cultural, possessing intrinsic and shared standards of argument and evidence, using mathematics as an example of this, and referencing the ideals of human emancipation that we inherit from the Enlightenment (Morrow, 2009). He also reduces calls to Africanise the curriculum in response to its Eurocentrism as simply conversations around content, given that the academic practices themselves are trans-cultural (Morrow, 2009).

I would argue that the conversation is broader than content, and there are multiple epistemologies and ways of approaching academic practice, even though Eurocentric epistemologies continue to dominate higher education globally. Mathematics and other STEM disciplines are often drawn on as examples of neutral or objective ontologies and epistemologies, but even their supposed objectivity is open to critique, such as through the work of Dr Zulumathabo Zulu on African metaphysical paradigms (Zulu, 2021), among others. As argued by the social realists, epistemological relativism suggests that rather than an essential, universal truth, we can only 'know' the world in terms of socially produced knowledges, and it is important to recognise the socially and contextually

embedded nature of these (Moore, 2013; Maton & Moore, 2010). We need to recognise, for example, the social context of the Enlightenment and its role in colonialism and the oppression of indigenous ontologies and epistemologies. Morrow (2009) aligns with the social realists and their promotion of judgemental rationality, arguing for rational, intersubjective bases for determining the relative merits of competing knowledge claims (Young, 2013; Moore, 2013; Maton & Moore, 2010). These processes of inquiry should be open and transparent, and should encourage collaboration, so that everyone can understand how knowledge is developed and evaluated. This aligns with the academic literacies approach covered later in this chapter, recommending that academic practices within disciplines are made explicit for all students, and therefore avoiding exclusion of those that are 'underprepared' for university study, or who have not been informally inducted into the 'hidden curriculum' of the discipline or institution.

2.4 Contesting powerful knowledge and decolonisation

In recent years there have been calls to interrogate and reevaluate the kinds of knowledge that are valued in academic institutions. One of the key demands of the Rhodes Must Fall and Fees Must Fall protests in South African higher education in 2015 and 2016, was for the decolonisation of institutions of higher education, including decolonisation of curricula and pedagogy.

Smith (1999) and Hall & Tandon (2017) argue that the ways in which universities have constructed powerful knowledge, through disciplines as an example, are based on exclusion, insulation, and marginalisation. Other ontologies and epistemologies, such as indigenous knowledges, are thus relegated to the periphery. Universities and their disciplines dictate what knowledge is powerful and by virtue which knowers are powerful. Smith (1999) draws on Bernstein's concept of classification to explain how disciplines are created and maintained via strong boundaries and insulation.

Colonial conceptions of knowledge position it as objective, neutral, and person-less (Patel, 2015). This is similarly reflected in the distinction above between horizontal and vertical discourse and the implication that vertical discourse represents powerful knowledge by virtue of its abstract, theoretical, and context-independent nature. This conception of powerful knowledge, however, is at odds with the ways in which some indigenous knowledges are described in the literature. Rather than being untied from the local, context-independent, and abstract, some indigenous knowledges are described as being inherently tied to the local context of the land and environment (Smith, 1999; Tuck & Yang, 2012; Hall & Tandon, 2017), with the disruption of indigenous relationships to land representing epistemological and ontological violence (Tuck & Yang, 2012). Rather than being confined to the formal educational context, indigenous knowledges are often acquired through observation, practice, guidance, stories, and proverbs, with a focus on group rather than individual knowledge (Smith, 1999). Finally, rather than being confined solely to academic writing, many indigenous knowledges are represented, expressed, and shared via a variety of forms, including text, image, poetry, plays, music, ceremony, and biography (Smith, 1999; Hall & Tandon, 2017). Smith

(1999) argues that academic writing can even be at odds with how indigenous knowledge is expressed. There is evidence that the indigenous knowledge that played a foundational role in the development of disciplines like mathematics, for example, was originally intended for addressing real world problems relevant to specific contexts, such as agriculture or navigation, even though this discipline has evolved to now value deductive and abstract approaches at odds with its origins (Hoadley & Galant, 2019).

Not only has Western academia historically been unable to reckon with the idea of multiple ontologies and epistemologies, the insulation and exclusion through which many academic disciplines have been constructed have marginalised and devalued indigenous knowledges (Smith, 1999; Hall & Tandon, 2017; Moolman & McMillan, 2021). Indigenous knowledges have been relegated to the realm of horizontal discourse – tradition, common sense, subjectivity (Hall & Tandon, 2017) - and thus excluded from conceptions of powerful knowledge as decontextualised and objective (Smith, 1999), and even portrayed as pre-modern and backward (Tuck & Yang, 2012). As Barrett & McPhail (2023) indicate, horizontal discourse is sometimes presented as a 'deficit' version of vertical discourse in the literature. Interestingly, Bernstein (1971) claims that one discourse is not inherently better than another, but society places different values on these discourses.

Hoadley & Galant (2019) argue that the challenges of decolonising university curricula are often met with approaches that diversify course content, but neglect to address the evaluative criteria which dictate what actually counts as valid and legitimate mastery of the discipline (Hoadley, 2006), and thus what is valued in the institution.

> *But here, too, the issue of evaluation is evaded. What will count in the end? Is this about opening up access while the rules of the game and the requirements for mastery remain the same?*
>
> *(Hoadley & Galant, 2019: 102)*
>
> *...producing pedagogies that bluff their way to the end until strong evaluative rules kick in and students find failure after all.*
>
> *(Hoadley & Galant, 2019: 111)*

There are different interpretations in the literature regarding the connection between horizontal and vertical discourse, and these are often depicted in binary terms with academic (vertical) knowledge being positioned as powerful and superior, and everyday, contextual knowledge as inferior (Wheelahan, 2007; Muller & Young, 2014; Barrett & McPhail, 2023). In their conceptualisation of radical visible pedagogy, Barrett & McPhail (2023) argue against these dichotomous understandings of knowledge, arguing that both horizontal and vertical discourse are integral in students' access to powerful knowledge. For one, they describe the integration of horizontal and vertical discourse as a pedagogic strategy in scaffolding students' access to powerful knowledge (Barrett & McPhail, 2023). The concepts of semantic gravity (SG) and semantic density (SD) (Maton, 2013) are drawn on to illustrate this pedagogic strategy and to describe the principles underlying the structure of knowledge. Semantic gravity conceptualises to what degree meanings depend on their context to make sense (Maton, 2013). Represented along a continuum, the stronger the SG, the more meaning is dependent on its context, and the weaker the SG, the less dependent meaning is on its context (Maton, 2013). Semantic density, on the other hand, refers to the degree of condensation of meaning within practices, e.g. symbols, terms, concepts, phrases, gestures, or expressions (Maton, 2013). The stronger the SD, the more meanings are condensed within practices, the weaker the SD, the less meanings are condensed (Maton, 2013). $E=mc^2$ is an example of meanings that are highly condensed within a short equation of only a few symbols. While vertical discourse typically involves weaker SG and stronger SD, and horizontal discourse stronger SG and weaker SD, the understanding of these concepts as existing along a continuum rather than as opposing types helps us to visualise the transitions, or 'semantic waves' (Maton, 2013) that take place in a lesson to support and scaffold students in grasping the required knowledge (Barrett & McPhail, 2023).

This is a useful way to understand the integration of horizontal and vertical discourse as a pedagogic tool that scaffolds students' knowledge, but I would argue that horizontal discourse is still being positioned as inferior, with its main value ascribed to its ability to scaffold students' access to vertical discourse. Various authors resist this binary, however, arguing that education only becomes powerful

and emancipatory in the application of abstract, theoretical concepts to students' everyday contexts, allowing students to make connections between the theory and the social world they experience – i.e. what knowledge can actually do in addressing real-world problems in society (Wheelahan, 2010; 2023; McLean, Abbas & Ashwin, 2013a; 2013b; 2015; 2017; Young, 2008; Lotz-Sisitka, 2009; Barrett & McPhail, 2023; Shay, 2013; Hoadley, 2015). Wheelahan (2010) warns against reducing education solely to horizontal discourse as this locks students out of powerful knowledge (and Maton & Moore (2010) make a similar point), but powerful knowledge is described as the application of theoretical knowledge to contextually specific situations, such as is required in many professions – i.e. the interplay of horizontal and vertical discourse. Drawing on Bernstein's pedagogic rights, McLean, Abbas & Ashwin (2013a; 2015; 2017) go on to describe the ways in which disciplinary theoretical knowledge can be valuable and transformative for students in enabling them to question and critique what they see going on in the world around them, and to take action in improving it via political participation. This positioning may address horizontal discourse's supposed inferiority in much of the literature.

While it is true that many indigenous knowledges have been marginalised and devalued in higher education, particularly given their positioning as horizontal discourses, the more pressing issue is often appropriate recognition and attribution. Knowledge is socially produced in complex historical contexts (Wheelahan, 2023) and cannot always be understood in simple dichotomies. Disciplinary knowledge has developed through a multitude of influences, but it is often the case that only a few privileged voices receive the recognition for this knowledge production. In the area of decolonising science, for example, various conversations have taken place regarding mathematics and science concepts originating in India centuries ago being appropriated or changed by the West (Hoadley & Galant, 2019). Decolonisation is often thus approached, not as a radical disruption of disciplinary knowledge, but rather as an exercise in appropriate recognition and attribution (Hoadley & Galant, 2019), at least as an initial step (Adam, 2019). This relates to Young's (2008) distinction between powerful knowledge and knowledge of the powerful. Knowledge of the powerful reflects the

inequalities in society which determine which people get to produce, access and use knowledge (Bernstein, 1971; Young, 2008; Wheelahan, 2010; 2023; Young & Muller, 2013). Social elites are overrepresented in elite schools, universities, and professions where knowledge is produced and acquired (Wheelahan, 2010; 2023). Powerful knowledge, on the other hand, provides students with language and ways of thinking that they can use to engage in political, moral, and other kinds of debates that shape our society (Young, 2008). It is powerful because of what the knowledge can do and what intellectual power it gives to those who have access to it – the social and epistemic access to understand and navigate through one's world and to influence it in significant ways (Young, 2008; Wheelahan, 2010; 2023). Privileged groups in society often seek to restrict this access to powerful knowledge given the benefits it affords (Wheelahan, 2023).

2.5 Bernstein's knowledge structures and other ways of conceptualising disciplines

Thus far I have posited that epistemological access is access to powerful disciplinary knowledge. This study seeks to understand online and blended pedagogic practices across a variety of disciplines and their implications for students' epistemological access. It is thus useful to think about how we can classify, categorise, and conceptualise different disciplines.

Bernstein (2000) further unpacks the concept of vertical discourse by arguing that vertical discourse can be structured in two contrasting ways – hierarchically and horizontally. Hierarchical knowledge structures refer to coherent, systematically principled knowledge structures (Bernstein, 2000). This type of structure is built on general propositions and theories as its foundation. Students need to master these foundational concepts at lower levels, before they can progress, integrating more complex and abstract forms of knowledge as they explore the field (Bernstein, 2000; Hirst, 1974; Wheelahan, 2023). Hierarchical knowledge structures have a strong capacity to subsume knowledge at increasingly higher levels of theoretical synthesis and generality (Moore, 2013). Physics is a good example of a hierarchical knowledge structure in which it is imperative that students grasp foundational concepts before they can understand more complex concepts. Hoadley & Muller (2010) argue that subjects that fall within this type of knowledge structure are likely to place a great deal of emphasis on sequence, as students need to learn long sequences of hierarchically related concepts. This also ties in with Stodolsky & Grossman's (1995) identification of 'degree of sequence' as one of the important features used in characterising different subjects.

Horizontal knowledge structures, on the other hand, are made up of a number of discrete, specialised languages, developed independently rather than in a hierarchy, each with specialised modes of interrogation and criteria (Bernstein, 2000). Moore (2013) argues that these languages are not translatable as they make differing and opposing assumptions and feature different criteria as to what counts as valid questions or evidence within the discipline. Development within horizontal knowledge structures takes the form of the introduction of new parallel theories or 'languages' rather than

increasingly complex or synthesised hierarchies of knowledge built cumulatively and progressively (Bernstein, 2000; Moore, 2013; Young & Muller, 2013). Bolton (2006) gives the examples in art of classicism, romanticism, and realism, for example. While these languages fall within the same broad disciplinary field, they are not necessarily interrelated and do not necessarily refer to one another.

This distinction between hierarchical and horizontal knowledge structures is reflected in perennial dichotomies made between quantitative and qualitative forms of knowledge, and most often between Humanities and STEM. Maton (2014), for example, references the C P Snow lecture of 1959 in which he claimed that the intellectual life of Western society was being split into two polarised groups – science and the humanities. Becher & Trowler (2001) make the distinction between convergent and divergent disciplinary communities. Convergent communities display a sense of collectivity and mutual identity, as one would see in hierarchical knowledge structures which depend on mutual agreement of shared and foundational concepts, whereas divergent communities display schisms and ideological fragmentation, common in horizontal knowledge structures which feature incommensurable languages (Becher & Trowler, 2001). Pring (2004) points to a similar distinction often made in educational and other forms of research between quantitative and qualitative approaches – the former characterised by supposed objectivity, causal explanations, and general principles, and the latter characterised by claims of subjectivity, multiple realities, and interpretation. This distinction is also reflected in the common division between 'hard' and 'soft' disciplines, with STEM disciplines often being characterised as 'hard' given their quantitative methods and supposed objectivity, while humanities disciplines are often characterised as 'soft' given their qualitative methods and supposed subjectivity. Further distinctions can be made between 'pure' and 'applied' disciplines (Bernstein, 1975) - i.e. those disciplines that are more abstract and conceptual in contrast with those that are concerned with practical application geared towards the external and professional world. Becher & Trowler (2001) demonstrate how these terms apply in the Kolb-Biglan framework with examples:

Hard-pure: natural sciences, mathematics, physics

Hard-applied: science-based professions like engineering

Soft-pure: Humanities and the social sciences

Soft-applied: social professions, education, social work, law

Becher & Trowler (2001) do however acknowledge that these disciplinary boundaries are socially constituted, change over time and thus should also be seen not as extremes but as a continuum with some blurring of boundaries, with certain disciplines not fitting neatly into one category (Trowler, 2014).

Bernstein was also concerned with this distinction between pure and applied disciplines and used the terms singulars and regions to contrast these. Bernstein (2000) defined singulars as:

> *Singulars are knowledge structures whose creators have appropriated a space to give themselves a unique name, a specialised discrete discourse with its own intellectual field of texts, practices, rules of entry, examinations, licenses to practice, distribution of rewards and punishments (physics, chemistry, history, economics, psychology, etc.). Singulars are, on the whole, narcissistic, orientated to their own development, protected by strong boundaries and hierarchies.*
>
> (p. 74)

While regions were defined as:

> *Regions are constructed by recontextualising singulars into larger units which operate both in the intellectual field of disciplines and in the field of external practice. Regions are the interface between disciplines (singulars) and the technologies they make possible. Thus engineering, medicine, architecture are regions. Contemporary regions would be cognitive science, management, business studies, communications and media.*
>
> (p. 74)

Singulars construct clear boundaries between themselves, other singulars, and the everyday world, while also constructing specialised identities for their members via attainment of mastery, therefore displaying strong inner commitments (Muller & Young, 2014; Wheelahan & Moodie, 2021). Regions, on the other hand, must attend to internal commitments in the form of growing theoretical knowledge, as well as external commitments to the problems of the world and the technologies and solutions needed to solve them, therefore displaying weaker classification over boundaries between the discipline and the external world (Bernstein, 1990; Muller & Young, 2014). Regions also construct

specialised identities, often in the form of professional identities in which instrumental features, know-how, and skills are paramount (Muller & Young, 2014). While most of Bernstein's work was focussed on the school level, his theory on singulars and regions reflected an interest in knowledge and disciplinary structures in higher education, and particularly the push to regionalisation necessitated by the marketisation of higher education, and the need for disciplines to be more responsive to market demands, demonstrating their 'relevance' to various stakeholders (Bernstein, 1990; 2000; Becher & Trowler, 2001; Muller & Young, 2014; McLean, Abbas, & Ashwin, 2013b). Bernstein (2000) predicted that in future, higher-status universities would be more likely to have the privilege of focussing on singulars, whereas lower-status universities would need to offer regions in an effort to be more responsive to market demands (McLean, Abbas & Ashwin, 2013b; Ashwin, 2009; Cohen, 2021).

Bernstein (2000) offers a third principle for organising knowledge, particularly pertinent given the dominance of the labour market in our contemporary context, referred to as the generic mode, or genericism (Wheelahan, 2010). The emphasis is on generic skills and attributes (such as problem solving, teamwork, etc.) that are relevant to the labour market and knowledge is selected by its relevance to the world of work (Bernstein, 2000; Wheelahan, 2010; Wheelahan & Moodie, 2021; Kotzee, 2014). The generic mode is usually associated with vocational education or further education (FE) (Bernstein, 2000), although Wheelahan (2010) argues that genericism underpins the vocationalisation of curriculum in all sectors of education, providing the context in which both singulars and regions must increasingly operate. Various authors warn against generic skills-based, narrowly employment-focussed forms of university or tertiary education as they are meaningless without engagement with disciplinary knowledge (McLean, Abbas & Ashwin, 2013a; 2015; 2017; Wheelahan, 2007; 2010; Wheelahan & Moodie, 2021; Muller & Young, 2014). The narrow focus on the contextual needs of the labour market could, in Bernstein's terms, see higher education fall into context-dependent horizontal rather than abstract vertical discourse.

Muller & Young (2014) argue that the mastery of practical skills is dependent on conceptual knowledge, rather than replacing it, and that different disciplines require different proportions of both practical and conceptual knowledge based on the extent to which the disciplines are vocationally or academically oriented. Regardless of their status as pure or applied, soft or hard, specialised disciplinary knowledge forms the basis of university curricula and is differentiated from everyday, common-sense knowledge (horizontal discourse) (Muller & Young, 2014). Muller & Young (2014) argue, therefore, that higher education is defined in terms of specialised disciplinary knowledge to which all students are entitled epistemological access.

As mentioned, disciplinary boundaries are socially constituted and change over time, as do the value and significance placed on different disciplines as sources of powerful knowledge (Hirst, 1974; Trowler, 2014). Humanities disciplines, for example, went unquestioned as the primary curriculum of elite education and powerful knowledge up until the nineteenth and early twentieth century in many contexts (Muller & Young, 2014). Historically, scientific and technological developments generally took place outside the university but, in the present day, science disciplines have enjoyed a meteoric rise in stature and funding within universities, whereas Humanities disciplines are often portrayed as in decline and lack funding due to the inability to demonstrate 'relevance' to market needs (Maton, 2014; Muller & Young, 2014).

In Bernstein's terms social science disciplines are generally examples of horizontal knowledge structures and are also referred to as 'soft' disciplines. There are instances of both singulars and regions in the social sciences, with McLean, Abbas & Ashwin (2013b) in their work differentiating between 'pure' sociology as a singular, and regions that combine sociology and other areas to create market-driven subjects tied to a specific profession, such as social policy or criminology. It is interesting that there are attempts in the history of social science disciplines, such as psychology and sociology, to legitimise these as scientific disciplines via quantification of their methods (Becher & Trowler, 2001). Psychology, for example, could only be considered a "proper science" (p. 374) via the application of quantitative research methods (Sturm, 2006). Similarly, in educational research, Pring

(2004) details attempts to make education more quantifiable via observation schedules, or to use experiments to determine 'cause', in efforts to make it into a 'legitimate' science.

Maton (2004; 2014) extends Bernstein's work on knowledge structures by arguing that disciplines can be conceptualised in terms of both knowledge structures and *knower* structures, pointing to the importance of both epistemic and social relations in understanding disciplinary characteristics. While the theory does provide further useful conceptual tools for understanding disciplines and their characteristics, as well as the relative emphasis on social or epistemic relations varying by discipline, I do think it is at odds with academic development principles as I will expand on below.

As mentioned, Bernstein claimed that Humanities disciplines could generally be classified as horizontal knowledge structures, while science disciplines could be classified as hierarchical knowledge structures. Conversely, Maton (2014) argues that Humanities disciplines present a hierarchical knower structure, while science disciplines present a horizontal knower structure. In other words, social relations are positioned as important in Humanities disciplines. These disciplines are thought to instil in and expect from the ideal knower certain dispositions, sensibilities, personal attributes, and the right sort of 'gaze' (Maton, 2014). Humanities disciplines thus offer a hierarchical knower structure in that knowers are organised hierarchically in relation to the ideal knower at the pinnacle - typically and historically a man from a higher social class and private school background, often referred to as an English gentleman (Maton, 2014). Science, on the other hand, could be positioned as a horizontal knower structure characterised by democracy and meritocracy where social and biological backgrounds are irrelevant and one's formation as a competent 'knower' is independent of personal merits (Maton, 2014). Of course, academic literacies and academic development work would refute this characterisation (Rughubar-Reddy, 2014) as science disciplines still display educational inequalities, where social and educational backgrounds of students can significantly hinder their epistemological access to these disciplines and whether they are perceived as the right kind of 'knower'. I would also argue that Bernstein (1999) addresses social and epistemic relations but in a more nuanced manner, arguing that generally each knowledge structure tends to

either end of a continuum – more focus on knowledge itself (epistemic) or more focus on gaze (social). Thus, aspects like social and cultural capital and gaze are also significant in hierarchical knowledge structures, not solely horizontal knowledge structures (Bernstein, 1999). Ellery (2021) recommends employing these concepts to better understand the role of knowledge and knowers in various contexts, rather than preassigning disciplines to different categories.

2.6 Classification and framing

Bernstein proposed two fundamental concepts, intended to analyse the underlying structure, and embedded characteristics of the pedagogic device – namely classification and framing. Classification examines the relations between categories (Bernstein, 1971; 1975; 1990; 2000). The stronger the classification, the more clearly defined are the boundaries between categories, and the more things are kept separate and distinct - strong classification is thus generally associated with specialisation (Bernstein, 1971; 1975; 1990; 2000). The weaker the classification, the more fluid and fragile those boundaries are, allowing categories to interact to some extent (Bernstein, 1971; 1975; 1990; 2000).

Framing regulates how the discourse is to be transmitted and acquired in the pedagogic context (Moore, 2013a). Framing explores which agent – the transmitter or the acquirer (teacher or student) – holds the decision-making control over five elements, namely selection, sequencing, pacing, evaluative criteria, and hierarchical rules (Bernstein, 1971; 1975; 1990; 2000). The stronger the framing, the more explicit control the transmitter has over these five elements, whereas the weaker the framing, the more apparent control the acquirer has over these five elements (Bernstein, 1971; 1990; 2000). Framing thus provides a language to understand the pedagogical relationship of teacher and taught (Bernstein, 1971; 1975; 1990).

Selection refers to the kinds of content and knowledge chosen as part of the course. Sequencing is the order in which elements are accessed and knowledge is built. Pacing refers to time allocated to tasks and how strictly this is enforced. Evaluative criteria refer to the evaluation methods used to assess student learning. Lastly, hierarchical rules refer to the degree of openness and the aspects of hierarchy present in relationships between teacher and student.

These elements can be further understood in terms of regulative discourse (RD) and instructional discourse (ID). ID refers to the selection, sequencing, pacing and evaluative criteria of the knowledge (Bernstein, 2000). RD refers to the hierarchical rules at work in the pedagogic setting, specifically the hierarchical relationships between teacher and student (Bernstein, 1990; 2000). RD also encapsulates

the expectations regarding conduct, character, and manner in the pedagogic setting (Bernstein, 1990; 2000). Bernstein (1990; 2000) asserts that ID is always embedded in RD, and therefore RD always dominates.

The classification and framing in evidence in the pedagogic environment shapes the student's experience, as well as their ability to achieve the expected outcomes. Recognition rules refer to the ability of the student to recognise or identify what counts as valid knowledge in this context (Bernstein, 2000). Realisation rules refer to the student's ability to write, speak, or perform the appropriate discourse, allowing them to demonstrate valid acquisition of knowledge (Bernstein, 2000). To enable epistemological access, students need to acquire both recognition and realisation rules – recognising the discursive practices valued in that discipline, and then realising that through texts that are deemed legitimate within that discipline (Bernstein, 1990; McLean, Abbas & Ashwin, 2013a; 2013b; 2017).

Bernstein (1971; 1975) asserts that classification indicates the structure of curriculum, framing indicates the structure of pedagogy, and the structure of evaluation is a function of the strength of classification and framing. Hoadley & Muller (2010) explain how the concepts of 'power' and 'control' are relevant to discussions on classification and framing. These authors refer to classification as the organisational aspects of pedagogy and how power is activated, and framing as the interactional aspects of pedagogy, concerned with who has control over various elements within the pedagogical context (Hoadley & Muller, 2010). This distinction between power and control describes the making (power) and potential unmaking (control) of the social reproduction of inequality (Hoadley & Muller, 2010).

Bernstein's concepts have been applied in a variety of educational contexts to understand curriculum and pedagogy and their implications for equity. The applications of the concepts that inform this work will be detailed later in this chapter, as well as the study's own analytical framework.

2.7 Academic Development in South Africa

One of the key concerns of the academic development field in South Africa is supporting students' epistemological access in higher education. This aim is promoted through various academic development initiatives, including extended curriculum programmes (ECPs) - the research sites of this study. This section will detail the field of academic development in South Africa, its history and its current focus. It will then go on to discuss ECPs and other approaches to curriculum reform.

Academic development in South African higher education evolved out of a need to support a small number of black students who were enrolled in historically white universities in the 1980s and was initially referred to as 'academic support' (Samson et al., 2018; Pearce et al., 2015; Heydenrych & Case, 2016; Boughey, 2007; Luckett & Shay, 2020). The support offered, however, was usually characterised in terms of 'deficits' in relation to students and the focus was on assimilation, rather than valuing students' own cultural resources and backgrounds (Boughey, 2007; Samson et al., 2018). The focus was primarily on language support and more generic skills, rather than being embedded in mainstream disciplinary teaching and learning, reinforcing the marginal position of academic support in universities (Boughey, 2007; Samson et al., 2018).

After the dismantling of apartheid and the first democratic election in 1994, the ANC government turned their focus to reconstruction and development, viewing education as one of the key mechanisms to create social mobility for South Africans, and to stimulate the economic development of the country (Ensor, 2004a; Boughey, 2007). It quickly became evident that large-scale transformation of the higher education sector would require institution-level restructuring rather than add-on support for a minority of students in universities (Boughey, 2007). Academic support became academic development and was tasked with supporting students' epistemological access to universities (Boughey, 2007; Muller, 2014) and the social justice agenda of a post-apartheid government. Academic development is primarily concerned with enhancing the accessibility, quality, and appropriateness of higher education, and ensuring that equity is achieved via a higher education system that benefits all sectors of the population (Czerniewicz, 2004). The field has evolved to

encompass curriculum reform, institutional development, staff development, and educational technology (Boughey, 2007). The importance of its mandate in addressing inequality in SA HE via curriculum and pedagogy interventions is reflected in governmental focus and funding (Badat, 2010; DHET, 2020), although academic developers do still find themselves operating in liminal spaces in their institutions (Pallitt et al., 2022).

To better understand the nature of the academic development field in South Africa it is helpful to contrast it with academic development in the Global North. While in the Global North there is a narrower focus on staff training, pedagogic interventions, and professional standards that mostly steers clear of macro debates on the purpose and role of HE, in South Africa the focus on social justice, equity, and transformation is undeniable (Clegg, 2009b; Shay, 2015; Ashwin, 2022). Many who now work in the SA academic development field were involved in apartheid struggles, and have played a role in politics and policy as it relates to HE, thus infusing the field with a critical and transformative lens (Clegg, 2009b). The COVID pandemic and lockdowns saw academic development move from a marginal to a more central role in many institutions given the educational technology concerns that had already become part of the field (Pallitt et al., 2022). The demand for more technical 'training' rather than pedagogically-oriented support during this time (Pallitt et al., 2022), does, however, suggest that university staff see the educational technology facets of the academic development field as mainly technical rather than recognising how the tenets of criticality, equity, and transformation can also extend to the digital.

2.7.1 Extended Curriculum Programmes (ECPs)

With a greater focus on academic development in line with the objectives in South African higher education to improve access and equity on a mass scale, the field has grown to champion various initiatives, one of the most significant being Extended Curriculum Programmes (ECPs), or Extended Degree Programmes (EDPs) as they are often referred to (DHET, 2020). Currently, 23 of the 26 higher education institutions in South Africa receive designated redress funding from the government to offer academic development programmes – primarily the extended curriculum programmes (Ogude,

Meyer, Mwambakana & Mthethwa, 2019; Case, Marshall & Grayson, 2013; Czerniewicz, 2004; Boughey, 2005; 2007). Around 15% of the total national student population is enrolled in an ECP (Luckett & Shay, 2020).

ECPs are known best for the additional year of the degree programme, giving students more time to complete their programmes, and thus a lighter courseload, particularly in the first year (Luckett & Shay, 2020; Shay, & Mkhize, 2018). This focus on the first year addresses the articulation gap between high school and higher education, providing foundational support in disciplinary knowledge and academic literacies (Shay, 2015; Shay, & Mkhize, 2018). In addition to extra time, these programmes generally offer intensive pedagogic interventions and 'wrap-around' support, such as curriculum advice, mentoring, and psycho-social provision (Luckett & Shay, 2020), and a focus on forms of social capital (Shay, 2015).

There is a recognition of the need to provide additional support to students from disadvantaged backgrounds who have experienced poor schooling (Pearce et al., 2015; Ogude, Meyer, Mwambakana & Mthethwa, 2019) and to create the curriculum space needed to allow these talented but disadvantaged students the opportunity to achieve success in higher education (Sibiya & Mahlanze, 2018). There is a general consensus that these programmes have allowed students who would not normally gain access to higher education in terms of traditional entrance criteria the opportunity to succeed, and have supported educational outcomes, but there is also an acknowledgement that there is still much work to be done (Shay, Wolff & Clarence-Fincham, 2016a; Heydenrych & Case, 2016; Sibiya & Mahlanze, 2018; Pearce et al., 2015; van Schalkwyk, 2007).

ECPs allow alternative paths to access, and while many do support students to succeed in their first year, support is often lacking further along in the degree, and graduation rates are still concerningly low (Shay, Wolff, & Clarence-Fincham, 2016a; Shay, & Mkhize, 2018). Many argue for the importance of extending academic support beyond the first year rather than focussing on a foundational year, and truly extended four-year programmes perform better than those which are confined solely to

foundation provision (Bangeni & Greenbaum, 2019; Pearce et al., 2015; Shay, Wolff & Clarence-Fincham, 2016a; Shay, Wolff & Clarence-Fincham, 2016b).

2.7.2 Curriculum reform

While ECPs have made a significant contribution to widening participation in SA HE, there is an emerging global argument for 'academic development in the mainstream' - i.e. embedding academic development into all curriculum and pedagogy rather than targeting specialised provision at a disadvantaged, 'at risk' group (Heydenrych & Case, 2016; Bangeni & Greenbaum, 2019; Lubbe, 2017; van Schalkwyk, 2007; Shay, Wolff & Clarence-Fincham, 2016a; Eybers, 2015; Case, Marshall & Grayson, 2013; Warren, 2002; Paxton & Frith, 2014; Haggis, 2006; Smit, 2012; Morrow, 2009). This is based on the view that all students can benefit from curricula and pedagogic approaches that make complex disciplinary practices and literacies explicit (Paxton & Frith, 2014; Warren, 2002). Studies have found that this integrated approach is more effective than separate forms of provision in enhancing student retention, progress and achievement (Warren, 2002).

In line with this view, the Council on Higher Education offered a curriculum reform proposal in 2013 arguing for the dissolution of separate three-year mainstream programmes and four-year extended programmes, making all undergraduate programmes four years with flexible pathways (Lubbe, 2017; Shay, Wolff & Clarence-Fincham, 2016b; Luckett & Shay, 2020; Shay, 2015). Only about one-third of students in South Africa complete their undergraduate degrees in regulation time in any case (Case, Marshall & Grayson, 2013), and this results in many students being unable to follow the programme as it was originally designed and intended – the resultant lack of continuity and coherence in the programme therefore further impeding learning (Lubbe, 2017; Case, Marshall & Grayson, 2013). As Shay (2015) and Shay, Wolff & Clarence-Fincham (2016a) argue, the transition from high school to university is a significant one, but there are also other important 'epistemic transitions' throughout the undergraduate curriculum, such as the transition from basic sciences to applied sciences in an engineering degree, that require academic support beyond foundational provision. The proposed flexible curriculum structure would allow for adaptability in starting points and progression, allowing

students to progress at their own pace, with options for the 'well-prepared' student to fast-track their studies (Lubbe, 2017). Aploon-Zokufa (2013) uses the concept of opportunity to learn (OTL), which measures what content students are exposed to in the learning environment, to explain that when pacing is slow, OTL is decreased for students who grasp content faster, thus technology may afford students the ability to progress and engage with content at their own pace, without impacting other students' progress.

The Ministry of Higher Education and Training rejected the proposal and advised that more students be placed on ECPs (Luckett & Shay, 2020). Although the proposal was not accepted, the above discussion highlights the value of flexibility in pace and how it could support epistemological access. It is important, however, to acknowledge the challenges in teaching large groups of diverse students in higher education (Lubbe, 2017). Online or blended learning may be strategies well-suited to the differentials in pace of progression discussed above, allowing students more autonomy over their pace of learning, with minimal impact on the progress of fellow students.

2.8 Academic Literacy

Theoretical work on academic literacies is central to the field of academic development as this field is concerned with fostering these literacies that are integral to students' epistemological access at university. This section will describe academic literacies and the challenges and opportunities of fostering these within the South African context.

Academic literacy is a broad term used to refer to the complex and varied academic and social practices that are valued in disciplinary discourse communities in the university, even though they are often not made explicit. Critical work in the academic literacies field often focusses on how the expected ways of engaging with academic knowledge in higher education exclude or disadvantage students from educationally marginalised backgrounds (Baker et al., 2019). When lecturers describe the impediments many students face in adapting to higher education, they point to various aspects of academic literacy, namely – the inability to read and write in a critical and analytic manner, to discern between fact and opinion or commonsense understandings (Boughey, 2005), to recognise what is deemed evidence for an argument, and to grasp the discourse of a discipline (van Schalkwyk, 2007; Eybers, 2015; Kapp & Bangeni, 2009; Northedge, 2003b; Boughey, 2005).

A key issue here is that the dysfunctional schooling that most young South Africans experience can hinder their epistemological access to higher education. Many low-resourced and print-impoverished South African classrooms are characterised by a teacher-centred, often authoritarian culture, oral rather than literate modes of communication, a slow pace of working with low cognitive loads, passive, rote learning, and a focus on memorisation in a test-driven, superficial manner (Ellery, 2017a; 2017b; 2021; Kapp et al., 2014; Kapp & Bangeni, 2009; Boughey, 2000; Liccardo et al., 2015; Slonimsky & Shalem, 2006). The pedagogic practices in these classrooms make the transition to higher education very difficult as the university environment is characterised by high pace, high volume, and cognitive load, where rote learning and memorisation are not sufficient, and students are expected to demonstrate autonomy and self-sufficiency (Ellery, 2017a; 2017b; Kapp et al., 2014; Kapp & Bangeni, 2020). While the purported aim of schooling is to introduce all students to powerful

knowledge, a narrow focus on evaluation and accreditation in schooling restricts knowledge to contextually specific discourse and hinders student understanding (Puttick, 2015a; Kapp et al., 2014; Ormond, 2017).

Different disciplines have their own preferred methods for constructing and communicating knowledge, and their own 'disciplinary languages'. There is no single academic discourse community with unified standards and expectations, but rather every discipline has its own rules, conventions, values, practices, and culture (Durkin & Main, 2002; Ellery, 2017a; 2017b; Bangeni & Greenbaum, 2019; Young & Muller, 2013; Hirst, 1974; Morrow, 2009; Barnett, 2009; Becher & Trowler, 2001).

Two themes arise repeatedly in the literature on academic literacies and supporting students' development in this regard – making academic literacy practices explicit and embedding or integrating academic literacy practices into disciplinary curricula and teaching.

Many argue for an embedded or integrated approach in which academic literacy practices are integrated into mainstream disciplinary teaching and assessments (Warren, 2002; Wingate, 2006; van Schalkwyk, 2007; Turner et al., 2017; Shay, Wolff & Clarence-Fincham, 2016b; Ensor, 2004a; Eybers, 2015; Case, Marshall & Grayson, 2013; Paxton & Frith, 2014; Haggis, 2006; Smit, 2012; Boughey, 2005). A socio-cultural understanding of discourse and literacy emphasizes the need to socialise students into a disciplinary academic discourse or knowledge community through participation so that they take on a disciplinary identity and think and behave in socially accepted ways within that discipline (Gee, 1990; Northedge, 2003b; Bangeni & Greenbaum, 2019; Eybers, 2015; Boughey, 2000, 2002; Kapp & Bangeni, 2009; Lea & Street, 1998; Barnett, 2009). Those students whose value systems are already closely aligned with these academic discourse communities (e.g. through the academic and social capital gained through their home or school environment) will require fewer adjustments to adapt (Bernstein, 1975; 1990; Leask, 2006). Ideally young people should have two sites of acquisition of the academic curriculum – the school and the home – and often poor and marginalised students experience inadequate learning environments in both (Bernstein, 1990). What is implicitly

acquired and understood by students whose primary discourse closely mirrors the institution's needs to be deliberately and explicitly taught to 'underprepared' students (van Schalkwyk, 2007). Students' ability to participate meaningfully in new disciplinary discourses is often impeded by pedagogic practices that lack explicitness (Davis, 2015; Boughey, 2005; Liccardo et al., 2015; Slonimsky & Shalem, 2006) and clarity about how processes of knowledge construction in the discipline are connected to language, literacy, and numeracy practices (Kapp & Bangeni, 2020). In their teaching, academics need to make the rules and conventions of academic ways of thinking, valuing, speaking, reading, and writing in that discipline explicit within the mainstream curriculum (Boughey, 2000; 2005; Davis, 2015), they need to provide guidance on what constitutes plagiarism and how to avoid it (Leask, 2006), and overall, there needs to be a mutual understanding of what constitutes success and failure within the academic environment (Sadler & Erasmus, 2005).

Presenting a potential obstacle to this more transparent and integrated approach to academic literacy is the ongoing assertion that this approach will equate to the lowering of standards, 'dumbing down', or spoon-feeding. A 'deficit' discourse in relation to students (Warren, 2002; Paxton & Frith, 2014; Haggis, 2006, Smit, 2012; García & Guerra, 2004) attributes academic difficulties to students' internal shortcomings, and conveniently sidesteps the investigation and critique of the higher education institution itself and how it may contribute to the exclusion of certain students (Smit, 2012; García & Guerra, 2004; Shay, 2015; Taylor, 2018) - issues highlighted in the Fallist movements of 2015 & 2016 (Luckett & Shay, 2020; Nomdo et al., 2021). Transformation of institutional culture is closely tied to issues of educational inequalities and marginalisation (Badat, 2010). Haggis (2006) suggests moving from asking "what is wrong with this student" to "what are the features of the curriculum, or of processes of interaction around the curriculum, which are preventing some students from being able to access this subject?" (Haggis, 2006: 526). Bernstein's (1971; 1975) writings reflect points raised in South African academic literacies work, arguing that educational approaches often focus on supposed deficiencies in communities, families, and children – distracting attention from the systematic

deficiencies of the educational system. Bernstein's work similarly emphasizes the importance of explicit and accessible pedagogic practices in overcoming educational inequalities.

An institutional culture that expects assimilation to and perpetuation of a dominant culture (Smit, 2012) can marginalise or pathologise difference, presenting students' home discourses as a problem to be fixed, without recognising or valuing the resources that young people can bring to higher education from their social backgrounds (García & Guerra, 2004; Marshall & Case, 2010; Kapp & Bangeni, 2009; 2020; Paxton & Frith, 2014; van Schalkwyk, Bitzer & van der Walt, 2009; Nomdo, 2017; Arend et al., 2017; Boughey, 2007; Nomdo et al., 2021). In fact, experiences of disadvantage that force students to develop resilience, initiative, and leadership can often act as a resource in HE, in contrast to the dominant deficit view (Marshall & Case, 2010; Kapp & Bangeni, 2020; Kapp et al, 2014; Czerniewicz & Brown, 2014). While disadvantages in their home and schooling backgrounds do present obstacles to success, these are not necessarily overdetermining, with individual lives being both constrained and agentic, demonstrating a unique interplay between structure and agency (Kapp et al., 2014; Kapp & Bangeni, 2020). In addition, students' experiences of working-class township and rural life can constitute an important resource in contributing to new knowledge (Kapp & Bangeni, 2009), particularly given the curriculum decolonisation agenda with which many universities are now grappling. This is in line with Bernstein's (1971) arguments that educational content should more closely reflect the experiences of marginalised students, rather than devaluing these experiences.

While in the UK and other contexts the focus may be on supporting 'non-traditional' students to assimilate into the dominant and established practices of the university (O'Sullivan, Bird, Robson & Winters, 2019; O'Sullivan, Robson & Winters, 2019), the South African higher education context requires a more fundamental shift in approach. References to 'non-traditional' students are inappropriate when the average young person in South Africa is from a disadvantaged background, has likely experienced dysfunctional schooling, is often the first in their family, or even their community, to attend university, and speaks English as a second or third language. A diverse and disadvantaged student body is thus the norm, and the relevant academic literacy practices should be

integrated into the curriculum, and into teaching, learning, and assessment to support these students.

2.9 Educational technology in South African Higher Education

The highly-anticipated role of ICTs in improving inclusivity and addressing inequalities in higher education through more flexible delivery has been noted in South African governmental policy documents as far back as 2001 (Ng'ambi et al., 2016; Jaffer, Ng'ambi & Czerniewicz, 2007; Morrow, 2009). Flexibility in provision is important for a diverse body of students who may have work and childcare responsibilities which they need to balance with their studies, or who live in remote locations that make residential participation unfeasible (Morrow, 2009; Lembani et al., 2019; Murphy, 2020). There is a recognition, however, of severe digital inequalities among students and the need to focus on digital literacy support for students to engage in pedagogy through technology, and not solely on infrastructure and technology itself (Ng'ambi et al., 2016).

While universities across the world had to focus energy and resources on educational technology strategies to address the COVID pandemic and lockdowns, this was not the first time that South African higher education had grappled with a swift transition to emergency remote teaching and learning. The Rhodes Must Fall and Fees Must Fall student protests in 2015 and 2016, along with the subsequent campus shutdowns necessitated emergency online interventions. This shift to online education quickly became a controversial and politicised one, with many students and academics arguing that not only did it negate the protestors' efforts to halt teaching and learning on these campuses, but it also equated to academic exclusion for many marginalised students who only had access to devices and connectivity on campus, and who had not developed the digital literacies needed to navigate online learning (Czerniewicz & Rother, 2018; Czerniewicz, Trotter & Haupt, 2019; Swartz, Gachago & Belford, 2018; Trotter et al., 2022). Many universities had to balance the demands of the protestors with the needs of the rest of their students and academics, most of whom wished to carry on with the academic year, despite threats to their safety from some protestors (Czerniewicz, Trotter & Haupt, 2019; Swartz, Gachago & Belford, 2018).

Similarly in 2020, as a result of COVID lockdowns, the swift move to online teaching and learning equated to academic exclusion for many students who only have access to devices and connectivity on campus and meant that these already marginalised students often faced an additional dimension of inequality. In addition to the inequalities in devices and connectivity, many academics pointed to students' schooling backgrounds, characterised by little or no exposure to ICT and a focus on rote learning, and the resultant lack of digital literacies as some of the major challenges in facilitating a shift to online education (Czerniewicz et al., 2020). The independence, autonomy, and opportunity for self-directed learning in online education are often positioned as strong affordances. In the South African higher education context, however, where students are already struggling to shift away from rote learning to the expectation of autonomy and independence at the university, online education can be particularly challenging. It is important to consider how students can be better supported in this transition.

It is necessary to make the distinction between emergency remote teaching and learning, and high-quality online and blended pedagogic approaches. Many of the instances of emergency remote transition to online education described above cannot be considered blended learning, as academics were often "just putting stuff online" - in other words, purely uploading existing contact pedagogical content, rather than engaging in pedagogically rigorous activities to transform or create teaching and learning activities specifically for online learning environments (Czerniewicz, Trotter & Haupt, 2019: 11). It is important to note that designing online pedagogical activities and content does not simply involve learning a new type of software or programme but requires a reconceptualisation of teaching and learning in a new learning environment, and it is important that academics receive the necessary support in this regard (Czerniewicz, Trotter & Haupt, 2019: 11; Fawns, 2022; Trotter et al., 2022; Pallitt & Kramm, 2022), particularly regarding the implications of blended learning for epistemological access.

As lockdowns eased and contact teaching and learning were permitted again, most universities decided on an intentionally blended approach going forward, rather than simply reverting to fully

contact, pre-COVID approaches and losing all the work and effort that had been put into developing institutions' educational technology capacity. There is some definitional ambiguity regarding the term 'blended learning', but it quite simply refers to the integration of online and contact/in-person pedagogies (Hrastinski, 2019; Dziuban et al., 2018; Moskal & Picciano, 2021; Anderson et al., 2021; Office for Students, 2022). Strict binaries in relation to online and contact pedagogies have become less relevant in our contemporary context of socially embedded technology use in education (Fawns, 2022; Morrow, 2009; Dziuban et al., 2018), but the term blended learning is useful in specifying an intentional and purposeful integration of online and contact elements in the interests of improving pedagogy overall (Hrastinski, 2019; Graham, 2021; Renfrow, 2021; Bradford & Norberg, 2021; Stevens, 2021; Vaughan, 2021). It is also useful to articulate the diverse features of blended learning environments – e.g. the use of synchronous or asynchronous methods, flipped classroom approaches, etc. (Hrastinski, 2019) - with the acknowledgement that there is a broad range of manifestations of blended learning. While the terms blended learning and hybrid learning are often used interchangeably (Hrastinski, 2019), hybrid learning generally refers to the delivery of content in both contact and online modes simultaneously (Office for Students, 2022), with some of the cohort being in the physical space and others online. Blended learning, on the other hand, refers to the integration of both online and contact pedagogies experienced consistently across the cohort. The case study data in this thesis reflects instances of blended learning (and in one case fully online learning), and thus hybrid learning is not a key focus of the research.

Benefits that are generally associated with blended learning include flexibility, and greater self-regulation and self-directed learning, with students taking more ownership over their learning (Dziuban et al., 2018; Bradford & Norberg, 2021; Anderson et al., 2021; Rice & Stevens, 2021; Vaughan, 2021; Owston et al., 2021; Ssentamu et al., 2020). Empirical evidence suggests that blended learning improves student access, success, retention, and satisfaction (Dziuban et al., 2018; Anderson et al., 2021; Owston et al., 2021). In their study of blended learning in a first-year accounting class at a South African university, Winfield & Whitelaw (2025) found that not only did blended learning

contribute to a 7% increase in grades compared to in person teaching, the positive effects of blended learning were more acute for ECP students than for mainstream students. A significant factor in this study was the flexibility in pace afforded to students through blended learning (Winfield & Whitelaw, 2025). The study makes a compelling case for the value of blended learning in SA HE, particularly for students who have experienced disparities in educational capital (Winfield & Whitelaw, 2025).

There are calls for more research on blended learning in practice, particularly the pedagogical aspects, and how different manifestations of blended learning could support student access, success, equity, and inclusion across different disciplinary contexts (Hrastinski, 2019; Dziuban et al., 2018; Graham, 2021; Dziuban & Picciano, 2021; Kahn & Hindman, 2021; Owston et al., 2021; Office for Students, 2022). This is particularly needed in the South African context where there is currently a paucity of research investigating blended learning in South African universities and the implications for student success (Winfield & Whitelaw, 2025). This study aims to address these gaps in the literature.

Given the negative and traumatic associations with emergency remote teaching and learning during both the Fallist student protests and the COVID lockdowns, the historic conflation of poor-quality distance education and online education (Badat, 2005), and the fact that some students' and staff's sole exposure to online education has been via emergency remote teaching and learning in times of crisis and uncertainty, it is no wonder that the integration of online education in higher education may be confronted with some resistance and hesitation. Lack of adequate training for higher education practitioners in appropriate use of technology to improve learning outcomes has presented a significant obstacle to the uptake of educational technology (Ng'ambi et al., 2016; Czerniewicz, Trotter & Haupt, 2019; Czerniewicz et al., 2020).

Rather than solely viewing online education in deficit terms as an inferior version of contact education (Bayne et al., 2020), recent events have provided an opportunity for both academics and students to explore the affordances of online education. Students, for example, appreciated the

ability to pause, re-watch, or go back in recorded lectures of tricky concepts, something not possible in face-to-face lectures (Czerniewicz et al., 2020). Flexibility in pace is certainly a key affordance of online education and enables differentials in pace of progression for different students, while not disrupting the pace of learning for an entire class. Students also found that the online discussion forums provided a helpful asynchronous communication channel with lecturers and other students, often providing more interaction than a contact class (Czerniewicz et al., 2020; Jaffer, Ng'ambi & Czerniewicz, 2007).

There is now an opportunity to consider a future, supported in part by technology, where education is more accessible, affordable, and flexible (Eringfeld, 2021), and it is important to consider the equity and social justice dimensions of online and blended learning in South African HE. Through flexible and equitable forms of provision (Czerniewicz et al., 2020), online education has the potential to address some of South African higher education's key challenges, such as widening participation, and supporting students' epistemological access to the university. This requires an approach that is both high-quality and feasible given the current challenges of the higher education context in South Africa.

While historically issues around access and success in higher education were the purview of academic development, and considerations around online education and digital inequalities fell under the banner of educational technology, recent events have highlighted the interconnectedness of these areas of interest (Czerniewicz et al., 2020). This study, set at the intersection of educational technology, widening participation, and academic development explores online and blended pedagogic practices and the implications for access and success in higher education. Recent events have highlighted both promising opportunities related to educational technology, but also digital inequalities that persist in South Africa, and the challenges with digital literacy development that compound marginalised students' educational inequalities (Czerniewicz et al., 2020; Brown & Licker, 2003). Given the prevalence of technology in higher education, digital as well as academic literacies have become imperative in supporting epistemological access. The following sections will explore

digital inequalities and digital literacies, particularly the complex and multifaceted nature of these in the South African context.

2.10 Digital inequality and digital literacy

Many authors dispute the myth of the 'digital native' - the assumption that young people are inherently highly competent and capable when it comes to anything digital, including online education by virtue of their youth (Williamson, Eynon & Potter, 2020; Littlejohn, Beetham, & McGill, 2012; Greene, Yu & Copeland, 2014; Wilkin, Davies & Eynon, 2017; Facer & Furlong, 2001). In fact, there is little evidence that young people are more skilled in finding, vetting, and utilising online content (Helsper & Eynon, 2010; Greene, Yu & Copeland, 2014; Li & Ranieri, 2013). This myth neglects widespread digital inequality, and the complex nature of digital literacy.

There is a recognition in the literature that it is important to move beyond a simplistic conceptualisation of the digital divide, and the binary distinctions of access/no access or user/non-user when discussing digital inequality (Robinson, 2009; Wilkin, Davies & Eynon, 2017; Hargittai & Hsieh, 2013; Eubanks, 2011; DiMaggio, Hargittai, Celeste & Shafer, 2004; Li & Ranieri, 2013; Gorski, 2009; Gunkel, 2003; Katz & Gonzalez, 2016). Courtois & Verdegem (2016) suggest rather exploring gradations in digital inclusion, while Gunkel (2003) refers to a complex continuum of access to technology.

In general, digital inequalities tend to closely reflect wider social inequalities (Robinson, 2009; Katz & Gonzalez, 2016; Collin & Brotcorne, 2019). Rather than acting as a great equaliser, the internet has exacerbated existing inequalities in many contexts (Hargittai & Hsieh, 2013; Katz & Gonzalez, 2016; Pearce & Rice, 2013; Gorski, 2009; van Deursen & van Dijk, 2015; Gunkel, 2003). Lack of appropriate access to the internet and relevant technology is one of the most pressing forms of social exclusion in our modern society (Gorski, 2009; Facer & Furlong, 2001; Katz & Gonzalez, 2016; Jung, Qiu & Kim, 2001).

Models offered by DiMaggio, Hargittai, Celeste & Shafer (2004), van Deursen & van Dijk (2015), and Jung, Qiu & Kim (2001), among others, present useful frameworks for understanding the nuance and complexity of digital inequality, but van Deursen & van Dijk (2015) point to gaps in this field,

particularly regarding qualitative research into these dimensions of access in low/middle income country contexts. This is a helpful prompt for the current research that utilises a qualitative approach to explore educational technology use in the South African context.

Aspects which shape digital inequalities in the South African context include infrastructure challenges (both technological but also related to physical space, furniture, and electricity), the urban/rural divide, educators' lack of access to and competence with technology, and insufficient training in the use of technology in pedagogy (Cantrell & Visser, 2011; Bekesas, Mader & Riegel, 2016; Lembani et al., 2019). Cantrell & Visser (2011) indicate that increased material access to computers does not automatically result in more sophisticated use, therefore countering a technological determinist view, and necessitating a focus on literacy, language, and education.

Students with higher quality access to the internet and greater autonomy of use tend to utilise the internet for a wider range of purposes, and for more capital-enhancing activities (Williamson, Eynon & Potter, 2020; Njenga, 2018; Littlejohn, Beetham, & McGill, 2012; Wilkin, Davies & Eynon, 2017; Zhao, Lu, Huang & Wang, 2010; Pearce & Rice, 2013). Disadvantaged students tend to use the internet for narrow, task-oriented, or goal-led purposes, which can impede the development of their digital literacies, and therefore hinder their epistemological access to online and blended learning environments in higher education (Robinson, 2009; Wilkin, Davies & Eynon, 2017; Facer & Furlong, 2001).

The very early conceptions of the digital divide, and its potential solutions, reflected a technological determinism – the idea that simply introducing technology would automatically address and overcome existing inequalities. Several authors warn against assuming a transformational impact of technology on education simply by virtue of it being available and point to a recognition of the wider societal context in which the technology is situated (Avgerou, 2010; Wilkin, Davies & Eynon, 2017; Jung, Qiu & Kim, 2001).

Much of the current literature discourages the conceptualisation of digital literacy as a set of discrete functional skills and rather emphasizes digital literacy as an embedded, situated social, cultural, and knowledge practice (Littlejohn, Beetham, & McGill, 2012; Njenga, 2018; Buckingham, 2015; Mayisela, Hodgkinson-Williams, & Brown, 2019; Arend et al., 2017). As is the case with academic literacy, most authors suggest that the best way to equip students with the necessary digital literacies to navigate an increasingly digitized world is to embed these digital literacy practices into existing, discipline-specific teaching and learning practices, and authentic assessment tasks, rather than teaching them as generic skills (Buckingham, 2015; Njenga, 2018; Ryberg & Georgsen, 2010; Littlejohn, Beetham, & McGill, 2012; Li & Ranieri, 2013; Mayisela, Hodgkinson-Williams & Brown, 2019; Ryberg & Georgsen, 2010; van Deursen & van Dijk, 2015; Brown & Mayisela, 2015). Students' development of digital literacies and how they use technology will often be shaped by the nature and requirements of disciplinary knowledge (van Deursen & van Dijk, 2015; Ryberg & Georgsen, 2010; Mayisela, Hodgkinson-Williams, & Brown, 2019). Valuable digital literacies in higher education include the ability to search for and critically evaluate the credibility of information online (Hargittai & Hsieh, 2013; Buckingham, 2015; Robinson, 2009), to synthesise and communicate information, to produce, curate, and manage online resources, to network with others (Brown & Mayisela, 2015; Mayisela, Hodgkinson-Williams & Brown, 2019), and to employ new ways of thinking, such as computational, data-based, and design thinking (Beetham, 2021).

There is a need to understand the local realities of technology use in the South African environment and how digital inequalities and literacies take shape (Lembani et al., 2019; Pallitt & Kramm, 2022). A few studies have applied digital inequality frameworks to low/middle income countries and countries in the Global South and, interestingly, many of these studies emphasize the importance of mobile in these contexts (Bekesas, Mader & Riegel, 2016; Lopez-Sintas, Lamberti & Sukphan, 2020). Lopez-Sintas, Lamberti & Sukphan's (2020) research suggests that a different conceptualisation of digital inequality is required when applying digital inequality frameworks (often originating from high-income countries) to low/middle income settings, especially in our understanding of mobile access

and use. They refute implications in the literature that position mobile use as inferior to desktop or multi-screen use and argue that mobile can be used in sophisticated ways to gain economic, material, or cultural benefits (Lopez-Sintas, Lamberti & Sukphan, 2020). Indeed, the majority of South Africans (around 60%) use mobile phones to access the internet ("How South Africans Access the Internet...", 2016) and this use is fair and equivalent among students, despite experiencing digital inequalities in other respects (Czerniewicz et al., 2009; Brown & Czerniewicz, 2010). Many students engage in learning via their mobile devices, and this was evident particularly during ERTL when many students did not have access to laptop or desktop computers (Pallitt & Kramm, 2022). This thesis explores the nuanced nature of this internet use in a South African context, avoiding simple binaries or deficit thinking.

The next section discusses learning design models and approaches that are often employed when reconceptualizing pedagogy in online and blended learning environments, and stresses social justice concerns in this regard.

2.11 Online learning design

There are a number of recommended approaches one can draw on when engaging in online learning design. Koehler, Mishra & Yahya (2005) emphasize the importance of Technological Pedagogical Content Knowledge (TPCK), for example, while Churches (2009) recommends digital additions to Bloom's Revised Taxonomy. A central argument in this thesis is that there is no one-size-fits-all approach to online and blended learning, and the unique pedagogical requirements of each discipline, as well as the context in which students and staff operate need to be considered when designing online and blended learning.

Another important aspect to consider is that the features of different learning environments may take the form of affordances or limitations depending on the disciplinary and student context. Certain features of online and blended learning environments may present as affordances that support the realisation of educational goals or address educational challenges, while in other contexts those features may impede the realisation of educational goals or may not be feasible given the educational challenges, and therefore present as limitations.

Bower (2008) presents a useful online learning design process called affordance analysis - involving the identification of educational goals, the proposal of suitable tasks and assessments to satisfy those goals, the identification of the necessary affordances to enable those tasks and assessments, and a determination of the affordances of the available learning technologies (Bower, 2008). Bower's (2008) simultaneous consideration of technological affordances and pedagogical requirements is helpful in a context like South Africa where affordability, infrastructure, connectivity, and literacies challenges may make certain educational technology interventions unfeasible.

Oliver (2011; 2016a) and Selwyn (2010) do, however, warn against deterministic and essentialist conceptualisations of affordances which could over-play ways in which technology design *causes* user behaviours (Bayne et al., 2020), rather than acknowledging the complex and agentic ways in which people negotiate technology use in different contexts. Indeed, conceptualisations of technology in

the field of learning technology are often undertheorised, and rely on commonsense assumptions, rather than critical analysis (Oliver, 2011; 2016a; Selwyn, 2010; Koehler, Mishra & Yahya, 2005; Eynon, 2017, Fawns, 2022; Czerniewicz, 2008).

Like Bernstein, Selwyn (2010) recognises the socially embedded nature of pedagogical practices and recommends research agendas that seek to understand the often constrained and inequitable use of technology in real world educational settings, rather than speculating on future or best-case examples. Also, like Bernstein, Selwyn (2010) thus argues for a social justice lens when analysing technology use in education and calls for a focus on making this use fairer, not simply more effective.

Given these considerations, this study does not focus on a specific type of technological device, software programme, or learning environment and its causal impact on learning, but rather on how academics and students navigate pedagogic practices and other complex social and contextual considerations within online and blended learning environments. While the focus of the study is primarily at the micro-level of pedagogic practice, the macro-level is also examined, as per Selwyn's (2010) recommendation, to foster rich contextual analysis. The thesis seeks to better understand online and blended pedagogic practices that are inclusive, equitable, and feasible within an environment of complex digital and other inequalities, rather than presenting a future-oriented, best-case ideal.

2.11.1 Universal design for learning (UDL)

As this thesis is concerned with social justice and inclusivity, it is helpful to explore approaches to online learning design that centre these considerations, and universal design for learning is helpful in this regard. Universal design for learning (UDL), introduced by Anne Meyer and David Rose, emerged out of a broader movement for universal design, which began with designing public spaces and architecture that were more accessible for people with disabilities, but ended up benefitting everyone, making these spaces more functional for all users (Dell, Dell & Blackwell, 2015; Stentiford

& Koutsouris, 2020.). Similarly, while universal design for learning was initially focussed on students with disabilities, it is an approach to learning design that can benefit all students in accessing high quality education (Dalton et al., 2019; Dell, Dell & Blackwell, 2015; Stentiford & Koutsouris, 2020.).

UDL is concerned with providing content, learning, and assessment in a variety of formats to cater to all students, their strengths, interests, and preferences and to ensure equity in access to education (Dalton et al., 2019; Dell, Dell & Blackwell, 2015). The aim is to cater to the broadest diversity in student populations, thus seeking to eliminate the need to retrofit teaching practices with specialised accommodations (Dalton et al., 2019). UDL rests on three principles for effective course design, outlining multiple and flexible modes of presentation, expression, and engagement. The first principle relates to presentation and recommends providing students with various ways of accessing and engaging with content, while the second, related to action and expression, argues for providing students with various opportunities for demonstrating their learning and, the third, relating to engagement and interaction, recommends that the lecturer taps into students' interests and motivations in order to challenge them and encourage their self-regulation (Dell, Dell & Blackwell, 2015). In addition to multiple options and flexibility, another primary aim of UDL is to make all students expert learners (experts in their own learning process) by removing any barriers in the learning process (Rose & Gravel, 2009; McKenzie & Karisa, 2021). Expert learners are purposeful and motivated, resourceful and knowledgeable, and strategic and goal-directed (CAST, 2017). Gravel (2018) argues that the UDL guidelines should place more emphasis on discipline-specific expert learners, rather than a generic characterisation of an expert learners, by exploring the disciplinary nature of learning.

As discussed, this thesis is set within the context of widening participation in South African HE and has recognized the importance of social justice approaches in addressing long-standing educational inequalities. While widening participation is concerned with both formal access and epistemological access, the thesis focuses on the latter, and hones in on the ways in which epistemological access is mediated in online and blended learning environments. UDL provides a helpful approach to exploring

online learning design in contexts of diversity which emphasize social justice. This approach is well-suited to the South African higher education space which is characterised by diversity in terms of student background, educational capital, and preparedness. Again, while certain practices may be catered to disabled students in the first instance, such as providing transcripts and closed captions for videos, or using built-in headers to indicate hierarchies of content, these practices may be equally valuable for educationally disadvantaged students and students who speak English as an additional language. These principles could be useful in enabling epistemological access for all students to powerful knowledge.

Leibowitz & Bozalek (2015) make explicit the link between UDL, widening participation, social justice, and epistemological access in the South African context when they argue that UDL provides a helpful approach for reconceptualising ECP offerings from a social justice perspective. Like others in the academic development conversation (Lubbe, 2017; van Schalkwyk, 2007; Shay, Wolff & Clarence-Fincham, 2016a; 2016b; Eybers, 2015; Case, Marshall & Grayson, 2013), Leibowitz & Bozalek (2015) emphasize the importance of academic support that extends beyond foundational provision and is integrated into students' overall academic journey. They argue that ECPs, particularly those that focus solely on academic support in the first year, and that are clearly demarcated from mainstream provision, run the risk of reinforcing a deficit discourse as it relates to students – positioning ECP students as outside the norm or reference point for which mainstream courses are designed (Leibowitz & Bozalek, 2015). A UDL approach, on the other hand, positions diversity as the norm, and advocates for learning environments that offer equity and inclusion for all students, supporting a social justice agenda. This aligns with arguments already discussed in this chapter for doing away with separate ECP provision and embedding academic development approaches into mainstream curricula. Indeed, in a South African higher education context diversity is the norm, and very few students fit into the 'traditional student' mould – middle class, coming from elite, well-resourced schools, and unencumbered by financial and care responsibilities (Leibowitz & Bozalek, 2015). This places the onus on institutions and academics to incorporate difference and flexibility into

mainstream curricula and pedagogy. This aligns well with the theory on academic literacy in that it shifts the attention away from supposed deficiencies within individual students, and rather looks at institutional settings that are inherently exclusionary for a diverse student body.

While Leibowitz & Bozalek (2015) do not focus solely on digital or online learning environments in their discussion on a UDL approach to higher education, they do mention potential affordances of technology in facilitating the flexibility and student agency that UDL espouses. As argued earlier, flexibility in pace is an important aspect of enabling epistemological access, and technology can be drawn on to support this flexibility. It is helpful to also think of other instances of flexibility that technology could be used to support, especially as blended learning environments have become a norm post-COVID, and offer a flexible alternative to the traditional, and often rigid, didactic lecture format. Blended learning environments can be designed to support flexibility, student agency, and choice in terms of different ways of representing and engaging with learning material.

2.12 Applications of Bernstein's work and the analytical framework for this study

Given its concern with the micro-processes of pedagogy and the implications for educational inequality, Bernstein's work provides a well-suited theoretical and analytical framework for this study. Bernstein argues for access to powerful disciplinary knowledge as requisite for distributional and social justice and thus explores the workings of curriculum and pedagogy that can constrain or support student access (Wheelahan, 2023). While Bernstein's work was critiqued for a lack of empirical support (Sadovnik, 1991; Edwards, 1987) his concepts have been extended, developed, and even altered by various authors carrying out empirical work (Moore, 2013; Barrett, 2012). Barrett (2012), acknowledging the importance of further empirical work to build on Bernstein's concepts, argues that Bernstein produced a conceptual language that is enduring and can effectively be applied to new contexts. Similarly, Moore (2013) argues that while Bernstein's original work can be quite abstract, his concepts can be usefully translated into empirical evidence observable in the world. Indeed, Bernstein (1975; 1990; 2000) recognised the lack of empirical work and encouraged other researchers to take these concepts forward in their own research sites. In that vein, this study contributes to this agenda and applies the concepts in a novel manner to a new context.

Given the importance of access to powerful disciplinary knowledge, it is useful to gain a comprehensive understanding of the features of different disciplines and their valued knowledge, and the pedagogic practices best suited to supporting immersion in different disciplines. Bernstein's work provides a conceptual language for analysing curriculum and the micro-processes of pedagogic practice, particularly in the concepts of classification and framing. Several studies have drawn on and extended Bernstein's concepts of classification and framing in a multitude of educational contexts. In many of these studies, authors map out pedagogic modalities which illustrate the features of the pedagogic environment and its implications for student access and success (Shay, Wolff & Clarence-Fincham, 2016a; 2016b; Lubbe, 2017; Ensor, 2004a; 2004b; Ellery, 2017a). Rather than a blanket prescription of one ideal pedagogic modality that is most equitable, empirical observation and

judgement in different settings is necessary (McLean, Abbas & Ashwin, 2013b), particularly taking into account the qualities and features of each discipline (Maton & Moore, 2010). While there are many generic aspects of good quality teaching, disciplinary aspects have often been neglected (McLean, Abbas & Ashwin, 2017).

After perusing the findings of various Bernsteinian studies, one can conclude that there is no consensus on the 'ideal' when it comes to pedagogic approaches. Most authors do agree, however, on the use of a mixed pedagogic approach with relatively stronger or weaker framing over various aspects, and all agree on the importance of explicit evaluative criteria, but differ on approaches to framing over sequence, pace, and hierarchical rules depending on the discipline (Ellery, 2017a; Morais & Neves, 2017; Morais, 2002; Aploon-Zokufa, 2013; Hoadley & Muller, 2010; Hoadley, 2006; 2007; Scott, Yeld, & Hendry, 2007; Arasaratnam-Smith & Northcote, 2017; Gamble & Hoadley, 2011; Bolton, 2006). Pedagogical decisions are context-specific and discipline-dependent and some aspects of pedagogy, such as sequence or pacing, are also more significant in certain contexts than others, such as the emphasis on sequence given the sequential dependencies in a mathematics or science curriculum (Hugo, 2013; Hirst, 1974).

In cases where students are underprepared for university study and struggle with the expectations of autonomy and self-sufficiency in these environments, some studies have found that stronger framing over hierarchical rules, with more explicit and overt instruction, may be useful in supporting students' epistemological access (McLean, Abbas & Ashwin, 2017; Gamble & Hoadley, 2011). Others differ from this view, arguing instead for weakly framed and more casual relationships between student and teacher (Morais et al., 2004). In a study of university-level foundational and first year science courses, Ellery (2017a) concluded that students find a more casual, and weakly framed relationship with their instructors quite valuable, especially when there are few constraints for students in asking for additional help during or after class. Morais & Neves (2017) also found that weakened framing over hierarchical rules was valuable for students' epistemological access and was shaped in part by weak classification over relations between teacher and student space in the classroom. These contrasting

findings across a diversity of research sites reiterate the importance of in-depth empirical work to explore suitable pedagogic approaches for different disciplines and contexts.

Studies by Ellery (2017a; 2017b), Morais & Neves (2017), Hoadley & Muller (2010), and Hoadley (2006), have emphasized flexibility, or weaker framing, over pacing as a means of supporting students' epistemological access. Indeed, in the South African higher education space, differentials in pace of progression through the curriculum are necessary given the diversity in student preparedness, and the educational inequalities faced by many students (Scott, Yeld, & Hendry, 2007; Shay, Wolff, & Clarence-Fincham, 2016b). This flexibility over pacing and the potential for differentials in pace of progression has often been considered too complex and expensive to implement (Morais, 2002). This study explores instances of weaker framing over pacing supported by technology which are beneficial to students' access.

Bernstein's concepts are essential in understanding the nature of powerful knowledge and students' access to it. These concepts are frequently cited in the work of authors and practitioners in the South African academic development space, as they share Bernstein's main concern of understanding and addressing educational inequalities (Shay, Wolff & Clarence-Fincham, 2016a, 2016b; Lubbe, 2017; Ensor, 2004a; 2004b; Ellery, 2017a; 2017b). The concepts are useful in that they provide the means for not only understanding social structures that are inequitable, but also a recognition that within these structures individual actors have agency and thus change and transformation is possible (Bernstein, 1990). Shay, Wolff & Clarence-Fincham (2016a, 2016b) draw extensively on Bernstein's concepts of knowledge structures, using these concepts to differentiate between the curriculum reform needs in disciplines with hierarchical knowledge structures, such as STEM disciplines, and disciplines featuring horizontal knowledge structures, common in the Humanities disciplines. Again, this work emphasizes the importance of pedagogic practices that are tailored to the unique features of each discipline.

A Bernsteinian analysis is appropriate for this study given the aim of analysing pedagogic practices which enable epistemological access and equity for students. While extensive empirical work has been carried out to explore effective pedagogic modalities in various schooling and higher education contexts, there is a paucity of empirical work exploring mixed pedagogic approaches in the online and blended learning environments of various disciplines in higher education – a gap that this study fills.

In this study I adapt Bernstein's concepts as an analytical framework to explore four case studies of ECPs. I use the concepts of framing and classification to map out pedagogic modalities for each case study and thus to describe the pedagogy in each case in detail, e.g. how the learning is paced, how the content is selected and sequenced, how strong the boundaries are between one discipline and another, etc. The case studies also describe the affordances and limitations of different learning environments with regard to pedagogic practices, e.g. how some online learning environments may allow for more flexibility and student agency over pace of learning.

The pedagogic device presents a useful framework for exploring how knowledge is transformed from disciplinary knowledge into the classroom, and this study focusses specifically on the fields of recontextualisation and reproduction to better understand the intended and enacted curriculum. As the research extends across different disciplines, the theory on knowledge structures proves useful in differentiating between different disciplines, with the recognition that each discipline requires its own teaching and learning approaches.

I extend and adapt Bernstein's concepts as other authors have done and provide a unique application of this work to explore how widening participation and epistemological access can be supported in online and blended learning environments specifically. There is a paucity of research at the intersection of educational technology, pedagogy, widening participation, and epistemological access using a Bernsteinian methodology. The methodology section will provide more detail on the analytical approach.

Chapter 3: Methodology

This chapter begins with an outline of the main research question and sub-questions for the study, followed by a description of the research design. The exploratory pilot work of phase one is detailed, as well as the case selection processes and descriptions of the participating university and four case studies within it. The second phase of the research and its data collection methods are covered in the following sections, followed by a discussion of the three prongs of data analysis. Finally, ethical considerations are outlined, accompanied by reflections on the researcher's positionality.

3.1 Research questions

The thesis thus far has outlined the challenges associated with widening participation in South African higher education, particularly regarding students' access to powerful disciplinary knowledge. Not only has the role of educational technology in widening participation in SA long been debated, the socially embedded nature of technology in higher education is now a reality given recent events. As teaching and learning continue in online and blended spaces, it is important to keep the focus sharply on supporting epistemological access rather than falling into purely technocentric understandings.

The main research question of the study is:

How do pedagogic practices in online and blended learning environments in South African higher education impact students' epistemological access?

To answer this research question, empirical research across four case studies was undertaken to investigate the micro processes of pedagogy in blended and online learning environments, and the experiences of the main actors within these processes, namely the academics and students. As discussed in the literature review, Bernstein's concepts of classification and framing provide the tools to explore the microprocesses of various pedagogical environments, and how these processes may support or hinder students' epistemological access to the university (Shay, Wolff & Clarence-Fincham, 2016a; 2016b; Lubbe, 2017; Ensor, 2004a; 2004b; Ellery, 2017a). Bernstein (1990; 2000) viewed pedagogic practices as fundamentally social practices in which social actors (teachers and students) engaged in communication. Like any social structure, shaped by interactions between different actors, these structures are not necessarily deterministic, but are open to change and agency, such as students' ability to display pedagogic resistance (Bernstein, 1990). The field of reproduction in the pedagogic device, where curriculum knowledge is enacted as pedagogic practice, is shaped by both teacher and student, and students can take an active rather than passive role (Bernstein, 1990; 2000; Singh, 2002). Indeed, the very concept of framing, which describes the control over various

pedagogic elements, implies the potential of a variety of pedagogical relationships in which students or teachers have relative control and influence.

Empirical analysis sought to understand how powerful knowledge was conceptualised in each case study and the ways in which pedagogic practices embedded in learning environments with certain affordances and limitations supported or hindered students' access to this powerful knowledge. The digital inequalities navigated by students and the impact this had on teaching and learning were also investigated. The rich empirical findings across these case studies provide insight into the main research question and prompts consideration of how these dynamics play out across the SA higher education sector. The following research sub-questions are thus proposed:

> **Sub-question 1:** How are epistemologically powerful forms of knowledge understood in the case study disciplines in this study?
>
> **Sub-question 2:** In which ways do the current blended and online pedagogic practices in these case studies support or hinder students' engagement with powerful knowledge?
>
> **Sub-question 3:** What are the affordances and limitations of online and blended learning environments in supporting or hindering epistemological access in these case studies?
>
> **Sub-question 4:** What are the digital inequalities faced by students that impact their participation in online and blended pedagogic practices?

Bernstein's work provides a framework for sociological empirical research on pedagogic practices and their impacts (Bernstein, 2000). This study brings these concepts into digitally-mediated learning environments, providing a unique lens and contributing to an area that is currently under-researched. Given the aim to understand these practices and the experiences of the social actors within them, a qualitative multiple case study research design is thus proposed, featuring in-depth ethnographically-informed field work and multiple levels of analysis.

3.2 Research design

This study takes the form of a qualitative multiple case study research design set in extended curriculum programmes of various disciplines at a research-intensive, elite South African university. The choice to focus on extended curriculum programmes rather than mainstream programmes as case studies is most appropriate given the study's aim to engage with marginalised students, as well as the fact that these programmes have been the focus of much academic development work in South African higher education – an important focal point of this study. Given the focus on pedagogic practice, a course forms the unit of analysis in each case. Bernstein's work (1990; 2000) positions the pedagogic *relationship* between teacher and student and its forms of communication as the unit of analysis, rather than the individual. These relationships are conceptualised as fundamentally social relationships between social actors. The study participants are comprised of students and academic staff involved in these extended curriculum programmes, including the course convenors, lecturers, educational technologists, tutors, and leadership/management staff. The case selection of the participating university and the four case studies within this university will be elaborated upon below.

The academic literacy and Bernsteinian studies consulted in this research are mainly qualitative in their methodologies, but studies looking at digital inequality and digital literacy often use a mix of qualitative and quantitative methods and, while there is rich quantitative work in this space, Helsper & Eynon (2010) suggest that more qualitative work could be beneficial in understanding how people learn online. The ways in which phenomena are operationalised for the purposes of quantitative analysis can also lack some depth and nuance (Helsper & Eynon, 2010; Robinson, Wiborg, & Schulz, 2018). van Deursen & van Dijk (2015) and DiMaggio et al. (2004) recommend more qualitative research in the area of digital inequality (Collin & Brotcorne, 2019), especially as most surveys do not tell us *why* people fail to use the internet for particular purposes. This work is particularly needed in low and middle-income country contexts (van Deursen & van Dijk, 2015; Billon, Crespo, & Lera-Lopez, 2021). This research addresses gaps in the literature in this regard by taking a qualitative, sociological approach to exploring technology use in education.

A few studies have used ethnographic observations and interviews to understand young people's internet use and media practices, and their lived experiences of digital inequalities, with rich findings that interrogate some of the assumptions regarding digital inequality and digital literacy (Wilkin, Davies, & Eynon, 2017; Robinson, 2009; Ryberg & Georgsen, 2010; Racherla & Mandviwalla, 2013; Wildermuth, 2020; Bekesas, Mader, & Riegel, 2016). The current study uses qualitative methods, with the aim of providing a rich and detailed description of the digital inequalities that South African students face, the strategies they employ to navigate these inequalities, as well as rich descriptions of pedagogic practice within online and blended learning environments of various case studies, and how these practices support or hinder epistemological access.

Flyvbjerg (2011) defines a case study as an intensive analysis of an individual unit stressing developmental factors in relation to environment. Case studies are appropriate for studying a phenomenon in depth, in its 'natural' setting, recognising that the phenomenon cannot be studied outside of this context if we are to capture the complex web of factors impacting it (Selwyn, 2010; Swanborn, 2010; Yin, 2018). Often the boundaries between the phenomenon and its context may not be clearly evident (Yin, 2018). Case studies are also well-suited to answering 'how' research questions – explaining some contemporary circumstance or social phenomenon in depth (Yin, 2018). Gaining an in depth understanding of online and blended pedagogic practices within a small number of ECPs requires empirical work that acknowledges the complex web of aspects that shape them – the schooling backgrounds of students and the capital (or lack thereof) with which they enter the institution, the digital inequalities they face, the strategies that academic staff on these programmes employ to support students, the disciplinary contexts and their expectations, the institutional context, and the broader South African higher education space, its challenges, and complex history. A multiple case study design, as opposed to a single case study, is beneficial in enabling a wider variety of insights on a phenomenon, analytical benefits, as well as rich comparative potential (Yin, 2018), and four case studies were thus selected for this study.

The study comprised of two broad phases. The initial exploratory phase took the form of semi-structured interviews with South African academic development and educational technology experts. This exploratory work supported case selection and highlighted important avenues to be pursued in the second phase. Purposive sampling was used for the selection of the participating university and the four case studies. The participating university was selected based on criteria related to the key concerns of the study, and for its diverse extended curriculum programme courses, as well as the potential for rich cross-case comparisons. Given the conceptualisation of epistemological access as access to powerful disciplinary knowledge, the four case studies were selected to provide the richest diversity in terms of disciplines and disciplinary knowledge, as characterised in the literature review.

The second phase involved ethnographically-informed field work in four extended curriculum programmes in the selected South African university. Case studies draw on multiple sources of evidence (Yin, 2018). Data collection activities in this study included semi-structured interviews with staff and students, and in-person and digital observations of academic activities and content.

The next section will describe the first phase of the research.

3.3 Phase 1: Exploratory pilot work

van Schalkwyk (2007) and van Schalkwyk, Bitzer, & van der Walt (2009) demonstrate the value of exploratory work, particularly in the form of semi-structured interviews with academics, which can inform subsequent field work regarding avenues of interest to pursue. Swanborn (2010), MacDonald (2012), and White et al. (2004) also highlight the importance of initial contact with knowledgeable informants, who may have a key role in the institution of interest, an in-depth knowledge of the field, and who could introduce the researcher to relevant gatekeepers (White et al., 2004).

The exploratory pilot phase of the project, which began in July 2021, included eight semi-structured interviews with experts in academic development and educational technology. The exploratory phase served the purpose of illuminating some of the key issues related to academic development and online and blended learning in South African higher education at the time. This informed some of the data collection activities, such as the creation of interview guides, and provided important contextual information when beginning fieldwork in the case studies. In some cases, these initial interviews also provided recommendations for potential case study leads.

3.4 Case selection and descriptions

3.4.1 Participating university

There were several criteria that were considered when selecting a university setting for this study in which the case studies would be embedded. Firstly, the university should run extended curriculum programmes, which was not a challenge as most South African universities run these programmes and receive redress funding from the government for this express purpose. Secondly, the university should be a traditional, elite, research-intensive university that featured a predominantly white staff and student body during apartheid, but has since experienced rapid diversification and demographic transformation, particularly of the student body (Swartz et al., 2018). This means that, during apartheid, the university was characterised by a largely monocultural and monolingual student body, with students having educational and social backgrounds which closely mirrored the privileged institutional culture (Boughey, 2000). This has resulted in significant challenges in recent decades regarding the epistemological dimension of widening participation in HE, requiring a fundamental transformation to how these institutions were initially designed. Thirdly, while formal access at the institution has greatly increased for marginalised students, often through ECP offerings, the university should be grappling with meaningful transformation at an institutional and pedagogic level, which impacts epistemological access. Higher education completion rates are still racially skewed (Smith, 2013), and decolonisation of knowledge production and institutional culture still requires much work (Bozalek & Boughey, 2012; Baker et al., 2019; Kapp & Bangeni, 2009; Booi et al., 2017). It is in these settings that the key concerns of the study, particularly educational and digital inequalities and epistemological access, are most pronounced. Five South African universities were thus considered.

The participating university was selected based on the diversity of extended curriculum programme courses on offer, determined via informal conversations with informants and perusal of university handbooks. Leads and recommendations from the initial exploratory work, as well as the relative responsiveness and availability of participants were also factors in the selection. Initially, I had considered carrying out fieldwork at two universities for the comparative potential. During the

exploratory pilot work, however, I noted the diversity of approaches and apparent tensions across faculties and departments within the participating university in relation to academic development, student support, and educational inequalities. I thus concluded that there would be sufficiently rich data within this single university setting, as well as potential for detailed cross-case analysis. I felt that this could provide interesting insights related to institutional diversity and tensions. The selected university is described below.

The four case study courses in this study are situated within three faculties in one South African public university. This university can be described as traditional, elite, and research-intensive. The university has six faculties and a business school, and offers undergraduate and postgraduate programmes, from bachelors to doctoral degrees, for a student body in the tens of thousands. The academic year at the institution follows the calendar year, with most programmes beginning classes in February until November. The year is broken into two semesters, and further into four terms. Each semester is fourteen weeks long.

Historically, this was a white and male dominated institution, modelled on many of the features of elite British universities, such as the tutorial system, thus reflecting the country's colonial past. The institution has always been a site of active protest and debate, with much anti-apartheid activism, which was often violently opposed by the government, and recently the Rhodes Must Fall and Fees Must Fall national student movements, which brought many issues related to transformation at the institution to light. During apartheid, the university did admit a small number of black students, despite the apartheid government's legal restrictions in this regard, and the number of black students increased significantly in the 1980s and 1990s. As for the current student body, about half of students at the institution are classified as 'generic black' per the institution's reporting, which they define to include the categories of 'Black South African', 'Coloured', 'Indian', and 'Chinese'. 15% of the student body is made up of international students which fall outside these South African-specific racial categories. While these racial categories, which originated in apartheid, are of course contested and socio-politically constructed, they persist in most facets of South African society, and reflect how

most South Africans still self-identify (Houston et al., 2022; Posel, 2001; DHET, 2023). Indeed, there is a strong rationale for the persistence of these categories as they are used by the government as a basis for redress in social, economic, and political arenas, such as in employment equity policies (Houston et al., 2022; Posel, 2001) and, in the case of higher education, in contextualised admissions and redress funding (DHET, 2023). While the Black Consciousness Movement in the 1970s in South Africa argued for a unified definition of 'Black' which subsumed 'Black African', 'Coloured', and 'Indian' identities, in order to challenge the racial hierarchies and socially constructed categorisations of the apartheid government, there is also a recognition of the relative privilege experienced during apartheid by certain racial groups and thus the value of making these distinctions (Houston et al., 2022; Posel, 2001; Adhikari, 2005; Liss, 2011). The 'Coloured' racial identity, for example, which was highly contentious during apartheid and within the context of the Black Consciousness Movement, is now, in a post-apartheid context, an identity which is celebrated, embraced, and affirmed by many of those that identify with it (Adhikari, 2005). The term 'Coloured' may have derogatory associations in contexts like the United Kingdom and the United States, but in the South African context it refers to a highly diverse social group of indigenous Khoisan, African, Asian, and European ancestry (Adhikari, 2005).

The university receives designated redress funding from the government to offer academic development programmes – primarily the extended curriculum programmes (Ogude, Meyer, Mwambakana & Mthethwa, 2019; Case, Marshall & Grayson, 2013; Czerniewicz, 2004). Extended degree programmes are offered in the humanities, commerce, science, and engineering and the built environment faculties, but the nature and format of these programmes differ across faculties. There is no standardisation in how faculties implement their academic development work. While the ECPs are characterised by an additional year of study on each programme, the structure of the programmes themselves are left to each faculty to design. It is worth noting that the humanities faculty at the university encapsulates both humanities and social science disciplines, rather than having a separate social sciences faculty, which may reflect a trend of humanities and social sciences

becoming more entwined (Becher & Trowler, 2001). Bachelor of Arts and Bachelor of Social Science degrees are thus offered through the humanities faculty.

The humanities educational development unit, for example, which manages the humanities and social science courses in this study, requires students to complete foundational first year courses focussed on academic reading, writing, and other literacies in the context of the disciplines in this faculty. Academic development support also extends beyond the first year in the form of additional tutorials for ECP students taking mainstream second- and third-year courses in the faculty. These additional tutorials develop the disciplinary academic literacies required for those courses. The unit is also responsible for tutor training and development in the faculty.

In the commerce faculty, on the other hand, the support is confined to the first year through augmented courses offering academic support across commerce disciplines. The commerce case study course in this thesis takes the form of more generic study skills support, along with career guidance, and a strong focus on pastoral care, including mentorship and community building.

In the science faculty, all students begin on the mainstream programme and at the end of the first term, students are either advised or choose to extend their degree. If they elect to extend their degree, they will complete a number of extended courses in the first year and into the second year, which aim to strengthen students' understanding of foundational science concepts and skills depending on their major, like chemistry, mathematics, or physics, which is the course under study in this research.

The engineering and built environment faculty takes a similar approach in advising or allowing students to extend if they struggle in their first year. They are provided with additional foundational support in mathematics and physics in the first year. In the second year the ECP students are provided with additional tutorial and non-academic support, and in the third year this is reduced to solely non-academic support.

Students' admission to programmes at the university, including the extended programmes, is based on their academic performance, including their school results and performance on a national benchmark test, as well as their demographic information, their family education levels, financial aid eligibility and status, geographical information, school attended, disability information, among other aspects (DHET, 2023).

3.4.2 Case studies

The purpose of qualitative case selection is to reflect the diversity of the group or population under study, and to deliberately select cases that can provide a wealth of empirical examples of a phenomenon of interest (Barbour, 2007; Flick, 2011). This study is concerned with students' epistemological access in online and blended learning environments in South African higher education. As epistemological access is defined as access to powerful disciplinary knowledge, I aimed to explore a diversity of disciplines and their online and blended pedagogic practices. To ensure diversity in case selection, it was important to explore the various ways in which disciplines, and their knowledge, are conceptualised, classified, categorised, and thus differentiated from one another. The literature review provides a discussion in this regard, referencing perennial dichotomies between quantitative and qualitative forms of knowledge, and most often between Humanities and STEM, and distinctions made between hard and soft, and pure and applied disciplines. The literature review unpacks the ways in which Bernstein conceptualises disciplinary knowledge and disciplines and how these relate to the aforementioned categorisations, referencing his concepts of horizontal and vertical discourses, hierarchical and horizontal knowledge structures, and regions, singulars, and genericism.

A thorough analysis of disciplines and their characteristics is necessary, as attempts to grapple with issues of teaching and learning that are not informed by these disciplinary understandings could be problematic (Becher & Trowler, 2001). Case study research is well suited to exploring the contexts and nuances of disciplinary teaching and learning (Trowler, 2014). Academics' understanding of their disciplinary subject matter influences the pedagogic practices they employ in teaching it, and these

complex links between pedagogy and discipline are under-researched (Becher & Trowler, 2001). Given the differences in teaching and learning in different disciplines, we can also assume that the ways in which technology is integrated into teaching and learning practices will need to differ by discipline as well (Czerniewicz & Brown, 2007). The paucity of research on these linkages is even more acute in digitally mediated learning environments, especially as many academics and institutions have utilised technology in their educational settings only recently in response to the pandemic, and established, 'best practice' pedagogic practices in these environments are yet to fully take shape. This study seeks to understand the pedagogic practices that can support or hinder epistemological access across a range of disciplines. As mentioned, in order for this research to have the most impact, it is important to draw from case studies across as wide a range of university disciplines as is feasible within a doctoral study. Four case studies were thus selected. Each case study is a semester-long or whole year course for first-year students on extended curriculum programmes at a South African university. The need to support epistemological access to powerful disciplinary knowledge is most acute in these settings given the apparent under-preparedness of extended curriculum programme students for university study, and the historically high dropout rates, especially within the first year of students' programmes. These courses intend to offer an important epistemological access point to the disciplines these students plan to pursue.

The first course, referred to as the **social science case study**, is a semester-long course taken by all students on BA and BSocSci extended degree programmes in their first semester. The course draws on social science concepts as a vehicle through which students develop their academic reading and writing. Given the focus on social science concepts, the course material is most relevant to BSocSci students. Depending on their majors, students could be studying in a soft-applied, or soft-pure discipline, e.g. psychology, sociology, or philosophy as soft-pure examples, while organisational psychology or social development are soft-applied examples. In Bernstein's terms these would be horizontal knowledge structures that are either singulars or regions depending on the major.

The second course, referred to as the **physics case study**, is a physics course for the extended BSc programme and begins in the second term of the first semester once students have been allocated into either the mainstream programme or extended programme based on their first term test results, and extends to the end of the academic year. The course aims to support students in their development of essential conceptual tools and skills for the study of physics. Physics constitutes a hard-pure discipline and, in Bernstein's terms, an example of a hierarchical knowledge structure and a singular.

The third course, referred to as the **humanities case study**, is a semester-long course taken by first year students on the Bachelor of Arts extended programme in their second semester. The course is not tied to a specific discipline but is rather concerned with supporting underprepared students in reading, writing, analysing and engaging with texts in the humanities. Students on this course major in humanities disciplines that are classified as soft-pure or soft-applied and, in Bernstein's terms horizontal knowledge structures, and singulars or regions depending on the major.

Finally, the fourth course, referred to as the **commerce case study**, is a whole year course offered to first year Commerce students on the extended degree programme. The first semester of the course covers self-development, with a strong focus on mental health, while the second semester of the course explores career options and guidance, particularly in commerce-related careers. Students on this course generally major in commerce disciplines that can be described as hard-applied, as well as regions in Bernstein's terms, given the focus on practical application to market needs and professional competencies.

Case selection that reflects a diversity of disciplinary groupings is well suited to academic development studies (Shay et al., 2011). By pursuing the four case studies above the study was manageable within the constraints of a doctoral thesis, while covering a wide range of disciplines and classifications, including the key distinction between Humanities and STEM, the four categories

outlined by Becher & Trowler (2001) in the Kolb-Biglan framework, both horizontal and hierarchical knowledge structures as outlined by Bernstein, as well as his singulars and regions.

3.5 Phase 2: Ethnographically-informed case study research

Ethnographic approaches to research aim for thick participation, involving sustained and intimate engagement, and precise description – building a thoroughly detailed, authentic, and contextualised account of the research setting, allowing for the development of in-depth insights (Lillis, 2008; Turner et al., 2017; Flyvbjerg, 2001). Data are gathered from a range of sources in naturally occurring contexts (rather than under experimental conditions) and the focus is on making sense of observed events from participants' perspectives, emphasizing the meanings and significance they attach to these events (Lillis, 2008; Hammersley, 2006; 2018). While this study cannot be classified as 'ethnography' in the traditional, anthropological understanding of the term (Hammersley, 2006; 2018; Mills & Morton, 2013), the field work was ethnographically-informed in that it included long-term involvement and multiple methods of data collection in a number of small case studies, in naturally occurring contexts that were not manipulated by the researcher, with a focus on making sense of the data from the participants' perspectives.

Hammersley (2006: 11) argues that an ethnographer's work:

> *…must neither be in the service of some political establishment or profession nor an organic intellectual seeking to further the interests of marginalised, exploited, or dominated groups. Both of these orientations greatly increase the danger of systematic bias.*

The current study has an overt social justice agenda, and I would argue that such an agenda, rather than detracting from the research, has given it value in addressing pressing and important social issues - in this case challenges around widening participation and supporting epistemological access in South African higher education. As McArthur & Ashwin (2020) argue, objectivity does not necessarily equate to rigour, and the pursuit of social justice can in fact enhance the quality of research rather than detracting from it.

3.6 Data collection

As is typical of case study research, this study draws on a variety of data collection methods to explore small-scale case studies in depth. These data collection methods included semi-structed interviews and informal conversations with academic staff, semi-structed interviews with students, digital observations of the online course sites, and in-person observations of various sessions, including lectures, lab sessions, and workshops. This allowed for a multi-faceted exploration of pedagogic practices in these case studies as I was able to receive first-hand accounts of the participants' own experiences, as well as my own observations and impressions of these practices.

I began reaching out to prospective academic participants associated with potential case studies shortly after my Transfer of Status in September 2021. To carry out research at the chosen university, I needed to apply for three separate ethical approvals – to carry out the research project at the university, to interview staff, and to interview students. Ethical approval to carry out the study was received in December 2021 and was valid for one year. Staff and student research access were also confirmed in January and February 2022. Please refer to ethics approval forms in Appendix B. Some of the leads I followed were non-responsive or ended up not being feasible. Although the initial recruitment of case studies was arduous, I was able to find four case studies that suited my case selection requirements and provided the requisite diversity in terms of data.

The bulk of the data collection took place during the 2022 academic year, which ran from February to November. In general, the process for each case study included initial contact with a course convenor, the setup of an interview, agreement regarding the inclusion of the course as one of my case studies, access to the online course site, and interviews with students. As will be explained later in this chapter, data collection in general was slow and unpredictable as many of my academic participants, who were gatekeepers to the online course sites and students, were at times slow to respond or non-responsive in some cases. My data collection plan thus needed to be responsive and adaptable depending on availability and access.

The below table provides a summary of the data collected for each case study. For a detailed data collection timeline, please refer to Appendix F.

Table 1: summary of data collection

Phase 1: Exploratory pilot work				
Interviews with eight academic development and educational technology experts in the South African higher education space (July-December 2021)				
Phase 2: Ethnographically-informed case study research				
	Teaching team interviews	**Student interviews**	**Digital observations**	**In-person observations**
Social Science case study	Interviews with both course convenors (April 2022) Interview with lecturer (July 2022)	Six student interviews (May 2022)	Digital observations of online course site (including live classes via chat room) (April 2022)	N/A (fully online course)
Humanities case study	Interview with course convenor (March 2022) Interview with educational technologist (March 2022) Three interviews with two lecturers (August-September 2022)	Six student interviews (September 2022)	Digital observations of online course site (March; July-September 2022)	Observation of lab session (September 2022) Observations of two workshop lectures (September 2022)
Physics case study	Interview with course convenor (as well as two informal conversations) (December 2021; April; September 2022) Informal conversations with tutors and lecturer (April-May 2022)	Six student interviews (June; September 2022)	Digital observations of online course site (January-February 2022)	Observation of two whiteboard sessions (April-May 2022) Observation of one lab session (May 2022)
Commerce case study	Interview with course convenor (April 2022) Interview with facilitator (September 2022) Interview and informal conversation with head of Commerce educational development department (October; December 2022)	Five student interviews (October-November 2022)	Digital observations of three online course sites (March; September-October 2022)	N/A (access and consent issues)

3.6.1 Interviews

To gain a comprehensive picture of the pedagogic practices in each case study, it was important to speak to the main social actors, namely the students and the academic staff on these courses. Because these are ultimately social practices, qualitative methods, like interviews are appropriate for data collection as they are well-suited to gathering insights on human experience, accessing people's thoughts and ideas in their own words (MacDonald, 2012). Various studies in the academic development field have produced rich qualitative data through semi-structured interviews with students and academics (van Schalkwyk, Bitzer, & van der Walt, 2009; Boughey, 2000; Paxton & Frith, 2014; García, & Guerra, 2004; Durkin & Main, 2002; Sibiya & Mahlanze, 2018; Marshall & Case, 2010; Ogude, Meyer, Mwambakana & Mthethwa, 2019; Shay, Wolff, & Clarence-Fincham, 2016b; Turner et al., 2017; Bangeni & Greenbaum, 2019; van Schalkwyk, 2007; Ellery, 2017a).

Interviews were carried out with students and staff on the courses. I contacted staff via email, oftentimes through personal recommendations or referrals. I provided a short description of my study and why I felt they would be valuable participants, as well as attaching an abstract, information sheet, and consent form. For the recruitment of student participants, I first requested permission via the relevant staff member/s and they then sent out either an email or an announcement via the LMS which included details of the study and my email address so that students could contact me if they were interested in participating. Student participants received a ZAR75 airtime voucher reimbursement for participation in the interviews. In some cases, multiple invitations were sent to the relevant student cohort. After students contacted me expressing their interest in participating, I would send them the information sheet and consent form and then arrange an appropriate day and time to set up the interview. All students who contacted me were offered an interview slot.

The interviews with staff and students were conducted either in person on campus, or online on Teams, depending on the participants' preferences. Student interviews were 30 minutes long, and interviews with staff ranged from 30 minutes to over an hour depending on their time available and the flow of the conversation.

The interviews were semi-structured in nature and, while interview guides were created (please refer to Appendix G for an example of an interview guide), my intention was to allow the participants to direct the conversation to a large extent based on the issues they considered most pertinent, and to allow unanticipated topics to emerge, while still covering the key areas. The interviews were informed by the needs and concerns of the participants themselves. I sought to foster an equitable approach in the research, and particularly in the interviews, acknowledging the rich, context-specific knowledge and experience of participants and how much I could learn from them – challenging the outdated roles of participant as passive subject, and researcher as all-knowing expert (MacDonald, 2012; Kemmis, 2006; White et al., 2004). This approach can also shift the focus from the problems to the strengths of marginalised communities (Fielding, Lee, & Blank, 2017). Indeed, presenting a balanced understanding of blended and online pedagogic practices in South African higher education requires acknowledging the challenges that students face, while also recognising the agency they exercise in their education, and the valuable insights they can provide in illuminating pedagogic practices in these environments, given their role as key social actors. As discussed in the findings chapters, students displayed sophisticated awareness of valued academic and digital literacies in their disciplines and applied strategic behaviour to their learning. The intended beneficiaries of the research are staff and students on these extended curriculum programmes and, as will be discussed later in this thesis, the research has aimed to provide insights that can inform online and blended teaching practice and thus support students' epistemological access. The interview guides were continuously refined and adapted based on an iterative approach to data collection.

My data collection timeline did not run as I had intended, but this ended up presenting valuable opportunities for my research. I often had long gaps of weeks or even months between data collection activities for the various case studies. This gave me time to start processing and even analysing my data between activities. This then allowed me to further refine my interview guides to pursue topics of significance in subsequent interviews. In the humanities case study, for example, I conducted the first two staff interviews in March 2022, and then interviewed two other staff

participants in August and September 2022, respectively. In the social science case study, as another example, I interviewed the two course convenors on the same day in April 2022 and conducted a third interview with a lecturer on the course in July 2022 following the completion of the other aspects of field work on the case study. This allowed me to incorporate emerging themes from the earlier staff interviews, student interviews, as well as from observations of both the online course site and in person classes, to further explore significant topics, to clarify misunderstandings, and to pose more insightful and informed questions. The iterative approach was thus helpful in contributing to the richness of the data and, in my view, was more productive than completing all the field work for each case study in one short, defined period.

Some of the interviews, particularly with student participants, incorporated a 'talk around texts' methodology in order to explore the valued literacies within the relevant disciplines.

Talk around texts

Lillis (2008; 2009) describes the 'talk around texts' methodology, first developed by Roz Ivanič, and now widely used, and influential, in writing and academic literacies research (Paxton & Frith, 2014; Boughey, 2000, van Schalkwyk, 2007; Bangeni, 2013; Kapp & Bangeni, 2009; Bangeni & Greenbaum, 2019). In practical terms, this methodology involves a discussion between the researcher and writer-participant about a text that the writer has written, or is currently writing (Lillis, 2009). Lillis (2009) notes that this text should be part of a learning or study activity in which the writer-participant is currently involved, rather than a task set up specifically for research purposes. This emphasizes the importance of exploring academic literacy practices as embedded within disciplinary discourse and assessment, rather than as generic or decontextualised practices. In addition to its role in academic literacies work, there is value in applying a talk around texts methodology in digital literacy and digital inequality research, as for example in Eynon's (2017) description of a similar method in which extracts from online discussion forums can be used as prompts for interviews with students, encouraging them to reflect on practices and behaviours made visible by technology.

While public discourse on students' writing in higher education is often shaped as a deficit discourse, particularly focussing on vague references to students' grammar or argument structure rather than the processes and practices in which texts are embedded, the talk around texts methodology allows the students themselves to play an active and participatory role in exploring the 'problem' of student writing in higher education, rather than taking it as a given (Lillis, 2009). This methodology also acknowledges the connection between discourse and its structural determinants and effects, acknowledging that the conventions underlying discourse practices are not neutral but are socio-historically shaped and reflect complex power dynamics (Lillis, 2009), a research focus keenly shared by Bernstein, particularly in his work on classification and framing.

In the interviews, particularly with students, I used current assessments and tasks within the course as starting off points for discussion on valued academic and digital literacy practices within the courses and their wider disciplines. In the social science case study, for example, we discussed their blog tasks and how they approached these, as well as the transition into formal academic essay writing. In the physics case study, we discussed the weekly tasks they completed in the lab and whiteboard sessions. In the humanities case study, we focussed on an assessment that students had recently submitted and for which they had just received feedback, namely a collection of texts they were required to compile. At the time, they were preparing for the subsequent and related task where they were required to carry out an analysis of the collection of texts. Given the recency and relevance, the talk around texts methodology was effective in drawing out rich insights from students. I was also pleasantly surprised to find that the talk around texts methodology often enabled students to make their own comparisons between the assessment expectations in the case study course and the other courses they were doing, demonstrating a sophisticated awareness of differing literacies practices across different disciplines.

3.6.2 Observations

This study explored pedagogic practices in online and blended learning environments across different disciplines. To explore these pedagogic practices firsthand, ethnographically-informed observations of the learning environments were an important method. Various academic development studies have employed observation as a key method, including those of Boughey (2000), van Schalkwyk, Bitzer, & van der Walt, (2009) and Turner et al. (2017). Observation is also widely used in Bernsteinian explorations of classification and framing in various pedagogic contexts (Ensor, 2004b; Ellery, 2017a; Aploon-Zokufa, 2013; Morais & Neves, 2017). Observation allows for the exploration of teaching and learning practices within their authentic setting, rather than an artificially constructed research environment.

In educational research of digital environments, Eynon (2017) suggests that the digital traces left in online learning environments can give researchers an opportunity to explore some of these educational processes that are traditionally hidden from view. Fielding, Lee, & Blank (2017) warn, however, that not all significant internet use leaves a lasting trace, nor is immediately visible to observation. In addition, it is important to acknowledge that due to digital inequalities, some important perspectives may be excluded from digital research (Eynon, 2017; Fielding, Lee, & Blank, 2017). The study has thus used a range of methods rather than relying solely on digital observations, including in-person observations and interviews with both staff and students. As most of the case studies incorporated blended teaching and learning, it was also important to explore pedagogic practices across both online and offline settings and how these practices integrated.

For the digital observations I received access to the 2022 online course sites on the learner management system for all four case studies. For the commerce, physics, and humanities case studies I also received access to the 2021 course sites. The digital observations included observations of discussion forum engagement, records of live classes on the chat room, and perusal of all online course content. This content included course outlines, tasks, readings, assessments, and marking rubrics in order to better understand the intended and enacted curricula in these courses. These

documents were mainly accessed via the online course sites. In one case there was a hardcopy handout in the physics lab session which I scanned afterwards and included in the analysis.

I carried out in person observations for the physics and humanities case studies. In the physics case study this included observations of two whiteboard sessions running for one hour and two hours respectively, as well as a two-hour lab session. In the humanities case study, there were two 45-minute workshop lectures and one 45-minute lab session. The social science case study course was run completely online in 2022, thus there were no in-person sessions to observe. Due to access and consent issues, I was unable to observe in person sessions for the commerce case study. While there were a few minor tasks I would assist with during my in-person observation sessions, e.g. setting up the teaching space for the physics lab sessions, for the most part I attended sessions purely as an observer rather than participant. I made field notes on my laptop during these observations which I then rewrote and refined following the sessions.

3.7 Data analysis

Creswell (2012) describes data analysis in qualitative research as consisting of preparing and organising the data for analysis, then reducing the data into themes through a process of coding and condensing the codes, and finally representing the data in a discussion. This study has a three-pronged approach to data analysis. The initial stages of data analysis coincided with the data collection, and early themes and findings were noted in analytic memos and drafts, with this writing being used to refine and explore the themes. After completion of data collection, Nvivo was used for further data management and organisation, and its functions related to supporting analysis were explored. Finally, as is consistent with a Bernsteinian methodology, the analysis is structured around an external language of description (ELoD) (Bernstein, 2000), which is found below - 3.7.3. Bernstein argues that the ELoD translates empirical relations into conceptual relations (Bernstein, 2000: 133). The data is analysed and categorised/coded based on this external language of description.

In the following sections I will discuss the data analysis strategies in more depth.

3.7.1 Initial data processing, analytic memos, and writing

The early stages of my data analysis occurred concurrently with data collection. As mentioned earlier, the time spent waiting for access to data collection activities proved valuable as it gave me the opportunity to begin processing and analysing data. It was important for me to be immersed in the data and I thus typed out the interview transcripts, rather than using transcription software. When working through my transcripts and field notes I made analytic memos (Mills & Morton, 2013). These included my immediate impressions, emerging findings, the relevance of the data to the theoretical concepts with which I was working, as well as notes on comparisons between the cases. Because I had already decided on a broad theoretical and analytical framework (I.e. Bernstein's concepts, particularly classification and framing) before beginning the data collection, I found that, even early on in my field work, I was able to start writing analytic memos and to apply an analytical framework to my data. I also began writing very early drafts of my findings for each case study as a way to organise and refine the themes that were emerging. The writing process itself was constitutive of my

thinking around much of the analysis (Dunleavy, 2003; Mills & Morton, 2013). As mentioned, I found these activities valuable in informing subsequent data collection activities as I was already generating emerging findings that I could interrogate, and noting questions and gaps in my understanding that I could follow up on. The data collection and analysis processes were thus interwoven and iterative in nature.

3.7.2 Nvivo coding and analysis

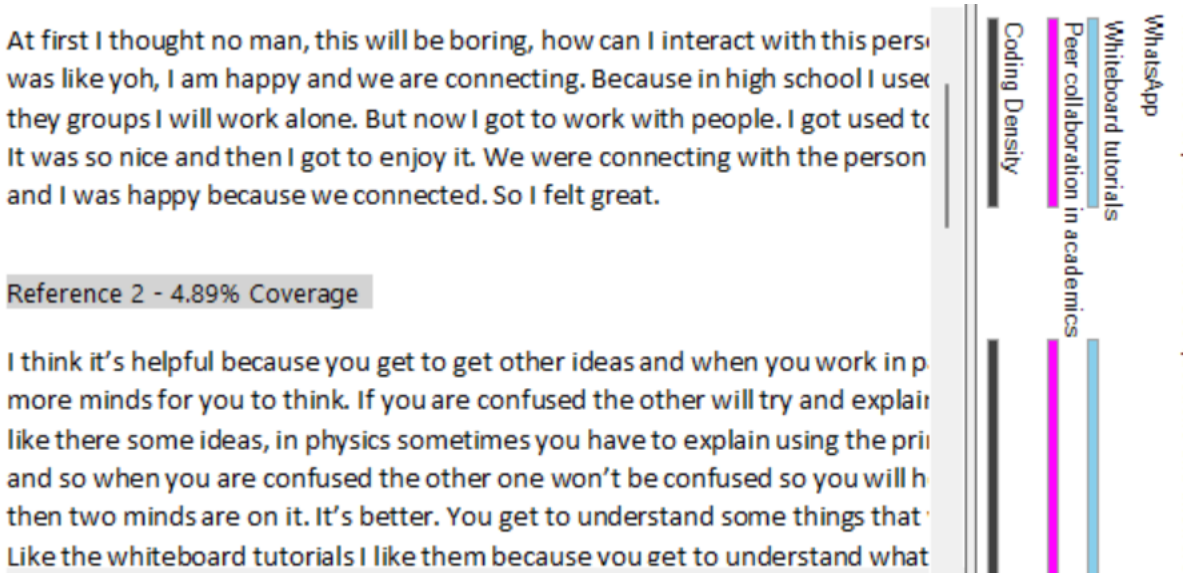
I used Nvivo 12 for some of the data management, organisation, and analysis tasks. Using Nvivo allowed further familiarity with, and immersion in the data. I removed the analytic memos from my interview transcripts and field notes and uploaded these to the platform. I then started coding again from scratch. In addition to a further layer of familiarity with the data, I also intended to see if there was consistency between the early high-level coding I had done in my analytic memos and writing, and the coding carried out in Nvivo. The use of Nvivo was also valuable in having quick access to quotes and extracts related to a particular theme.

I explored the potential Nvivo offered in supporting data analysis, primarily via the use of matrix coding queries. Firstly, I selected codes or themes that I felt were most significant to my research or prominent in my data, set these as a row in the matrix coding query, and then set the columns as all the data files - I.e. all transcripts and field notes. After running the query, I would look at the highest instances of the code in different data files, look at the quotes or extracts in these data files, and then write analytic memos based on the findings. As an example, I had a code called ‘peer collaboration in academics’ and, after running the query, found that the code appeared most prominently in the physics case study, across student and staff interviews, as well as in-person observations in this case study. After perusing the quotes and extracts I noted the importance of peer collaboration in the physics discipline, how it is encouraged and supported by the teaching team, and students’ recognition and appreciation of these peer learning opportunities, particularly in the contact space. The code did not appear prominently in the other case studies’ data files, and this aligns with the

nature of tasks and assessments in the other case studies which generally emphasize independent work, rather than peer collaboration.

In another matrix coding query I ran, I placed all the nodes (or codes) as rows, as well as columns. The purpose of this query was to see all the instances of high co-occurrences of particular codes in the data. It was then possible to open the extracts where these co-occurrences were present to see their content and source, e.g. which case study or which interview. Again, I wrote analytic memos based on the findings. For instance, using the same physics example from above, I noted a high co-occurrence of the code 'peer collaboration in academics' and 'whiteboard tutorials', which aligned with the data as one of the express purposes of the whiteboard tutorials was to foster peer-to-peer learning and engagement – noted by both staff and students. This co-occurrence could also be noted via accessing the coding stripes, as below, but when working through the entirety of the dataset it was more efficient and exhaustive to run a matrix coding query.

Figure 1: Example of coding stripes on Nvivo



I also experimented with other types of explore functions on Nvivo, such as word clouds, hierarchy charts, and word frequency, among others, but I did not find these functions helpful in supporting my analysis of the data.

3.7.3 External language of description

Bernstein's concepts are broadly translatable into various educational contexts, and many authors have taken these concepts forward to develop and refine his theories, using external languages of description. An internal language of description refines the abstract aspects of the theory into descriptions of an increasingly concrete nature that can be used to describe empirical evidence in the real world (Moore, 2013a). What would this phenomenon look like in practice? The internal language of description provides a range of possible or potential educational transmission codes, any of which may or may not actually be realised in a particular place or time (Moore, 2013a). The external language of description then provides the specific criteria by which one can demonstrate that something identified in the real world is an instance of the 'something' described in the internal language of description (Bernstein, 2000; Moore, 2013a). The external language of description is characterised by a higher degree of applicability (Bernstein, 2000; Morais, 2002), and is rooted in empirical data (McLean, Abbas, & Ashwin, 2013b). Is this empirical data an example of the phenomenon described in the theory?

In practice, the external language of description is often illustrated via coding frames – criteria used to describe and classify the data. The below are examples of coding frames from Morais & Neves (2017) which are used to describe and classify curriculum and pedagogic practice in schools.

Table 1. Excerpt from the instrument used to characterise the complexity of scientific knowledge in a secondary science curriculum (11th year).

Degree 1, C^{--}	Degree 2, C^{-}	Degree 3, C^{+}	Degree 4, C^{++}
The focus is on scientific knowledge of low level of complexity, as facts	The focus is on scientific knowledge of level of complexity higher than Degree 1, as simple concepts	The focus is on scientific knowledge of level of complexity higher than Degree 2, as complex concepts	The focus is on scientific knowledge of very high level of complexity, as unifying themes and theories

Table 6. Excerpt from the instrument used to characterise 'evaluation criteria' with regard to practical work in a secondary classroom context (10th year).

F^{++}	F^{+}	F^{-}	F^{--}
The teacher systematically indicates what is incorrect, at the level of substantive/processual knowledge, and refers clearly to what is missing in the text production	The teacher indicates what is incorrect, at the level of substantive/processual knowledge, and refers generically to what is missing in the text production	The teacher indicates what is incorrect, at the level of substantive/processual knowledge, but does not refer to what is missing in the text production	The teacher does not indicate what is incorrect, at the level of substantive/processual knowledge, and does not refer to what is missing in the text production *Or* Explanations are confusing and contain incorrect statements

(Morais & Neves, 2017: 267, 274)

Morais (2002), Morais et al. (2004), Ensor (2004b), Hoadley (2006; 2007), Aploon-Zokufa (2013), Gamble (2014), Ellery (2017a), and Daniels et al. (2019) develop similar external languages of description and coding frames in their empirical work. Specific combinations of relatively stronger or weaker framing and classification form pedagogic modalities. Rather than an ideal when it comes to pedagogic modalities, most authors argue for mixed pedagogic practices with relatively stronger or weaker framing and classification over certain dimensions based on the nature of the discipline or subject matter and its knowledge, as well as other contextual factors (Aploon-Zokufa, 2013; Ellery, 2017a; Gamble & Hoadley, 2011; Hoadley, 2006; 2007; Hoadley & Muller, 2010; Morais, 2002; Morais et al., 2004; Morais & Neves, 2017), as detailed in the literature review. Stronger or weaker framing and classification indicated in coding frames by the + and – symbols thus do not present a normative meaning, but rather a means of describing and classifying pedagogic practices. The one exception is framing over evaluative criteria which most authors agree should be explicit, and thus strongly framed in this regard (Ellery, 2017a; Morais & Neves, 2017; Morais, 2002; Aploon-Zokufa, 2013; Hoadley & Muller, 2010; Hoadley, 2006; 2007; Gamble & Hoadley, 2011; Bolton, 2006; Wheelahan,

2010; Shalem & Slonimsky, 2010; Muller, 2004), given its importance in supporting students' access to powerful knowledge.

The current study has developed coding frames to describe and classify the pedagogic practices of the selected case studies. The development of the ELoD has been an iterative and reciprocal process, informed by the empirical work. Morais (2002) argues for a dialectical relationship between the theoretical and the empirical in educational research where the internal language of description informs the external language of description, which then directs the practical structuring of research, and the analysis and interpretation of results. By the same token, the insights obtained in empirical work help to refine the external language of description and increase its precision, and eventually lead to the refinement and improvement of the theory (Bernstein, 2000; Morais, 2002; McLean, Abbas, & Ashwin, 2013b; Ashwin, 2009).

When embarking on my field work, I had a rough outline of the internal language of description based on Bernstein's work and the work of the authors mentioned above who have applied these concepts in practice. As I collected data and started analysing it, I followed the iterative process mentioned in the previous paragraph to start developing an ELoD. I particularly noted the nature of framing and classification in digitally-mediated learning environments, especially as there is a paucity of work applying Bernstein's concepts in these digital settings. In the following paragraphs I describe how my data informed the development of an ELoD and coding frames.

The data from this study offers a means to extend and enrich our understanding of Bernstein's concepts of framing when applied to online and blended learning environments. In the case of the four courses under study, where the expectation is that students work through much of the course content on the LMS independently, and at their own pace and sequence, the distinction between synchronous and asynchronous aspects of pedagogy become significant dimensions of pace and sequence. While, in the past, content delivery would generally take place in person, often in the traditional lecture mode, COVID necessitated a shift to online content delivery. Students now had

more autonomy and control over the pace and sequence of their work – when they decided to study, how long they would spend on different tasks, the ability to pause, rewind, rewatch, revisit, slow down, speed up, etc. The asynchronous online learning environment thus inherently displays weaker framing over pace and sequence given the student control and autonomy it affords.

While my data indicates that weak framing over pace and sequence are important in supporting epistemological access for students, the freedom and autonomy that students experience in the online space can also pose a challenge for self-regulation, self-directed learning, time management, and so on. These challenges were acknowledged by teaching staff on these courses and various strategies were used to support and scaffold students' self-regulation and self-directed learning. Unlike in the contact space where much guidance takes place informally with teaching staff and peers, the online environment requires more intentional and explicit learning design to elucidate these expectations. On the LMS, teaching staff structured content into modules and units, defined clear learning paths, provided explicit instructional text, suggested time and date allocations for tasks, among other strategies to guide and support students in their autonomous learning. These practices will be expanded on in the findings chapters.

This data indicates that both these dimensions of framing are important in understanding and analysing the online learning environment – namely, 1) control over the pedagogic practices (teacher or student), and 2) whether these pedagogic practices are made explicit or left implicit. Many studies which use Bernstein's concepts of framing conflate the two dimensions, or only focus on the first dimension (control) in their analysis, often only bringing in the second dimension (explicit/implicit) when analysing evaluative criteria. Bernstein (1990) does, however, acknowledge the importance of that second dimension in generating modalities of pedagogic practice and applies it not only to evaluative criteria, but also to sequence, pacing, and hierarchical rules. In the case of sequence and pacing, for example, an explicit pedagogy is one in which the pace and sequence of progression is made explicit to students, e.g. via defined milestones (Bernstein, 1990). An implicit pedagogy, on the other hand, is one in which the expectations of progression are known only to the teacher and are

not made explicit to the students (Bernstein, 1990). The explicit or implicit nature of these pedagogic practices thus refers to the visibility of the lecturer's intention as to what is to be acquired from the point of view of the student (Bernstein, 2000). Bernstein (1990; 2000) used these concepts in explicating his theories of visible and invisible pedagogies.

The data from this study on online and blended learning environments is best analysed by considering both dimensions of framing and separating these out in the analysis rather than conflating them. Indeed, there are examples of pedagogic practices in online and blended learning environments where one dimension is strongly framed, while another dimension is weakly framed. In some of the courses under study, for example, the expected pace and sequence is explicitly defined on the LMS via structure, instructional text, and so on (I.e. strong framing over the explicit/implicit dimension) but the student still has control and autonomy over how they navigate through this work (I.e. weak framing over the control dimension). The following tables thus provide descriptors of coding frames for the various aspects of framing and their dimensions.

Framing

Pace and sequence

Table 2: Pace and Sequence (control dimension)

	Synchronous		**Asynchronous**	
	F++	**F+**	**F -**	**F --**
Pace	Pace controlled by lecturer completely with no allowance for student input	Pace controlled by lecturer but there is room for student input to shape it	Student autonomy over pace; Pace suggested but not enforced	Student autonomy over pace; Pace not suggested
Sequence	Sequence controlled by lecturer completely with no allowance for student input	Sequence controlled by lecturer but there is room for student input to shape it	Student autonomy over sequence; Sequence suggested but not enforced	Student autonomy over sequence; Sequence not suggested

Table 3: Pace and sequence (explicit/implicit dimension)

	F++	**F+**	**F -**	**F --**
Pace	Pace of learning explicit, clearly signposted e.g. via instructional text on LMS	Suggested pace provided e.g. via instructional text on LMS	Some suggestions of pace, mostly implicit	There is no indication or guidance on suggested pace
Sequence	Sequence of learning explicit, clearly signposted e.g. via instructional text on LMS	Suggested sequence provided e.g. via instructional text on LMS	Some suggestions of sequence, mostly implicit	There is no indication or guidance on suggested sequence

Evaluative criteria

Table 4: Evaluative criteria (control dimension)

	F++	**F+**	**F -**	**F --**
Evaluative criteria	Lecturer in complete control of evaluative criteria and how students are assessed	Lecturer in control of evaluative criteria with some input from students for low stakes tasks	Student has some input on evaluative criteria in high stakes tasks	Student is in control of evaluative criteria and how they are assessed

Table 5: Evaluative criteria (explicit/implicit dimension)

	F++	**F+**	**F -**	**F --**
Evaluative criteria	Evaluative criteria explicit and integrated into course content – e.g. marking rubrics, etc.	Evaluative criteria referred to explicitly at some points in course content	Evaluative criteria somewhat implicit, few references in course content	Evaluative criteria implicit or missing

Selection

Table 6: Selection (control dimension)

	F++	F+	F -	F --
Selection	Lecturer controls selection completely; No student input	Lecturer controls selection; Some student input in low stakes settings	Student controls selection in some high stakes tasks within confines of requirements	Student completely controls selection with no constraints from lecturer

Hierarchical rules

The physical learning space often features spatial markers to denote hierarchy, e.g. the physical layout of a traditional lecture theatre designed for a mostly passive audience focusing on a singular 'sage on the stage' at the front of the space. Hoadley (2006) indicates how strong classification between lecturer and student space evident in many traditional lecture or classroom settings can denote stronger hierarchy.

These markers of hierarchy are, however, largely missing in online learning environments. Online learning environments, by their nature, are often thought to be 'flatter' in terms of hierarchical rules given the absence of physical markers of hierarchy (Walji et al., 2016). Unlike in a traditional lecture venue, for example, online profiles of both students and lecturers are presented on an equal footing and their 'voices' carry equal weight in chat rooms or discussion forums – e.g. being able to contribute at any time without requesting permission, one profile is not 'louder' or more pronounced than another.

Table 7: Hierarchical rules (control dimension)

	Contact/In-person		Online	
	F++	**F+**	**F -**	**F --**
Hierarchical rules	Inherently hierarchical environment with strong hierarchy imposed	Inherently hierarchical environment, efforts to reduce hierarchy to some extent	Inherently non-hierarchical environment, some indications of hierarchy	Inherently non-hierarchical environment, no/few indications of hierarchy

Table 8: Hierarchical rules (explicit/implicit dimension)

	F++	F+	F -	F --
Hierarchical rules	Hierarchy wholly explicit	Hierarchy mostly explicit, some aspects masked	Hierarchy mostly implicit, masked	Hierarchy completely masked

Classification

Those researchers who have used the concept of classification in their work have done so in various ways in order to understand relations and boundaries between disciplines, disciplinary identities, classroom space, specialised and everyday knowledge, among other aspects. When embarking on my field work, I thus considered various foci when it comes to classification based on this previous work. In the case of this study, the data suggests that the concept of classification is useful in understanding the relations between three categories – namely, classification between the course and other disciplines, classification between course content and everyday knowledge or examples, and classification between space and time dimensions.

One of the ways in which we can understand, analyse and categorise disciplines is by exploring their degree of insulation and specialisation from other disciplines. Disciplines can be defined relationally in how they differ or relate to other disciplines and thus classification is a useful tool to understand disciplinary content and structure (Wheelahan, 2010; Becher & Trowler, 2001). In this study, the express purpose of the humanities and social science courses, for example, is to prepare students for their other courses and majors within the faculty. The classification between the course and other disciplines is thus intentionally weakened to ensure this relevance. The physics course, on the other hand, is more strongly classified and insulated as the primary purpose of the course is to support students in this specific discipline.

Table 9: Classification between the course and other disciplines

	C++	C+	C-	C--
Classification between the course and other disciplines	Course is strongly classified; no relevance to other disciplines	Course is strongly classified, some relevance to other disciplines	Course is weakly classified, significant overlap	Course is weakly classified, no clear boundaries to differentiate this

			with other disciplines	from other disciplines

Disciplines can also be understood, analysed, and categorised based on the degree of insulation and specialisation between the course content and everyday knowledge (Bernstein, 1971; 1990), and the relations between specialised and non-specialised knowledge differ across disciplines (Young & Muller, 2013). Bernstein (2000) uses the concept of classification to describe and differentiate between singulars and regions, as an example – singulars being strongly classified, specialised, and bounded, while regions display weaker classification in that they are responsive to market needs and thus their content is less bounded and specialised.

Table 10: Classification between course content and everyday knowledge/examples

	C++	**C+**	**C-**	**C--**
Classification between course content and everyday knowledge/examples	Course is strongly classified, theoretical, abstract, with no reference to everyday knowledge or examples	Course is strongly classified with limited reference to everyday knowledge or examples	Course is weakly classified with clear integration in course content of everyday knowledge and examples	There is no distinction between specialised disciplinary knowledge and everyday knowledge

Lastly, the data pointed to another important aspect of classification that is relevant when looking at blended and online learning environments, particularly in the context of the COVID pandemic and its impacts, related to the boundaries between time and space dimensions. The COVID pandemic necessitated a shift to online and blended learning environments which thus detached much teaching and learning from the spaces of the physical university buildings, and from the time and schedules of the university timetables. The boundaries and classification between home and university space, and work/study time and home/leisure time were thus weakened. As mentioned in the section on framing over pace and sequence above, the weakened framing over pace and sequence and thus

greater student control and autonomy meant that teaching and learning could now take place outside of the physical university space and university timetable.

This aspect of classification is useful in understanding the many challenges and inequalities which arose, particularly in the early lockdown stages. The data points to challenges and inequalities around students not having their own private and quiet dedicated working spaces in their homes, having to complete their work late at night due to lack of space, access to affordable data late at night, access to hardware, privacy, and household or childcare responsibilities. Concerns arose regarding how to present oneself online when taking part in classes from home, and visual and aural markers of social class. By the same token, teaching staff also experienced significant challenges in having to work from home and work hours which extended far beyond their normal office hours. Staff reported the stress and burnout associated with having to always be available and 'online', and how boundaries around their work time and availability were often encroached upon. These aspects will be expanded on in the findings chapters but are useful to mention now given their role in developing coding frames for classification between time and space dimensions.

Table 11: Classification between time and space dimensions

	C++	**C+**	**C-**	**C--**
Classification between time and space dimensions	Time and space dimensions are strictly defined and bounded – e.g. teaching and learning only take place in specific spaces at specific times	Time and space dimensions strongly classified with some scope for deviations from the physical space and time restrictions	Time and space dimensions weakly classified with most teaching and learning taking place outside university space and timetables. Some boundaries imposed – e.g. online office hours	Weak classification of space and time dimensions – lack of boundaries between home and university space and time

The above coding frames were used to describe and classify the pedagogic practices in the four case studies and to map out pedagogic modalities for each case study. This will be further illustrated in the findings chapters.

3.8 Ethical considerations, positionality, and reflexivity

This study has received CUREC approval from the Department of Education, University of Oxford (CIA-21-261) – please refer to Appendix A. The study also underwent three ethical review processes with the participating university – approval to carry out the study at the university, approval to interview staff, and approval to interview students – please refer to Appendix B.

The main ethical concerns in this study included the anonymity of some participants and the broaching of potentially sensitive topics. The study did not collect any special category personal or demographic data from participants, such as race, gender, or socioeconomic status. I was cognisant however, that during the course of the interviews, it was possible that students' experiences of marginalisation and exclusion at the university, oftentimes stemming from race and socioeconomic status, could arise. Students were made aware of this within the informed consent and these topics were handled with care and sensitivity during the interviews. I chose not to broach them directly unless students brought them up first. Please refer to the information sheet for staff in Appendix C: Information sheet – staff, the information sheet for students in Appendix D: Information sheet – students, and the consent form in Appendix E: Consent form.

There were various considerations that informed my decision not to collect demographic data. It was important to confine data collection to only what was necessary to answer the research questions (General Data Protection Regulation, 2016/679). I was able to sufficiently address my research questions without collecting participants' demographic data. Indeed, rather than positioning my participants in demographic terms, I position them in terms of their roles as social actors in the pedagogic relationship, e.g. as students or academic staff, in line with the Bernsteinian approach I have adopted.

I would not have felt comfortable asking my participants to define themselves in demographic terms. One's identity and how they choose to define themselves (or not) can be deeply personal, especially in the context of post-apartheid South Africa where, for example, racial categorisations are contested

and complex (Houston et al., 2022; Posel, 2001; Adhikari, 2005; Liss, 2011). I also had to acknowledge my positioning as a white person working with predominantly participants of colour, which I felt made this probing inappropriate. In addition, I felt that rather than enriching the research, asking for demographic information may detract from the depth and vulnerability of our conversations. It was important to foster conversations where I was on an equal footing with my participants and acknowledged their expertise as experts in their own teaching and learning (MacDonald, 2012; Kemmis, 2006; White et al., 2004; Fielding, Lee, & Blank, 2017). I felt that it was inappropriate for them to be asked to define their demographic characteristics at my request (along with the vulnerability which may accompany this experience), especially as I was not displaying the same vulnerability. In the case of my conversations with students, there was already somewhat of a power dynamic to overcome given my age and role as a more senior student, who was on a first-name basis with their lecturers and course convenors. In some cases, students were initially unclear on my role and relationship with the teaching team, and thus the potential power dynamics.

I felt that if connections were to be made between experiences in the pedagogic environment and aspects like race or socioeconomic status, these should arise from the participants themselves and they should reflect on these intersections. This was an ethical consideration, as well as a consideration regarding the quality and authenticity of the data. Indeed, many participants were comfortable to share aspects of their identity with me, such as race, gender, and socioeconomic status, and were able to discuss how these aspects of their identity had shaped their pedagogic experiences in various ways.

Although teaching staff on several of the courses offered me access to student grades and suggested I may want to link students I had interviewed with their grades on the LMS, I decided not to do so. The reasoning relates to the aims of the research to engage with participants on an equal footing, with trust and respect. In line with the aims of my research and the ethnographically-informed approach, I also seek to understand the experiences of social actors within pedagogic settings from their own perspective, rather than via a grade which they are assigned.

All participant data and university names are anonymised in the study. I removed any references in the interview transcripts that could jeopardise this anonymity, e.g. mentions of the university name, its geographical location, the name of its LMS, as well as participants' references to their own personal information, e.g. which school they went to, names of friends and family, and where they are from. It is possible, however, that through detailed case study descriptions of the university and the programmes, the university and its academic staff may be identifiable based on contextual information. Academic staff were made aware of this in the informed consent, and the participating university also had access to this information during the ethical approval processes. Whether or not to assign pseudonyms to participant data was a consideration with which I grappled for months. I provide insight into my approach in this regard in the next section.

In terms of my positionality, I was an outsider to many of the marginalised students with whom I worked on this project. Many of these students have faced various challenges, both formal and epistemological, in gaining access to higher education, whereas I have been privileged in this regard. Through my social, cultural, and educational capital I experienced fewer obstacles in adapting and assimilating to higher education contexts that favoured 'traditional' students and was able to pick up on many of the implicit and 'unwritten' expectations of the disciplines within which I studied. Given our very different experiences and contexts, I was cognisant of the fact that I may misinterpret or misunderstand some of the experiences of the students with whom I was working. Even though we may live in the same country, or even the same city, some of their lives are quite foreign to me, and this is something I cannot take for granted at any stage of the research. This process has required careful reflection, research, reading, and conversations with fellow students and colleagues to gain multiple perspectives on my research.

During the field work I did some consulting work at the centre for teaching and learning at the participating university. In general, I found this enriched my research, as it allowed for a deeper understanding of the institution as a whole, its teaching and learning practices, and its use of online and blended learning, particularly at such a challenging and unique time in the country's higher

education history. The insights I have gained, even in informal engagements with colleagues, have been invaluable in deepening my understanding of the institutional context, as well as the broader South African higher education space. I have also been able to establish valuable professional networks, and these were helpful in reaching out to prospective participants. This work, in combination with previous roles in the South African higher education field, position me as somewhat of an insider in this research. While this did act as a resource in understanding academic participants' perspectives and experiences, it also required caution in making assumptions of shared experience without further probing.

3.8.1 Pseudonyms

The use of pseudonyms in social science research to protect the privacy of participants is common practice, yet there is little guidance available regarding how to select these pseudonyms, critical reflection on their use, nor transparency in research studies regarding how they were selected (Allen & Wiles, 2016; Brear, 2018; Lahman et al., 2015; Lahman et al., 2022). The very concept of naming is one laden with power dynamics, and names have personal, cultural, and political significance (Allen & Wiles, 2016; Brear, 2018; Lahman et al., 2022). Assumptions are made about individuals' age, gender, ethnicity, and socioeconomic status based on their names (Allen & Wiles, 2016; Lahman et al., 2015). The allocation of pseudonyms to research participants is just one of the features of often unequal and exploitative research relationships between researchers and participants. There is a history of cultural insensitivity and racism in this process of typically white researchers naming and representing participants of colour in the research that they control, particularly in the case of cross-cultural research (Brear, 2018). There are even arguments for participants retaining their real names in research studies in some cases to counter the paternalistic research relationship and support participatory approaches and agency (Lahman et al., 2015; Lahman et al., 2022; Brear, 2018).

This aspect of the research process thus requires consideration and reflexivity on how people are named respectfully, as well as reflection and transparency regarding researchers' own positionality and privilege (Allen & Wiles, 2016; Lahman et al., 2015; Lahman et al., 2022).

Initially I decided not to use pseudonyms for my research but rather to identify participants by their role as social actors within the pedagogic relationship, as is consistent with the nature of the study - I.e. 'student, physics case study', 'lecturer, commerce case study', etc. As explained in this chapter, I purposefully did not collect demographic data for several reasons and wanted participants to be positioned in these pedagogic terms rather than demographic terms. After more reflection and feedback from fellow students on my work, however, I did recognise the value of using pseudonyms to humanise the research to some extent (Lahman et al., 2015; Allen & Wiles, 2016). This left me with somewhat of a dilemma. Given the inequities in the research process discussed above, I did not feel comfortable with assigning names to my participants. Firstly, it would be inappropriate for me to come up with random names and risk 'whitewashing' my participants and disrespecting the personal and cultural significance of their names. This is a particularly pertinent consideration in the South African context where I am a white researcher working predominantly with participants of colour. Historically, people of colour have often been forced to adopt colonial-language names to access economic, social, and cultural capital (Brear, 2018; Lahman et al., 2022). During apartheid in South Africa, black people were often given English names that white people found easier to pronounce than their real names - one of the many ways in which black people's cultures and identities were distorted and disrespected (Barnes, 2012). Secondly, while it may be argued that it is best to preserve the cultural associations of these names, I am not best placed to determine culturally appropriate alternatives as an outsider in this regard. Finally, in any case, it was not the intention of the research to accurately represent the social, cultural, and other associations of these names as the study purposefully avoids defining participants in demographic terms. In most cases I did not know the various demographic characteristics of my participants as I had not asked for this information and cannot make assumptions in this regard.

Ideally these deliberations on pseudonymisation should occur in conversation with participants (Brear, 2018; Allen & Wiles, 2016). In my case, the ethics approval for my field work had expired by the time I began grappling with these questions and thus I did not have the opportunity to engage

with participants in these deliberations. In line with a socially just approach, however, I decided it would be best to offer participants the opportunity to select their own pseudonyms (Allen & Wiles, 2016). Only a few participants opted to select pseudonyms, and these are indicated in the data. In the case of the other participants that chose not to specify pseudonyms, their roles in the pedagogic relationship remain as their identifiers in the study.

Findings overview

The following chapters present the findings of the study. Chapters 4-7 detail the case study findings of the four case studies. The external language of description and coding frames presented in the methodology chapter are used to analyse these findings. Each chapter includes a coding summary table outlining the codes for the various aspects of classification and framing. Chapter 8, drawing from both the case study and exploratory pilot data, presents some common themes across the study related to experiences and perceptions of both online and blended teaching in learning in South African universities, and the approaches to and perceptions of ECPs.

Chapter 4: Social Science Case Study

The social science case study is a compulsory, credit-bearing first semester course for all first-year students on the extended degree programme in the faculty of Humanities. As the Humanities faculty at the university encompasses Humanities and Social Sciences departments, this course is taken by students doing both extended BA and BSocSci degrees. In 2022 the course was run as a 'virtual semester' as there were no in-person classes, and there were around 170 students on the course. The content is released weekly on the learner management system, and the 'live classes', as they are referred to, take the form of 45-minute classes on the LMS's chat room where students and facilitators engage via text. The course has a WhatsApp group with both staff and student members where administrative and content-related queries are addressed. There is no final exam for this course - assessments take the form of short weekly blog posts, reading quizzes, and essays (including essay drafts).

The aim of the course is to develop 'confident readers and writers of academic texts', providing students with opportunities to engage with academic texts and practise academic reading and writing. The course is described as writing-intensive, which is reflected in the forms of continuous assessment. The convenors mention that the need for the course emerged because academic writing at university is vastly different to writing in a high school context. The course draws on sociological concepts as a vehicle for students to develop their academic reading and writing, with a particular focus on the topic of identity which is woven into each week of the course content.

The findings in this chapter are based on interviews with both course convenors, a course lecturer, six students, and digital observations of the online course site that were carried out during the course.

4.1 Academic literacies in social sciences: Writer development

One of the main intentions of the course is to make explicit the traditionally unspoken assumptions and expectations regarding academic literacies valued in academic reading and writing in the university context, particularly in Humanities and Social Science disciplines. While all students may struggle in some ways with the transition from high school to university and its accompanying academic expectations, students on the ECP are generally from disadvantaged home and schooling backgrounds, and are often first-generation students, and thus may not have the same informal opportunities to gain insight into this hidden curriculum. Many students enter universities ill-equipped to navigate many of these unspoken academic expectations. In most university courses, particularly those in the Humanities and Social Sciences, students are expected to have not only a firm grasp of the content and concepts of the course, but also how to read, write, reference, or communicate in ways that are considered acceptable in that discipline. While the content and concepts may appear prominently in the course outline, learning objectives, or assessment instructions of many of their courses, the expectations regarding academic literacies are often left implicit. This course aims to pull back the curtain on some of these valued academic literacies and how to engage with them.

The teaching team note the importance of embedding academic literacies within the teaching of the concepts, rather than as decontextualised, generic skills – an approach supported in much of the academic literacies literature (Wingate, 2006; Durkin & Main, 2002; Ellery, 2017b). This approach is evident in the live class chat rooms as the readings are used as a vehicle to model and explicate valued academic literacies.

> *What we teach is… the academic writing conventions of the academy...*
>
> *...we try to get students to engage with those conventions in a meaningful way, not in a decontextualised way, what I mean by not a decontextualised way is we get academic literacy courses where students are taught kind of like skills stuff, like how to write a paragraph and it is decontextualised, what we have done with this course we teach the course using social science content...*
>
> *(convenor 1)*

***

> *Very often you know people want to zone in on the skills, but you can't teach skills in the absence of content.*
>
> *(lecturer)*

In the week 4 live class, for example, when discussing the reading, the facilitator uses this as an opportunity to illustrate appropriate referencing practices.

> *We often indicate our sameness and difference to others, by way of "symbols" (Woodward, 2004: 7) [This bit in brackets here, is the reference format you will use in your essays: Woodward is the author, so she is mentioned by surname only, 2004 is the year of publication, and : 7 = the page number – please note that we do not put 'pg' down – instead we use a colon - : - to indicate page number.]*
>
> *(live class chat room)*

By demonstrating appropriate referencing in the context of the reading with which students are currently working, the guidance is embedded in the disciplinary pedagogy rather than being offered as a generic and decontextualised 'skill'.

Often readings or discussions are referenced to illustrate or model valued writing practices. In the Week 3 live class, for example, the facilitator uses one of the core course texts to illustrate these valued writing practices by noting how the author introduces and contextualises her points, references real-life examples to which the reader can relate, draws the reader in by posing questions, and uses headings and numbering to improve readability. In the Week 5 live class, where the facilitator details the features of a well-constructed paragraph, he selects a paragraph from the aforementioned reading and describes how each section of the paragraph displays those features. In Week 2, students' own contributions in the live class are used by the lecturer to demonstrate the importance of elaboration and providing examples in 'good' academic writing.

In interviews with the students, it is evident that this course has been effective in illuminating many academic literacies with which they were not familiar, such as constructing an argument. These explicit academic literacies were valuable in developing their academic and writer identities.

> *Yes, I'm more confident writing. Like my style has definitely improved, and it's helped me in terms of other courses, how do I tackle the reading, how do I introduce the authors, how do I cite my work, everything...*
>
> *(student 6)*

In a study of first-years academic literacy practices, Kapp & Bangeni (2009) found that students often struggle to strike a balance between drawing on personal experiences and developing an authorial voice, while also referencing appropriate authoritative sources and theory within a discipline. Indeed, developing one's authorial voice is a key challenge in a student's university experience, and can be intimidating and overwhelming, especially for students coming from educational backgrounds where they are trained to defer to the authority of the teacher and rote learn the content that is presented to them rather than interrogating or critiquing it (Ellery, 2017a; 2017b; Kapp et al., 2014; Kapp & Bangeni, 2009; Arend et al., 2017; Boughey, 2005; Hurst, 2015).

In the below extract, this student shows a recognition of academic literacies that are valued within this course – namely being able to take a stance and critique the work of various authors. While the student has developed her authorial voice during the course to the extent that she feels comfortable enough to critique the work of an established academic, this stance is in fact in opposition to her personal beliefs. In this sense her grasp of academic literacies is sophisticated enough to be strategic, and 'play the game' of academic writing in order to do well in the assessment.

> *Sometimes, even though you believe in some things... Ok, the word count is high, right. Because now I'm used to 300 word essay in high school. So now I get here and it's 1500 to 2000. Like, for example, you know I told you I'm a pro-black activist right? So obviously I believe [Ngũgĩ wa Thiong'o], like I mean... ja. But now for the sake of the word count and like since I can say more words if I say no, I'm not with him, then it was easier…*
>
> *(student 5)*

While in general students felt that this course helped their writer development which was applicable to their other courses, they also developed an awareness of academic literacies in different disciplines which helped them to recognise disciplines in which a stronger authorial voice and a focus on one's own identity and personal opinions were not as valued.

With my other courses in terms of theatre it was like I'm writing based on what I'm given, the brief, you need to stick to the brief. Media I need to stick to the brief. But [this course] it's all about me...

...As much as I need to refer to other authors, but I need to strengthen my essay based on my identity.

(student 6)

*****

...I don't feel like I brought my own identity or what I think about that topic much on the psychology course. It was all about facts, facts, facts, not really what I think.

(Lotus, student)

One can thus conclude that the epistemologically powerful forms of knowledge in this course, as well as disciplines within the humanities and social sciences, relate to academic reading and writing literacies. These include aspects such as constructing an argument, developing authorial voice, elaborating, critiquing, drawing on relevant literature, and referencing. It also includes developing an awareness of how academic reading and writing expectations, particularly in relation to authorial voice, differ from one discipline to another. These valued literacies are modelled by the teaching team in online spaces, like the live class chat room, which offers affordances in this regard in enabling modelling via writing in real time, as well as the ability to address questions as they arise.

The course draws on various pedagogic strategies to support students' development as academic readers and writers, and to address some of the common challenges that students face in their writing, such as developing their authorial voice. The teaching team took creative approaches to these pedagogies mediated in the online environment, such as via blogging and live classes in the chat room. This section explores these strategies and the affordances and limitations offered by the online learning environment.

In this course, informal, low-stakes opportunities to develop one's authorial voice and to practice integrating theory and one's own views are provided in the form of the live classes in the chat room and the weekly blogs. Students are often encouraged to draw on their own lived experiences, knowledge, and perspectives during the course. In fact, one of the underlying principles of the course

is ‘don’t leave yourself at the door’ and the teaching team aims to value students’ voices and knowledge.

The blogs are used as a space for formative writer development, in a relatively informal, low stakes manner, particularly given the typical way in which online blogs are used – as an online journal, or an informal space to share thoughts and ideas – very different to the formal academic essays also forming part of the course. Tutors working as blog respondents on the course provide weekly feedback on students’ writing development. The blog is referred to as a ‘rehearsal space’ in this course, particularly a rehearsal for the essays, but also a rehearsal space for developing one’s academic writing and authorial voice in general. The low stakes nature and informality of the blog space is evident from the first live class, where the facilitator advises:

> *write freely. It must probably be the first time since school that you are being given that license to write as you please* 😊
>
> *the format for now is....JUST WRITE*
>
> *(live class chat room)*

This message is reinforced throughout the course as teaching staff remind students to use the blogs as a developmental space to work through their thinking and reflect on their own experiences.

The blogs also provide a means for peer-to-peer feedback and collaboration as students often comment on or critique each others’ work.

> *Putting my blog public, I don’t think I had a problem with that. I actually felt good expressing my views and knowing that other people can see what I think and what I feel.*
>
> *And I also enjoyed reading some blogs if I had time from other, my peers to see what they think of identity. I think I saw it as a space where we would engage and bring our ideas together and express our different views.*
>
> *(Lotus, student)*
>
> ***
>
> *...we will question each other’s writing.*
>
> *It’s like we are exchanging knowledge.*
>
> *...both of us publish it online, so she will post, and I will go and read, and I will take some notes, then I will post, she will go read, and then take some notes, and then we come and we*

have a surgeons where I'm like ok I've gone through your blog, what stood out for me is this, what I wish you could have improved on was this. She will also do the same.

(student 6)

Teaching staff also encouraged peer support and engagement on the WhatsApp group, and this space allowed students to take on different roles within the course, such as informal mentor, information giver, or knowledge broker (Baguma et al., 2019; Rambe, Chipunza & Ng'ambi, 2020).

...students are not waiting for the lecturer necessarily to reply, they waiting also for students to reply. Sometimes I purposefully don't reply and see what comes up in the WhatsApp group when the student poses a question.

(convenor 1)

The teaching team perceives the online space to be an experimental one – both in terms of writing but also in terms of their pedagogy. They felt that this was an affordance for the course where students are encouraged to experiment with different forms of writing. Blogging is generally used as a more personal and informal means of expressing oneself online and is thus well-suited to the development of authorial voice.

Blog space – students can play around with different ways of writing, a place to exchange ideas. It is a kind of intermediate space before the formal assessment happens, like an academic essay.

(convenor 1)

***

The virtual space is, it's an experimental space to a large extent because they are able to sus out what they can and can't say.

(lecturer)

Frequent and low stakes opportunities for students to showcase their writing, such as in the live classes and blogs, allowed the teaching team to get an instant, real time snapshot of students' understanding of the concepts, and the ways in which they were expressing themselves via writing. This was beneficial for the teaching team in that they could address any issues or misunderstandings in a formative space.

...so we are able to get a snapshot of how people are engaging with the material instantaneously as we are posing the questions rather than waiting for them to write an

essay for us to see whether they understood the content or not. That was not always possible in the face-to-face space...

...because we are not just testing their understanding of the concepts, we are also looking at how they communicate that understanding through writing.

…the online space allows us to see the kinds of phrasing that they are using... The way in which they communicate their ideas is something we can then begin to address from an early stage, before they write their essays.

(convenor 2)

Interestingly, the blog space is also seen by the teaching team as an area where institutional norms in terms of valued academic writing can be challenged. They see senior students and tutors as an important vehicle for shifting these institutional and academic norms. As the next generation of academics, these students can play an important role in shaping valued literacies and knowledge, and perhaps contribute to the decolonisation aims at the university.

Because blogging is not like writing a formal essay, students can experiment with different kinds of writing which we encourage, and we encourage our blog respondents to give the space for that. If you see students quoting a poem or talking about a news report, or using a different genre and bringing it into the blog space we ask blog respondents to encourage that and to see how students experiment with different kinds of writing, and how that could be valued within the institution. Part of the course itself is to get students to write differently and to get the blog respondents, almost like tutors, to think about academic writing differently. It is not just about teaching students, it is also about teaching tutors who are doing PhD, Masters, Honours, to think differently of academic writing, that there are different ways of writing academic papers. Those are affordances.

(convenor 1)

The COVID period necessitated tutors taking on more of the teaching and support load in shifting online, and their important role in these courses is acknowledged.

Students were aware of the distinction between the blogs and the formal academic essays and, while they perceived the blogs to be a space to share one's own opinions, free of the academic conventions of formal essay writing, they still felt that these spaces supported their academic writer development overall. Rather than simply teaching academic writing conventions, the blogs, live classes, and other activities on this course were used to allow students to develop an authorial voice that they then incorporated into their academic writing. The blog tasks helped to foster not only writer identity, but also to explore personal identity given the theme of identity running through the course.

So, the blogs were just free flowing, to draw from own experiences and then the academic essays are formal and has structure.

I don't think it just helped the reader understand who I am, but also just helped myself to reflect on who I was, so it brought out different stories that I wouldn't tell like on a daily basis. It helped me share different stories.

(student 1)

***

...it helped me a lot with content, and also taking a stand. In sociology we are not taught to take a stand. But automatically, if you doing sociology, you need to pick a side. If you are doing politics, you need to pick a side. So, this was a good practice of that.

(student 5)

While the students were able to recognise the varied expectations across different forms of writing in the course, particularly the blogs and the academic essays, they still experienced the transition from blog writing to essay writing as a significant jump – reflecting on going from the freedom of the blog writing to the more constrained academic conventions of the essays.

Given the lack of restrictions for the blog activities, and the indistinct guidance, particularly in the early tasks to 'just write', framing over evaluative criteria (explicit/implicit dimension) for the blogs can be coded as F-. For the control dimension over evaluative criteria, however, marking and feedback is wholly determined by the teaching team and blog respondents, with no input from students in how they are assessed, and thus can be coded as F++. As discussed in the section above, the weak framing over evaluative criteria (left mainly implicit) is an intentional strategy by the teaching team to encourage freedom, experimentation, and the challenging of institutional norms in students' writing, thus supporting their writer development, and particularly their authorial voice. The difficult transition experienced by students from the freedom of the blog posts to the constraints of formal academic essay writing indicates that this transition could perhaps be better scaffolded and supported via stronger framing over evaluative criteria (explicit/implicit dimension) at necessary points in the course.

Attempts by the teaching team to weaken classification between the course and students' everyday lives are important ways in which the development of authorial voice is fostered, and students' sense

of belonging and epistemological access to the institution are supported. One of the underlying principles of the course - 'don't leave yourself at the door' - encourages students to draw on their own experiences and knowledge to navigate academic practices. Examples from the South African context are also drawn on in the course to illustrate concepts including references to recent protests on campus, ongoing xenophobic attacks in the country, and local educational contexts.

In the Week 5 live class the facilitator uses an example that may resonate with many multilingual students in the class of a study on the language socialization experiences of a child in a black South African middle-class multilingual family. The facilitator in the live class then prompts students to link the findings from the study to the theoretical concepts with which they are currently working, including socialization, and structure and agency. The importance of being able to integrate one's own views with the academic theory and concepts is addressed repeatedly in the live classes.

> *...you have to theorize your experiences. So, your writing will include your personal experiences but also how those personal experiences can be spoken about differently when using the language and theories of the social sciences.*
>
> *(live class chat room)*

In the week 2 live class the facilitator references the discussion as a way to illustrate to students this valued academic literacy practice of being able to integrate one's own voice with other sources.

> *When we spoke about what is good writing, we each brought our own perspective to the table. It was only when we considered various perspectives, that the idea of 'good writing' became richer and more comprehensive.*
>
> *As writers of academic texts/essays we are always required to communicate to the reader what others have written on the same topic that we are writing on. In other words, we must give an account of what has been written before we decided to sit down and write about the same topic. By doing this we can show what has NOT BEEN WRITTEN about the same topic... This then expands on the perspectives that already existed.*
>
> *(live class chat room)*

In the live classes students are first prompted to share their own views or understandings on topics related to identity, society, academia, among others, the theory is then introduced afterwards, and, via modelling, the teaching team is able to demonstrate to students how to integrate their own perspectives with the theory while not losing their positioning or authorial voice in the process.

Students often struggle to distinguish between the voice of the lecturer in class, the author of an article, and the other authors that are referenced in that text, perceiving them rather as one single-voiced truth (Boughey, 2000), and subsequently struggling to juxtapose personal perspectives with the views of experts when it comes to writing academic texts (Eybers, 2015). As the teaching team indicates, this positioning and authorial voice is an integral part of strong academic writing. While other courses may start with getting students to a point where they are well-versed in the theoretical concepts and then prompting the development of an authorial voice or positioning later, this course (via weakened classification) starts with authorial voice and positioning which is then refined in relation to the theory.

This weakened classification was used intentionally to support students' epistemological access and also for the teaching staff to challenge a deficit discourse within the institution with the goal of valuing marginalised students' existing knowledge.

> *So, it is reworking the autobiography using social science concepts eventually. That's part of the way we try to develop students' writing identities, is to value what they bring to the institution.*
>
> *...there is a value in terms of using students' life histories to get them into academic discourses and to access the knowledges that are valued within the institutions.*
>
> *(convenor 1)*
>
> ***
>
> *...we would draw on students' understandings of a particular concept before introducing what the reading was talking about and already through that what I was gesturing was the fact that I want to hear what you have to say about this concept, and it is part of our learning experience together. So already the messaging was quite strong, as [convenor] was saying, don't leave yourself at the door, don't leave behind the perspectives that you are bringing and who knows, maybe you could put those conversations with the theory that we are going to be introducing to you, because that is what then allows for positioning. That is so key to students' writing and a good essay, is them taking a position.*
>
> *(convenor 2)*
>
> ***
>
> *...we start off with students in terms of what they already possess and what they know something about, which is their identity...*
>
> *(lecturer)*

This relates to an overarching aim of the course to provide social support for this often-difficult transition for students into a historically white, Western university environment.

> *...building up not only a sense of community, but a sense of belonging. Keep in mind these are all black bodies at a historically white institution, that sense of belonging and location within the institution I think is hugely important. And you know just giving them the confidence to walk down the aisle and the passage with their head held up high saying to themselves I actually deserve to belong here. So, there's an empowerment discourse that's sort of part of the hidden curriculum and which you make visible in different ways by getting them to express themselves in their writing.*
>
> *(lecturer)*

Through these reflections, the teaching team alludes to the reshaping of the university's institutional culture, both in terms of the people who should be considered legitimate members of the institution, and what forms of knowledge are valued within the institution. Given the current focus on decolonisation at the institution, these efforts are well aligned to this purpose, although there is some discord among the teaching team regarding the extent to which they challenge established institutional norms. The teaching team does, however, find themselves in a somewhat contradictory position of supporting their students in gaining access to the powerful knowledge of the institution, while simultaneously challenging how that powerful knowledge is defined.

While African authors are drawn on in the course, and topical issues related to South Africa are used as the basis for discussion, the course still rests largely on the more traditional, Western schools of thought and theorists in disciplines like sociology and psychology, such as Marx, Jung, and Freud. The teaching team explains the importance of valuing what students bring to the institution and the principle of 'don't leave yourself at the door', however it is evident from the data above that students' own knowledge is often positioned as secondary to theoretical knowledge. Indeed, the integration of students' experiences and knowledge in low stakes contexts like the live classes and the blogs is used as a pedagogic strategy to scaffold students in their writing and authorial voice to eventually engage in the high stakes academic essay writing characteristic of traditional academic practice. This is evident in the teaching teams' positioning of the blog as an informal and

experimental rehearsal space, while the formal academic essays are used as summative assessments, making up the bulk of students' course grade.

As one of the course convenors explains, students' life histories are used in service of accessing the powerful disciplinary discourses, and the knowledge valued by the institution remains positioned as dominant.

> *...there is a value in terms of using students' life histories to get them into academic discourses and to access the knowledges that are valued within the institutions.*
>
> *...there are certain skills and tools, and certain practices rather that are more valued at the institution. So, we are just familiarising them with those that are valued so that they can practice those or negotiate them with the practices that they come with, and we do share with them how they can also draw on what they bring along, but re-package it in a way that will be valued by the institution.*
>
> *It is important to not keep them in some kind of illusion that somehow, they would be able to just draw on what they have brought along. It definitely has to be repackaged.*
>
> *(convenor 2)*

In terms of challenging the conventions of the academy the course may thus not be as radical as alluded to by some members of the teaching team, but this is not necessarily a drawback for a course in which the key aim is to support students' access to other disciplinary communities within the institution. Students certainly appreciated and enjoyed how their own experiences and knowledge were valued on the course and how learnings from the course could enrich their understanding of their own lives and contexts.

> *Honestly, like growing up, I lived in a very diverse community so like we had different views on culture so like, this topic really opened my eyes in terms of stating things I didn't even realise...*
>
> *(student 3)*
>
> ***
>
> *I was confident in saying my answers whether they were right or wrong, because they would tell us 'don't leave yourself at the door'.*
>
> *(student 2)*

Students did, however, experience the transition from blog writing to formal academic essay writing as a significant one in terms of expectations. They quickly developed the awareness that their

opinions and experiences were not valued in the same way in their other courses, as mentioned in the previous section. While the weakened classification between the course and students' lives and knowledge were perhaps not helpful in setting expectations for their other courses, it was a unique and effective way to foster the development of authorial voice. Students demonstrated an awareness of the varied expectations across these different types of writing and saw blog writing as helping them to develop formal academic writing.

Classification between the course content and everyday knowledge and examples is coded as C- given the integration of the everyday in the course content and the encouragement from the teaching team for students to bring in their everyday knowledge and experiences. A code of C - - would not be appropriate as there is still a clear distinction between the specialised disciplinary knowledge (in the form of social science concepts) and everyday knowledge.

To develop their academic writing and authorial voice, students require low stakes opportunities to practice and experiment with their writing. The nature of the blog space – formative, experimental, rehearsal in nature – offers an affordance in this regard (Arend et al., 2017), in combination with the tasks set by the teaching team that encourage this freedom and experimentation. The teaching team felt that to develop authorial voice, students also needed to be encouraged to bring in their own thoughts, experiences, and knowledge. They capitalised on the features of the blogs, as an online personal journal space, as well as the chat rooms, in their informality. They developed spaces that allowed for vulnerability, encouraged student engagement, and modelled the integration of one's own views with theory in real time. The weakened classification between the course content and everyday life was thus well suited to these spaces. In terms of hindrances, however, the free and unrestricted nature of the blog space, in combination with the teaching team's reluctance to impose any restrictions or stronger framing over evaluative criteria, resulted in the transition from blogs to academic essay writing being insufficiently scaffolded for some students.

4.2 The role of the teaching team and hierarchical rules

An affordance of the online space in supporting the above aims in terms of students' epistemological access and writer development is that spaces like the live class chat room and the course's WhatsApp group, do flatten hierarchy to a large extent, given the absence of physical markers of hierarchy usually present in a contact class. Unlike in a lecture hall, for example, there are no physical markers of hierarchy between facilitators and students in a chat room. Profiles of both facilitators and students are displayed on an equal footing in the chat room, and every person has the same permissions in terms of contributing, so that no one has a louder, or more prominent 'voice'. This allows for a more informal, low-stakes space for students to develop their academic writing and authorial voice. Similarly, online blogs are generally considered to be informal and personal digital spaces - an appropriate format for students to develop their academic writing and authorial voice in an informal and low-stakes manner.

There was evidence of attempts by the teaching team to weaken framing over hierarchical rules in the live classes by using informal language, making jokes, using emojis, and sharing personal anecdotes. In addition to casual and playful communication, the teaching team is also supportive and encouraging. The facilitators often make encouraging remarks to students directly, such as 'excellent example', 'very good analysis', 'well done', and 'gold star for you 😊'. The teaching team takes on a pastoral role in addition to their academic role and they remind students at various intervals that they are here to support them. In the Week 6 live class, close to the middle point of the semester, one of the facilitators asks the class how they are doing. A number of the responses from students mention that they are tired, stressed, and want to go back to their home towns. The facilitator takes this opportunity to offer words of support and encouragement, and also displays vulnerability as a way to connect with students:

> *stress is part of being a scholar....But stress isn't forever. It does come to an end.*
>
> *...yes when things get tough we sometimes want the safety of familiar surroundings! I also tell people: I sometimes get very tired of playing clever (people expect me to be clever as a lecturer) :-)))*

Yes, believe or not i do get tired "acting" intelligent ;-))))

So i do know that at this time things do get a bit hectic at [university]....assignments due, tests etc. But remember that [university] would not have given you a place if it didnt believe that YOU CAN PASS! So persevere!

Persevere people, it will be worth it in the end.

(live class chat room)

Interestingly, while students felt supported and comfortable with the teaching team, they still perceived these relationships as quite formal lecturer-student relationships. When I asked one of the lecturers to reflect on the teaching team's strategy regarding hierarchical relationships, he commented that creating a sense of friendliness and familiarity is important to ease students' transition into the university space, and the online environment offers an affordance in this regard due to the flattened hierarchy. He did express, however, that it was not possible or desirable to completely flatten this hierarchy. So, while there is evidence of weakened framing over hierarchical rules, there is not an absence of hierarchy.

But I don't think it's ever going to be possible to quite get rid of the hierarchy because at the end of the day we are their lecturers, they are our students, they are learning from us, so even in a space like a virtual space where the hierarchies seem to be sort of more flattened, I think that hidden behind all of that is still a hierarchy.

...whatever students are learning, however they are making sense of that learning, you still need to have someone at the end of the line creating some guidance and structure for the type of learning that's taking place.

...I think in the face-to-face classroom the hierarchy is much more evident, because you are at the front of the class... In the virtual space all you have is this flat space where you writing on, and so trying to create a particular type of atmosphere takes on a number of complexities that are not there in the face-to-face, because in the face-to-face it's visible.

(lecturer)

Bernstein (1990) argues that the relation between transmitters (teachers) and acquirers (students) is inherently asymmetrical, but there may be strategies for hiding or masking the asymmetry. In the case of this course, efforts to mask this asymmetry are intentional in order to create a comfortable and relatively informal learning environment, thus supporting epistemological access. The comments above indicate that while the online environment may be inherently less hierarchical, one still needs to make a conscious effort to create the kind of atmosphere one is aiming for, e.g. through the use of

tone, emojis, personal anecdotes, etc. The atmosphere of friendliness and familiarity that the teaching team has managed to create in the live classes, WhatsApp channel, blogs, and so on, helps to ease this difficult transition for students, and offers a more informal, experimental space in which to develop one's writing and authorial voice. This is reflected in student responses as they feel comfortable, supported, and safe enough to make mistakes without fear of judgement. Even removing the expectation of formal communication in English can support epistemological access, as expressed by this student in one of the interviews:

> *We didn't write dear m'am on WhatsApp. It would be @ [convenor], then we type a question. So I felt like it was more casual, and more comfortable, you know. Because even us, you know, we didn't do English as our first language, so like obviously it would have been hard for us to reach out, dear m'am. Ja. So now it's way more easier when we are just like hi, then you ask a question.*
>
> *(student 5)*

While the facilitators' communication with students is oftentimes casual and supportive, they do not shy away from challenging students and prompting them to think more critically. It seems that this 'strategy of discomfort' is an intentional pedagogic strategy, as reflected by one of the teaching team:

> *Also, there is quite a lot of complex engagement in the chat room. Students asking questions and moments of real discomfort...*
>
> *And that's what we do, we push them into what are quite often very discomforting spaces where they need to confront issues of language, or difference, or change, or discrimination etc.*
>
> *(lecturer)*

Below are a few examples of these challenging prompts from the live classes:

> *all too broad thus far! Zone in a bi tmore - be specific. Look at who Woodward is.....*
>
> *do you really have a choice in your upbringing?*
>
> *maybe too broad - I will need key points as an anchor*
>
> *far too abstract. I woul dnot know if this is about ID???*
>
> *you are being to basic expand further on that*
>
> *(live class chat room)*

One of the lecturers poses an interesting challenge to a student when the student states that they do not consider race a significant part of their identity.

keep processing. I guess we are all impacted by "race" - that fact that we are all taking this course and are al on the extended degree programme has everything to do with race. So done underestimate the power and influence of 'race' - its there!

(live class chat room)

The trust and familiarity fostered over the semester in these online spaces allow for challenging conversations without students feeling intimidated. Despite the strategy of discomfort, in general students perceived the live class chat room to be a safe and supportive space in which they could be vulnerable and were not deterred by the challenges from their teaching team. Overall, students' experience of the course was very positive, and this was due in large part to how supported they felt by the teaching team, commenting on how responsive they were across online channels like the WhatsApp group and the LMS.

I just loved [the course], oh my word, it's the best (laughs). I wish every course could be like [this course], honestly.

(student 1)

***

...they were really supportive. Sometimes we would tell them our struggles, like about school load and all that, and they were really supportive. They told us to just hang in there. They told us they will be there for us and all that. And they gave us the best advices ever.

(student 3)

The online environment flattens hierarchical elements, but both students and staff are still aware that the student-staff relationship is inherently asymmetrical in its nature, and thus framing over hierarchical rules (control dimension) is coded as F-. The framing over hierarchical rules (explicit/implicit dimension) is also coded as F- as the teaching team does intentionally mask hierarchical elements to create a comfortable learning environment in which students are not afraid to be vulnerable, experiment with their voice, and identity, and engage in debates.

Developing one's academic writing and authorial voice requires a space in which one can be vulnerable. Sharing one's own views with confidence and on an equal footing with the voices of others, especially when this was not a practice encouraged in a school setting, can be intimidating. The affordance of the online learning environment in being inherently non-hierarchical, in

combination with the teaching team's efforts to foster support, friendliness and familiarity, as well as demonstrating their own vulnerability, was effective in supporting students' access. Once this trust was established, students were comfortable in being challenged and prompted to think more critically – an important strategy in developing academic writing and authorial voice. There was not a complete absence of hierarchy, however, and, in any case, this would not be desirable as the teaching team still plays an important role in providing structure and guidance.

4.3 Looping back pedagogy: circular sequence and permanent online records

An important aspect of the course, both in terms of the development of students' academic writing as well as their development of their own sense of identity, is the emphasis on reflection and looking back. The blogs are positioned as 'looking back activities' in the course and students are asked to revisit their blogs weekly through the lens of new concepts, sometimes being asked to select an older blog and write about how their thoughts have developed since writing it.

Similarly, students are sometimes asked to refer back to previous live class discussions to reflect on these. A circular and reflective sequence is presented in this course where students are expected to continuously look back and reflect on previous work and build on it. The course convenors describe one of their pedagogic strategies on the course as a "looping back mechanism". They view the development of writer identity as an iterative process, where students need to have continuous opportunities for reflection on previous work. The blogs act as low stakes, informal writing spaces that students can refer back to as they work through the course. They can refer back to both their own writing and the blog respondents' feedback and thus track their writer development through this permanent online record. The digital space thus offers another affordance to support the pedagogic practices on this course. As this space allows a permanent online record of all blogs and discussions, students are able to easily engage in this circular reflection process in their own time and at their own pace.

> *Someone may make a comment in class, but it gets lost because it is not recorded. The blog space itself allows for that recording of interactions. And students can look at those, not just their own, but others' responses and juxtapose those against their own and start making sense of it. That's one of the affordances.*
>
> *...a moment in time that students can go revisit again...*
>
> *What we call this looping back mechanism has become more prominent in the last say four years because of the online space and where we can actually say to students, remember in Week 1, now can you go back to that blog, and now write something on identity. When you came in you thought of identity as this but now four weeks down the line you now think of identity as... now write something different.*
>
> *(convenor 1)*

The teaching team acknowledges that this permanent digital record enables weaker framing over pace and sequence (and thus more student autonomy and flexibility over pace and sequence) as students can revisit aspects in their own time – an affordance students appreciated as well. This is also helpful in addressing the challenges of pace in the live class.

> *Of course, even the live session happens at quite a fast pace because it happens over 45mins, but the beauty of it is that students can come back to that. The chat room is a transcript in the making, and you can come back to it, and they can revisit their thoughts and add to it.*
>
> *(convenor 2)*

As much of the content is made available on the LMS ahead of the live classes in an asynchronous format, students can work through this content at their own pace, and prepare questions in advance, reducing cognitive load (Swartz, Gachago & Belford, 2018) in the synchronous sessions.

In this quote, one of the convenors links the importance of reflection, enabled by the online space, with epistemological access for first year students.

> *...so reflective component in the blog, getting them to reflect on their learning number one, we get them to think about what it is they've learnt during that week, and we getting them to write about it at the same time. And I think those are three crucial skills just in terms of preparing first year students.*
>
> *(lecturer)*

Students recognised the importance of reflection on the course and also valued the ability to revisit elements in their own time. In a contact space these engagements are often ephemeral and are lost without a permanent digital record. In the interviews, all students commented on the value of being able to look back on content, not only in terms of the blogs, but also the record of the live classes on the chat room, and other online course content. This was also beneficial for students who struggled to keep up with the synchronous live class sessions when they occurred. In this sense students had some autonomy over the pace and sequence of their work, reflecting weakened framing.

> *...each and every essay question they would be like go back to your blogs and then read them so that you can answer those essay questions. The blogs really helped.*
>
> *(student 2)*

***

...online is not really bad because I can take notes easily. If some things I forgot them, I could go back to the things we were discussing on our [live classes].

(student 3)

This student points to the value of being able to revisit previous classes at one's own pace and sequence after time has passed and one can gain a greater appreciation for the topics covered:

I think that actually helped me a lot in terms of going back. Because the time when you are still learning and doing the work there are many things that you haven't had questions about them, so you just learning in terms of ok I am attending a class, when they ask this question, I will answer like this. But when now it's time to write my work then I'll be like no I need to revisit...

(student 6)

The permanence of the online record also allows for an online 'lurker' role in spaces like the WhatsApp group and live classes and students commented on the value of being able to see and benefit from interactions happening in these online spaces even if they did not actively participate themselves. The teaching team acknowledges that the role of quiet observer or active reader can be hugely beneficial for learning. Indeed, active reading may be considered a key academic literacy in many humanities and social science disciplines, for example. In addition, it is important to consider that student characteristics and behaviours are socially and culturally shaped. There are certain behaviours that are valued in individualistic Anglophone educational contexts that may dismiss or devalue quiet contemplation and deference (Gourlay & Oliver, 2016).

Sometimes the people who speak a lot are not necessarily learning because they are kind of acting on a prompt and responding immediately. You get the other students who are sitting back quietly and then you are amazed at what they write, what they produce when the essays come in. And then you say ok this student might have been silent in the classroom but there has been a lot of learning happening. There is engagement. Engagement is not necessarily posting. Engagement is also reading.

(convenor 1)

***

...very often those ones who sit back are the ones in fact who actually learn the most, because they become active readers.

(lecturer)

When describing how the teaching team would facilitate live classes, one of the students says that they would "start by going back", encouraging students to revisit previous work in preparation for the

classes. The circular and reflective sequence was made quite explicit and, in this case, the online modality offered an affordance in allowing for a permanent record of classes, content, and student work that students could revisit at any time given weakened framing. The ability to reflect and build on previous work, an important academic literacy in writer development, was thus well supported in the online space.

4.4 Pace and sequence

Flexibility in pace is often considered one of the key affordances of online or blended learning environments. Using the example of asynchronous online discussion forums, Arasaratnam-Smith & Northcote (2017) present a concept they call 'time for reasoned response', arguing that in these spaces students have the opportunity to carefully form their thoughts before sharing them with the group. The authors argue that because students have time for reflection and can present thoughtful and considered responses to one another, the asynchronous online discussion forum can in fact allow for more in-depth discussions, without the time constraints of a traditional contact class (Arasaratnam-Smith & Northcote, 2017). Lecturers too have time to provide reasoned responses to student questions rather than 'thinking on their feet' and could also provide responses to all student posts - affordances that are also generally not feasible in a contact class (Arasaratnam-Smith & Northcote, 2017). It is interesting that in this course fast-paced, synchronous discussions have been used (hundreds of contributions are made to the chat room in the space of the 45-minute sessions), and the opportunities for 'time for reasoned response' provided by asynchronous formats have not been utilised, although students do have this time for reflection in their blog activities and other assessments. Academic writing in the Humanities and Social Sciences is generally slow-paced with ample time for reflection, research, and refinement so it is interesting that these opportunities for asynchronous online discussion have not been taken.

Although much online learning is generally weakly framed in terms of pace, the live classes display strong framing over pacing given their time-bound nature. This strong framing is also evident in how facilitators often use these sessions to go through the asynchronous course material in a synchronous manner. In some of the sessions, for example, the facilitator will give the students a set amount of time to go to the lesson page for that week to watch a video or read a few paragraphs of the reading before returning to the live class to discuss this material.

While the facilitators sometimes guide students through the static online course material in a synchronous manner, students are also able to access this material and work through it at their own

pace. The content is structured into weekly lessons pages which feature sequential learning paths on each page. Instructional text provides guidance on the suggested sequence of learning (e.g. which tasks should be completed on which days) and the suggested pace of learning (e.g. time estimations for tasks). At some points students are advised to pause a video, for example, to jot down significant extracts. Students' self-regulation and self-directed learning is thus guided and scaffolded. Students are also able to re-visit the live class chat rooms to go through the discussions at their own pace and, as mentioned previously, this reflection and re-visiting is encouraged in the course as well as being supported by the digital record. The course thus demonstrates a mix of stronger and weaker framing over pacing at different points.

Later in the course the teaching team starts to provide summaries/consolidations of the live classes in addition to encouraging students to go back and re-visit the class discussions. This is likely to be a helpful additional resource for students given that the average chat room has about 1300 messages as all groups use the same chat room each week. Not only would it be time-consuming to sift through all these messages, but students are likely to need the support of the teaching team in highlighting the most important insights from these classes. Being able to sift through large chunks of information and extract the most significant insights is an academic literacy that these first-year students would likely appreciate seeing modelled.

In terms of the asynchronous course content the framing over pace and sequence (control dimension) is coded as F- as the pace and sequence of learning is suggested but not enforced, and students have autonomy in how they manage their work. This weakened framing and autonomy is important for their writer development, as a circular sequence and the ability to loop back and reflect is an important part of the course pedagogy and ultimately students' epistemological access to powerful academic literacies in the faculty. Students' ability to work at their own pace and revisit aspects they did not understand in their own time is also key for epistemological access. In terms of the framing over pace and sequence (explicit/implicit dimension) this is coded as F+ as there are

various instances on the LMS of instructional text providing suggested sequencing and estimated time allocations of tasks.

In the synchronous live classes in the chat room, on the other hand, framing over pace and sequence (control dimension) is coded as F+, as the facilitators set the pace and sequence within these scheduled sessions to a large extent, but there is still room for student input as students' engagement and questions shape the direction and pacing of the discussions to some extent. Once the live class is finished, the permanent record of the discussion on the chat room (as well as the consolidations provided by the teaching team) become learning artifacts (Wong et al., 2015; 2017) which students can refer to in their own time and sequence, thus also featuring the coding of F- for asynchronous course content.

While autonomy over pace and sequence is beneficial for students in some instances, self-directed learning and self-regulation still needs to be scaffolded, which is done effectively on the LMS via the use of structure and instructional text by the teaching team. While asynchronous discussions in the online learning environment could provide affordances for humanities and social science disciplines that require time for research and reflection in writing, these affordances have not been utilised on this course in favour of synchronous live classes. The weakened framing over pace and sequence offered by asynchronous discussions may be beneficial for this course and the features of humanities and social science disciplines.

4.5 Obstacles to participation related to digital skills

The course is described as 'writing-intensive', and this is evident in the weekly blogging tasks where students are encouraged to 'just write'. It is also evident in the format of the classes themselves in the chat room where writing is the means of participation itself, unlike in an in-person lecture or tutorial where the primary focus is largely on the spoken rather than written word. The teaching team viewed this as an affordance, particularly as students had the opportunity to practice their writing.

> *...when we were face to face [before COVID] there was a lot of talk happening because of the face to face, but now with the online, the affordance of it is that we are actually getting students to write more.*
>
> *(convenor 1)*

***

> *Because we are a writing course, in the chat room we are actually seeing students express themselves through the mode of writing because that is the mode through which they are actually communicating with us. So, it already puts them in the practice of expressing their ideas through the mode of writing.*
>
> *(convenor 2)*

While the course is aimed at supporting epistemological access to the valued academic literacy practices of the institution, obstacles related to even basic digital skills acted as a barrier to this epistemological access. While the live class format has many pedagogical advantages, as discussed above, there are also challenges to note. The fact that students need to contribute to the live classes via typing can be a challenge given that many of the students on the course have rarely, if ever, typed on a laptop or computer before they arrived at university. There is thus a significant obstacle in their access to, and participation in, this pedagogic environment.

> *Because, you know, I can't get work done on time compared to people who did. I'm a slow typer, I can't work with Word, I can't work my way around the laptop.*
>
> *(student 5)*

***

> *…the first week, I was struggling with like how do I type, because sometimes they would ask questions and people would be answering and then you would want to answer and then they would have moved on, and then like, am I left behind?*

[the live classes] were fast paced. At first, I was like you are moving too fast (laughs), some of us, this is still our first time using [gestures the motion of typing]

(student 6)

From the above it is evident that students' difficulty with typing also impacted on their experience of pace in the live class, often experiencing the synchronous live classes as fast paced, and having difficulty keeping up, while those who had had experience with typing before university found the pace of the live classes to be manageable.

While there was an effort by the teaching team to extend students' existing digital literacies, habits, and practices to make the pedagogic environment more comfortable and familiar – e.g. through the use of the WhatsApp group – there was not sufficient recognition that students' previous exposure to technology had primarily been through mobile and the shift to using laptops and desktops was a significant jump.

...young people don't call each other, it's all WhatsApps or they sending text messages. So, I think there is an element of familiarity with the online space for our students who enter that space.

(lecturer)

Another challenge relating to students' experience of pace and interaction in these synchronous live classes was the absence of turn taking practices that would be present in a contact class. A lack of turn taking practices in online discussions can be advantageous, particularly for students who are self-conscious or who struggle to interject into fast-paced discussions that are often dominated by a handful of confident and vocal students in a traditional contact class (Arasaratnam-Smith & Northcote, 2017; Bayne et al., 2020). There was evidence of this benefit in the data, but some students had challenging experiences in this regard, exacerbated by their struggles with typing.

...like in a lecture each and everyone would get their own turn, understand, but in a [live class] they send so many answers that I couldn't like fully interact with the whole thing.

It was a lot (laughs). So like in a lecture room I would be like ok, now I get that person's point, ok now I get that person's point, and be like ok, fine...

Interviewer: Ok, cause everyone takes a turn to speak?

Mm, like the answers they would keep on, everyone would answer! Everyone would ey, ey, ey. It's too much.

(student 2)

In the live class students are prompted to all respond to questions at the same time, thus eliminating these turn-taking practices. Those students who had little exposure to typing, for example, prior to university found this to be an obstacle to their participation in the live class as they would be slower to contribute and once they were ready to share their views, others had already communicated what they wanted to say, or the discussion had moved on.

> *Usually while you are typing someone has already typed what you were going to type. It's like you don't really participate in class.*
>
> *...there are five people already before you saying the same thing, no raising of hands. And I'm from a township school, we did not have laptops, so I am not a fast typer. So obviously...*
>
> *(student 5)*

This points to the potential limitations of pacing in this space compared to an in-person class as some students struggle to keep up and participate meaningfully. On the other hand, the online space offers an affordance in that all interactions are kept as a permanent record and learning artifact that students can refer back to at their own pace, which is usually not possible in a contact class.

The teaching team did acknowledge the barriers in terms of the pace of the class, especially for those who struggle with typing, and the absence of turn-taking that one would see in a contact class, that can result in various topics being addressed at once and thus information overload or issues with following the different threads. Interestingly, the teaching team admitted this was not only a challenge for the students but also for themselves.

> *When you are busy typing, there are a whole lot of responses that are already happening so you almost sometimes feel like you are catching up to where the class is going.*
>
> *So, the time factor in terms of typing, that is difficult... And for students that are coming into an institution where you need to work with devices and for some who come from school backgrounds where they were perhaps not asked to type. It might be difficult for them to type at the speed that some students are typing.*
>
> *(convenor 1)*
>
> ***
>
> *The other affordance is that you can generate a particular debate around a particular topic and almost get a number of responses at the same time. The drawback from that is that if you are the only person in that space or in that chat then it takes quite a bit of maneuvering*

> *to get hold of the different threads and respond to the different themes that are emerging. So, I find certainly in the last two years that that skill of mine, in terms of reading fast, picking up themes and being able to comment very fast, and of course typing very fast (laughs), has certainly improved.*
>
> *(lecturer)*

While these challenges are acknowledged, the extent to which difficulty with typing can impede students' access in live class, and thus their epistemological access, may be somewhat underestimated.

> *Typing eventually, which people make a big fuss about, is the lowest skill we see in terms of writing.*
>
> *(lecturer)*

It may be beneficial to consider more support and scaffolding for this skill, or to consider opportunities for multiple means of engagement on the course, in addition to fast-paced typing. Indeed, the inclusion of asynchronous engagement methods, such as asynchronous discussion forums, could be beneficial for both students and staff in taking advantage of Arasaratnam-Smith & Northcote (2017)'s concept of 'time for reasoned response', and addressing digital inequalities around speed of typing. Given the generally slow, deliberate, and considered nature of reading, writing, and research in humanities and social science disciplines, the affordances of asynchronous online engagement, and thus weakened framing over pace and sequence, could support epistemological access for these students.

All interviewed students mentioned that they drew on peer support when navigating technological challenges during the course. Many drew on friends that had more experience with technology for assistance. For many students, they are the first in their families to go to university so felt it was necessary to draw more heavily on peer rather than family support when it came to navigating academia, and online learning.

Considering that this is a writing intensive course, the fact that it was offered online in 2022 and the primary means of engagement was via writing, was beneficial for getting students to practice and engage with writing. It must be noted, however, that many students on the course grappled with

digital inequalities that resulted in them having very little if any prior exposure to typing on laptop or desktop computers. The participation in synchronous live classes via typing, particularly given the fast pace and lack of turn taking, thus posed an obstacle to students' access. The affordances offered by the online space in enabling asynchronous online discussions, may go some way to addressing these inequalities and catering to the nature of writing and thinking in these disciplines.

4.6 Disciplinary identity

One of the course aims is to 'develop confident readers and writers of academic texts' and, in terms of disciplinary identity, students are often positioned as readers, writers, and authors. Reading, writing and thinking are positioned as integral aspects of the student identity, and the socially embedded nature of reading and writing is acknowledged – an important consideration for academic literacies:

> *READING IS PERHAPS ONE OF THE MOST IMPORTANT ACTIVITIES THAT YOU WILL BE ENGAGED IN, AT UNIVERSITY. AFTER ALL, WE READ AND THINK AND WRITE FOR A LIVING WHEN WE ARE STUDENTS, SINCE THAT IS WHAT MAKES US 'STUDENTS'. THEREFORE, KNOWING "HOW" TO READ IS NOT A SIMPLE MATTER OF BEING ABLE TO RECOGNISE WORDS ON A PAGE!! READING AT UNIVERSITY, REQUIRES MUCH MORE THAN THAT - IT REQUIRES THAT WE READ WITH UNDERSTANDING, THAT WE IDENTIFY ON SOME LEVEL, WITH WHAT AUTHORS ARE SAYING AND THAT WE UNDERSTAND WHY THEY SAY THE THINGS THAT THEY DO! READING ALSO REQUIRES US TO OCCUPY A STANCE, TO HAVE AN OPINION ON THE ISSUES WHICH AN AUTHOR DISCUSSES AND TO ENTER INTO A DEBATE, A CONVERSATION WITH THE AUTHORS ON THAT ISSUE. READING IS THUS NOT A PASSIVE PROCESS, IT IS AN ACTIVE ONE!!*
>
> *(live class chat room)*

While the course aims to develop the identities of confident and self-sufficient readers and writers of academic texts, it also faces the challenge of presenting support that is broad and generic enough for students majoring in a wide range of Humanities and Social Science disciplines. While the course needs to cater to this wide range of students, it is interesting that it almost exclusively draws on social science concepts, particularly sociological concepts, in the course content. As mentioned earlier in the chapter, students are encouraged to theorise their own experiences using the language and theories of the social sciences.

The work of sociologists and social science concepts are referenced repeatedly throughout the course, such as 'social death' in week 2 and socialisation in week 5. The course centres social science concepts and authors, such as Marx, Jung, and Freud. Several of the core texts in the course are sociology texts. The identity of social scientist is positioned as a primary identity on the course, whereas the identity of humanities scholar is positioned as secondary.

Justice, human dignity, kinship, the nation state: these are all examples of concepts… they are things by which social scientists (and humanities scholars and many other people as well) refer to very specific things...

(online course content)

The course thus displays weakened classification between the course content and other social science disciplines (C-) as it drew extensively on social science concepts, particularly those from sociology.

While students commented on the value of the course in explicating academic literacies and developing their academic writing, students doing social science majors found the course content more relevant than those doing humanities majors. Those students doing humanities majors often felt the learning in terms of course content was not transferable to their degrees, while the academic writing was.

So, I'm doing Sociology, right. So, there were some things that we were learning about in this course that had something to do with sociology. Socialisation. It was kind of helpful, even with the content, not just the writing.

(student 5)

***

Interviewer: Ok, and this course uses a lot of social science, sociology concepts. Do you feel like that still applies to your BA?

Nope (laughs). But it's helped me in terms of how to write an academic essay but I'm not doing sociology so...

(student 6)

While the below student did not find the content particularly relevant to their BA degree in film and media studies, they found the course valuable in developing their personal and disciplinary identity. There is some reluctance and hesitation in the student's comments ("if I can say"), but they are already perceiving themselves as a creative, performer, and director, and thus actively developing their disciplinary identity.

Um, I think just the whole theme of identity, for me being a... if I can say learn how to be a creative, and the path that I'm wanting to go on, it really has helped me in terms of as a performer or as a director if I can say (laughs) of looking at the work in which, the stories that I tell, or the work that I give out to the specific audiences I am wanting to approach, so I

> *guess it really has made me question myself in terms of where does my background come from, what does my identity have to do with the stories that I am telling to other people...*
>
> *(student 1)*

In terms of framing over selection, students do have some control over what they write about in their blogs (within the confines of the assigned topic), but the course content, in terms of the readings, concepts, topics, and so on, are determined by the teaching team and thus selection on the course can be coded as F+. In the humanities case study, which will be discussed in a subsequent chapter, weakened framing over selection was used, particularly in the assessments, to ensure relevance for students to their chosen majors and disciplines.

While the convenors are quite explicit regarding their focus on social science concepts in the course, the lecturer on the course argues that the course also integrates humanities disciplines:

> *...we merge quite a number of those disciplinary identities... We introduce readings such as Ngũgĩ and Adichie, so I mean that's more from the English language component. We introduce things like gender, so that's gender studies, we introduce things like culture. And that crosses boundaries in terms of gender and African Studies and sociology even. So, there's a nice little merging of various concepts from a number of disciplines which we grapple with, and so although we don't sort of teach in line with a particular disciplinary discourse, we do offer students the platform to think across the disciplines in terms of, maybe let's just call it a type of generic basic skill that you would need in order to write and do research and read in these disciplines.*
>
> *(lecturer)*

Indeed, the teaching team seems to agree that, in line with the aim of the course to 'develop confident readers and writers of academic texts', they are more concerned with developing broader academic writer identities rather than aiming to foster a single disciplinary identity. One could argue that any disciplinary identity within the humanities and social sciences includes, as a fundamental component, the identity of a confident academic reader and writer – thus this identity may be an important starting point of epistemological access to any discipline.

> *I would see [the course] as trans-disciplinary. In terms of identity, you are not looking at a specific identity, you are probably looking at the shaping of multiple identities, but it is a start. In that first semester students are still on the fringes of that disciplinary community, so the outcome of the course is not a full-fledged disciplinary identity. But it is an orientation to those multiple identities that they might have to impersonate in future.*

(convenor 2)

The weakened classification between the course content and social science disciplines can thus support students' epistemological access in terms of broader academic identities and academic reading and writing, even if students pursuing humanities disciplines do not find the course content itself as particularly relevant to their majors.

The lecturer comments that certain academic literacies that they teach are relevant across disciplines, such as grappling with voices:

> *...we get them to grapple with voices and one is their own voice, one is the voice of the author, and the other is voices of authors who may or may not agree with a core author. So, we get them to engage in a conversation with authors and I think that's embedded in all the disciplines, showing them how to unpack a text, how to approach a text.*
>
> *(lecturer)*

The students, however, often find that their own voices are less valued in certain disciplines within the institution, as mentioned in the interview extracts above where students described having to stick to the brief or the facts rather than brining in their own voice. The lecturer describes bringing three voices in conversation with each other, but in the experience of some of the students, they feel that only two of those voices are valued in certain disciplines – that of the core author and other authors referenced. The ability of these students to differentiate between courses in how they value the inclusion of voice in academic writing speaks to their development of sophisticated academic literacies.

The course displays weakened classification with social science disciplines and, while there was some disagreement among the teaching team regarding the perceived relevance of the course content to humanities disciplines, the students displayed consensus in their views that the course content was only relevant to social science disciplines, but the literacies related to academic reading and writing transcend disciplinary boundaries. Students were also able to demonstrate an understanding of the varied expectations related to academic writing across disciplines.

4.7 Table 12: Coding summary: social science case study

	Framing							**Classification**	
	Pace and sequence		**Hierarchical rules**		**Evaluative criteria**		**Selection**	**Classification between the course and other disciplines**	**Classification between course content and everyday knowledge/examples**
	Control	explicit/ implicit	Control	explicit/ implicit	Control	explicit/ implicit	Control		
Codes from the data	F- (F+ in the synchronous live classes)	F+	F-	F-	F++	F-	F+	C-	C-

4.8 Conclusions

The social science case study has several key aims, namely, to make explicit the academic literacies valued in social science and humanities disciplines, to develop confident readers and writers of academic texts, and to support students in constructing their disciplinary identities.

The affordances of the online learning environment, in combination with considered and intentional online pedagogic strategies by the teaching team, supported these aims, and thus students' epistemological access to the faculty and the broader institution. Weak classification between the course content and students' everyday knowledge and experiences was fostered in experimental and relatively informal digital spaces, such as the blog and live class chat room. Students developed their authorial voice by drawing on their own experiences and knowledge and the integration of this with the theory was modelled by the teaching team in the live classes. The weak framing over evaluative criteria was another strategy used to support this experimentation, creativity, and development of voice, particularly in the blogs. This approach was encapsulated in one of the common refrains of the course - 'don't leave yourself at the door'. This weak framing over evaluative criteria did result in students experiencing the transition from the blogs to essay writing as a significant one, which could be better supported and scaffolded in future.

The flattened hierarchy of the online space, and thus weaker framing over hierarchical rules, was an ideal environment in which the teaching team could support writer development in a relatively informal, supportive, and comfortable setting. Online spaces can allow for more relaxed and often emotive forms of writing and expression, continuous experimenting with and reworking ideas, and greater student agency (Arend et al., 2017). The trust and vulnerability developed in this space allowed for challenges and provocations, and a strategy of discomfort, without intimidating students.

The weak framing over pace and sequence (control dimension) in the asynchronous course content, blogs, and records of the live classes supported epistemological access in that students could progress at their own pace and could also loop back and reflect on previous writing, an important

facet of writer development. While this did pose challenges for students in terms of self-regulation and self-directed learning, the stronger framing over pace and sequence (explicit/implicit dimension) in the form of explicit guidance, structure, and instructional text on the LMS supported and scaffolded this independent work.

The online space offered affordances for the teaching team in being able to get an immediate snapshot of students' progress and misunderstandings, as well as a channel to address student questions in an immediate and responsive manner. The permanent record of interactions supported the roles of quiet observer and active reader for some students in the class. It is also a space that supports peer-to-peer learning which students drew on extensively for feedback on their writing, and support with digital skills.

Given the course's focus on social science concepts, there was evidence of weak classification between the course content and social science disciplines. The strong framing over selection also meant there was limited scope for students to draw on other disciplines, e.g. those in the humanities. While BA students felt that the course content itself was not relevant to their humanities courses, the academic literacies, particularly those related to academic reading and writing, were applicable across humanities and social science disciplines. The course also equipped students with the tools to start developing their own disciplinary identities and to recognise the extent to which their authorial voice was valued or not in different disciplines.

While there are many affordances offered in the online space to support the goals of the course, there were also challenges and limitations experienced. This is a writing intensive course and the means of engagement on the course via writing (e.g. in the live classes) was noted as beneficial by the teaching team, but significant digital inequalities faced by students, such as lack of familiarity and skill with regard to typing, resulted in experiences of marginalisation in the online learning environment. The live classes were experienced as too fast-paced by some of the students, and the lack of turn-taking practices in this space compounded this difficulty. The synchronous nature of

these classes meant that framing over pace and sequence (control dimension) was stronger than in other aspects of the course. Ideally these basic digital skills could be better supported on the course. The course may also benefit from the inclusion of other asynchronous methods for class participation (in addition to the live classes) such as asynchronous discussion forums, allowing students a space to think through their contributions and responses. This could allow for the benefit of 'time for reasoned response', a concept well-suited to the requirements of reading, research, and writing in humanities and social science disciplines.

Chapter 5: Physics Case Study

The Physics course is taken by students on the extended BSc programme and begins in the second term of the first semester once students have been allocated into either the mainstream programme or extended programme based on their first term test results in the mainstream courses. The course covers foundational physics concepts, including essential mathematical, diagrammatic and conceptual tools and skills for the physics discipline, mechanics, properties of matter, and vibrations and waves.

The pandemic and subsequent lockdowns necessitated a shift to a blended, flipped classroom model for this course in 2022. There were around 80 students on the course in 2022. Core course content is housed on a course site on the university's learner management system (LMS) broken down into weekly units and daily lessons pages. Students are required to attend one compulsory 2-hour session a week which takes the form of either a whiteboard tutorial or a lab session, depending on the content being covered that week. Students are also able to attend optional Q&A and help sessions with lecturers and tutors, offered three times a week. There is a dedicated course WhatsApp group in which administrative and content-related queries are addressed. Group membership is confined to students with class representatives channelling relevant queries to the convenor.

The course is structured into 17 weeks and each week is further broken down into topics covered on each day - this course structure is reflected on the lessons pages and sub-pages on the online course site with 17 weekly pages, and 5 sub-pages for each week. The course site features many of the best practices associated with online instructional design, such as explicit learning outcomes and instructional text (including learning time estimations), chunking of short learning activities, and continuous opportunities for engagement with the content – e.g. via MCQs, polls, or short answer questions that can all be answered directly on the lessons page within the learning path, and opportunities to consolidate learning and track one's own progress (e.g. via checklists).

The layout of each daily lesson page is consistent across the lessons and generally includes the following elements:

- Lesson title
- Speech bubble with picture of lecturer, welcome message and lesson introduction
- Checklist of day's learning activities, including learning time estimations for each activity
- Lesson notes (usually available in both voicenote recorded by lecturer as well as text)
- Links to external resources – e.g. YouTube videos, simulations
- Lecture videos (some in the form of narrated powerpoints, others in the format of a whiteboard video worked example where the lecturer guides students through the solution to an exercise)
- Short exercises (often these are followed by an answer box or a multiple-choice question which the student can answer directly on the lessons page)
- Textbook extract
- *'What did you learn today?'* Students are prompted to revise and consolidate the work for that day, to draw or add to a concept map as a visual representation of their learning, and to discuss what they learnt with someone else
- An answer box for feedback on the lesson and/or any suggestions for improvement
- The Friday lessons (as the last lesson of the week) offer a checklist of learning outcomes for that week

I carried out digital observations of the first 8 weeks of lessons pages on the online course site. For the in-person observations, I observed two whiteboard tutorials, one facilitated by the convenor and the other by the course tutor, and one lab session, facilitated by the course convenor, a course lecturer, and three tutors. Before, during, and after these sessions I also had the opportunity to have informal conversations with teaching staff regarding teaching and learning in the sessions and on the

course more broadly. I conducted a pre-scheduled, recorded interview with the course convenor and interviews with six students.

The whiteboard tutorials take place in a physics laboratory where whiteboards are set up along the sides of the lab in a square shape around the desks. The sessions begin with either the convenor or tutor addressing the class. Students are then instructed to work in pairs or groups at the whiteboards for the bulk of the session. Usually, students work on tasks related to their course submissions, e.g. lab reports or weekly problem sets. The teaching team walk around the class answering student questions, assisting students when they get stuck, and drawing the class's attention to one of the boards at certain intervals to demonstrate how to work through a particular part of the equation. The teaching team describe the format of these whiteboard sessions as 'informal', and this is evident in the structure of the class and the layout of the space. Rather than a passive audience of students listening to a lecturer in a prominent space in the classroom, the format of these sessions does not feature obvious physical markers of hierarchy.

Similarly, the lab sessions are relatively informal in structure with an emphasis on peer-to-peer learning and collaboration. They take place in the main physics laboratory in the department and the set up and apparatus vary based on the content of the practicals for that week. The lab sessions are used for the data collection aspect of the students' work and, in the case of the session which I observed, students were expected to collect data on repeated measurements of a steel ball falling on an electromagnetic apparatus. There is no formal introduction for the lab sessions, as soon as students arrive, they immediately go to a free station and begin working with their partner on the data collection using the equipment and recording the data either on paper or on their laptops. The lecturer and tutors mill around checking in on students and answering questions as they arise. Given the emphasis on trial and error and repetition in the discipline, which will be discussed below, students repeat the exercise many times over the allocated time and can leave when they have completed their data collection and recording.

5.1 Physics – academic literacies and disciplinary knowers

It is evident from the ways in which teaching and learning are structured on the physics course that the teaching team has clear ideas regarding how best to support students in their epistemological access to the physics discipline. For one, they emphasize the importance of grasping foundational physics concepts and allowing the curriculum space to do so via additional course time compared to the mainstream, and with the flexibility in pace of learning supported by the online course site. In addition to disciplinary content, the teaching team has strong ideas regarding the nature of the physics discipline and the characteristics of its disciplinary knowers, reflecting a clear regulative discourse. In a Week 2 lesson the notes emphasize the importance of learning by doing in the physics discipline, and one could characterise a physics knower as one who is active, and who does not hesitate to get involved with physics problems.

> *(*Remember that anything highlighted like this is something that involves learning by DOING - physics is not a spectator sport; you learn most effectively when you are active)*
>
> *Some frustration is usually part of the process*
>
> *(Online course site, Week 2)*

In the same lesson the analogy of learning to ride a bicycle is used to illustrate how to learn physics. The notes state that the best way to learn to ride a bicycle is to get on and try it out and that, even if you fall off, this is the only way you will learn. This guidance is reiterated in other parts of the course content where students are encouraged to 'take a guess' and 'JUST DO IT', even if they are uncertain, and then to learn from their mistakes. Physics disciplinary knowers are also expected to take initiative, and this is reflected in the course content where students are encouraged to Google or reach out to the teaching team when stuck.

The course convenor stresses the importance of active learning in this discipline and discusses some of the challenges with this, especially in the format of a traditional lecture where students often revert to passive learning behaviours. The convenor also speaks to the online learning environment being utilised for the inclusion of active learning elements.

> *...working through an online lesson if a student does it properly is more productive than sitting in a physics lecture. Because you need to be active to learn physics, and that's well-researched...*
>
> *But there's limitations in terms of what you can do in the [in-person] lecture on that. And students have this expectation that what a lecture is where a lecturer talks. The lecturer lectures. So, they can be quite resistant to the active learning aspects.*
>
> *(Lesley, convenor)*

Both online and contact aspects of the course allow for students to engage in active learning, trial and error, and to develop disciplinary knowledge and characteristics. The notes on the LMS emphasize the function of contact sessions, like the lab sessions in providing opportunities for students to acquire '*practical skills which all scientists need in order to play the 'game' of science'.*

One of the academic literacy challenges that students face in the science faculty is relying on rote learning that may have been encouraged in their school settings but is not sufficient at the university. This demonstrates the importance of making these academic literacies and evaluative criteria explicit in supporting epistemological access.

> *Rote learning is a problem perhaps more at worse schools where students think that's what their job is, is to memorise a whole lot of stuff and then spew it onto the exam paper. And that is a problem across the science disciplines in terms of what students understand as 'learning' the discipline.*
>
> *...when it comes to answering an exam question, they look for a couple of key words in the exam question and then give everything they know about, say, miosis, or whatever, instead of actually using what they know to answer the question being asked – being able to apply the knowledge.*
>
> *...students come in and they're very good at rote learning, and that's not a bad skill, there's some stuff in [science] that you need to memorise, but you've got to go beyond that.*
>
> *(Lesley, convenor)*

From the very first lesson of the course, the importance of active learning, continuous and consistent engagement with activities, and trial and error are emphasized and associated with access to and success in the discipline. In Week 1, a set of notes titled 'The Key to Learning Physics' outline the correlation between the grades of the previous year's class, and the number of online activities completed - those who got 'firsts' in a test all completed at least 70% of the activities, while those who failed did not complete more than 50% of the activities. It is also noted that the statistics relate

to attempts of the activities, not necessarily getting the correct answers, and thus the importance of making mistakes in learning. The notes thus encourage students to engage with the activities to effectively learn physics.

Through positioning herself as fallible and being able to make and learn from mistakes, the convenor attempts to demonstrate an important aspect of the discipline.

> *I positioned them as capable a lot of the time. I positioned myself as fallible a lot of the time (laughs), not knowing physics, but able to make mistakes.*
>
> *(Lesley, convenor)*

From the above points we can assume that not only is a physics knower one who does not hesitate to get 'stuck in' and try things out but is also not deterred by failure. Physics is a discipline of trial and error and requires a resilient attitude, and students are reminded throughout the course that it is fine to make mistakes, but important to learn from them. A physics knower also must accept uncertainty, as the teaching team explains that uncertainty is an unavoidable constant in the physics discipline.

> *Uncertainty in measurement is unavoidable*
>
> *When designing an experiment the aim is try and make the uncertainty as small as possible, but with knowledge that the uncertainty interval cannot be reduced to zero.*
>
> *(Online course site, Week 6)*

In an interview, the course convenor describes her intention to position students as 'scientists in the making' to strengthen their disciplinary identity. There are various instances in the course where students are positioned or referred to as disciplinary experts and as budding scientists.

Students need to be able to understand and adopt the appropriate disciplinary identity of a physics 'knower'. They need to understand the applicability of physics knowledge in everyday life. The physics disciplinary identity fostered on the course is that of a knower who is curious to understand how things work, who learns by doing, and who is not afraid to try and fail, and try again.

The course convenor mentions that about a third of students on the BSc plan to pursue medicine either in the short term or after completion of the degree, which she in fact discourages given the restricted places available on the medicine programme. Those students planning to pursue medicine often see the physics course, and the BSc in general, as a stepping stone to that qualification and thus are often not as interested in the physics concepts or adopting the disciplinary identity.

> *My first option was medicine, but they didn't take me for medicine. So, I had to do chem eng. Then I applied again last year for medicine, but they didn't take me because my marks weren't like really really good. So, I thought let me just change to BSc so that I can... I felt like I would be able to get really good marks when I'm in BSc because it's much more easier than chem eng. So ja, next year I want to get into medicine.*
>
> *(student 4)*
>
> ***
>
> *I don't want to lie, I want to pursue medicine. I will get the degree and change to medicine, or else I will find some kind of... but now I'm still thinking of getting into medicine.*
>
> *(Nemhara, student)*

In the interviews students were prompted to consider the characteristics of a physicist or scientist. Interestingly, those who were majoring in physics identified quite strongly with the characteristics described above, whereas those planning to pursue other disciplines (e.g. medicine) did not identify as strongly with these characteristics and did not always enjoy the trial and error and experimentation integral to the discipline.

> *I think someone who is not afraid to learn new things and admit when they are wrong.*
>
> *(student 1)*
>
> ***
>
> *And also very curious, which is also one of the things I would describe about me. I also think I'm a very curious person, like I always want to know what's happening and why it happens...*
>
> *(student 5)*
>
> ***
>
> *I really love like learning about how things work and that's why I took physics and math. I enjoy it.*
>
> *...they have a lot of perseverance.*
>
> *Because like things don't always work the first time.*

(student 6)

These disciplinary characteristics, such as trial and error, and perseverance, inform the pedagogical approaches on the course, as students are encouraged and required to learn by doing, rather than via didactic or passive instruction. Both the online and in person spaces provide opportunities for students to engage in active learning and trial and error, although the online space is better suited to individual, self-driven learning in this case, while the in-person activities are more focussed on group work and peer-to-peer learning. The quotes below indicate that students value active learning and this helps the concepts 'stick' better in their minds.

> *…it can be frustrating sometimes like when you are given a question and then you spend an hour trying it and you realise it's just been mistakes. But then it becomes great when you finally find the answer and you look at all your mistakes and now you know what to do and what not to do. Like for instance during the whiteboard tutorials, they can give us a question and then you try and work it out, you ask a tutor and then they show you your mistake, you do it again, they show you another mistake, and by the end of it you learned new things more than during the lectures because now you remember those mistakes even when you are writing. You know what to do instead of what not to do.*
>
> *(student 1)*
>
> ***
>
> *It's better to grab something that you know – something that you did experimentally – than to grab something that you just read from the book and just putting it in your mind.*
>
> *(Nemhara, student)*

In developing the characteristics of a disciplinary knower, such as taking initiative and building perseverance, students had to nurture their digital literacies. Most students agreed that it was necessary to supplement the course content with relevant YouTube videos. Some students followed specific channels, while others simply searched for a concept they wanted to know more about. Regardless of approach, students had to develop sophisticated digital literacies and self-directed learning habits to source the content they were looking for.

> *... it's highly possible for you to go through your lecture notes and not understand something. Go through it again, still. That is why I make use of YouTube, because I feel like on YouTube there's so many things that could help you, so many videos that those people they explain, in a manner that you would understand.*
>
> *(student 4)*

***

I don't mind doing my own research, but the way we were taught was like, our professor now, most of the time she would just go over the concepts, like how things work basically. And then she would do like one or two examples. I didn't feel like that was sufficient because there's like so much other stuff that we need to know. And that's on YouTube also, so.

(student 6)

In addition to supporting students' development of a disciplinary identity, the course also illuminates some of the academic literacies valued in physics to support students' epistemological access. An important academic literacy in this discipline is the use of symbols, their meaning and pronunciation. Because an ability to speak the 'lingo' of a discipline is an important marker of a disciplinary knower, this course supports epistemological access in this regard, and lessens students' anxiety around embarrassing mispronunciations of these terms, especially considering that many students are already learning in what may be a second or third language. In one case the link is made between the Greek symbol and a similar word in Sesotho/Setswana, which may be a helpful way to remember this pronunciation.

(τ is the Greek letter 'tau' (which means lion in Sesotho/Setswana))

(Online course site, Week 7)

***

It can be tiring to keep writing 2πf, so instead you can write ω (pronounced 'omega', NOT 'W')

(Online course site, Week 7)

Another way in which academic literacies are supported on the course is via the identification of several 'big ideas' in physics – I.e. core concepts of the discipline – which are signposted in the course content. One example from Week 7 is the 'big idea' that the nature of the net force determines the nature of the motion. In that week students are presented with a checklist in which they are required to tick off which 'big ideas' were new to them that week.

The lecturer often references students' school physics practices as a way to illustrate the academic literacies required for university-level physics. In Week 2's Tuesday lesson the lecturer is explicit about an aspect of academic literacies in physics – significant figures and decimal places – and

explains that the physics department is fussy about how many significant figures are provided in an answer. To explain how to determine number of significant figures in an answer, she makes the distinction from high school where students were told to include two decimal places across the board. In Week 8, students are prompted to fill in a multiple-choice question to specify what they covered in high school as a way for the teaching team to gauge students' prior knowledge and to adapt teaching to address this.

In Week 2, the lecturer makes the distinction between school-level and university-level problem solving expectations – again making explicit the academic literacies required in this discipline.

> *At school, you probably had a problem-solving method that looked like this: 1. write down the given information; 2. hunt the formula; 3. plug-and-chug (plug the numbers into the formula and chug along until you get an answer)*
>
> *That was fine for matric, but it's not going to get you far when working with the complex problems in this course. So we need to upgrade your problem-solving skills to this model:*

In other parts of the course school is referenced in a more positive light when students are encouraged to draw on any prior knowledge of physics concepts, including those learnt in school.

In the physics discipline sometimes terms are used that have one meaning in everyday language, but a more specialised meaning in the disciplinary context. In Week 1, for example, the lecturer explains the difference between the term conservation in terms of its everyday meaning related to nature conservation, and its more specialised meaning relating to conservation of momentum in physics. The physics discipline is used to understand phenomena in the real world and thus some weakening of classification between disciplinary knowledge and the everyday world is necessary, as will be discussed later. It is important, however, that some boundary maintenance and thus stronger classification is retained between everyday words and specialised physics terminology so that students are aware of these differences and how specialised disciplinary language is used. Paxton & Frith (2014) note the challenges many students experience in differentiating between words' everyday meanings and their discipline-specific, conceptual meaning in science disciplines,

particularly in the case of students whose first language is not English. It is thus useful for these meanings to be clarified as below:

> *What do you understand the word 'uncertainty' to mean in the context of physics experiments?*
>
> *Like many other words, uncertainty has a specific meaning in physics that differs from its everyday use. (Here are some other examples: I lack energy today, but I will force myself to do some work because I have the power to choose.)*
>
> *In physics, uncertainty is the term used to quantify or describe what you know about a measurand (the thing you are measuring). The knowledge of what we know about a measurement will always be incomplete as will be seen in today's lesson.*
>
> *[Uncertainty is a technical term so do not confuse it with everyday usuage, such "I am uncertain whether I should go to the party tonight!]"*
>
> *(Online course site, Week 6)*

In one of the videos in Week 2 the convenor states that physics language is dense in that a lot of information is conveyed in a few words, emphasizing the importance of reading the question carefully. This aligns with Becher & Trowler's (2001) assertion that much of the content of the physics discipline may be unintelligible to the lay reader because meaning is conveyed in a specialised, highly compressed manner. The physics discipline thus displays strong semantic density in that meanings are very condensed within terms and symbols (Maton, 2013).

In the same video, the convenor emphasizes the importance of visualising the problem in physics and demonstrates this through sketching out a question from one of the exercises. This is not the first time the importance of visualisation in physics has been conveyed. The lecturer advises students to create concept maps each week to visualise the different topics covered and how they interconnect. There are also instances of visualisation in the lecturer's videos where she takes students through solutions to exercises.

There are many instances in the course in which students are guided through the academic literacy practices valued in the discipline. In Week 1, for example, the convenor presents a video in which she works through an exercise using the problem-solving approach. The video goes beyond presenting an exercise and its solutions, and explicitly guides students in *how* they should complete the exercise

and the thinking process at each step. It is evident that the teaching team conceive of their role as extending beyond the simple transmission of content. In explicating many of the teaching and learning strategies used throughout the course, they pull back the curtain for students on some of the valued academic literacy practices in the physics discipline, and at university more broadly. It is interesting that the course not only applies what are considered teaching and learning best practices, but is explicit with students regarding the reasoning for their approach (in brackets below):

> *Scan today's lesson to remind yourself what you have learnt, that you didn't know before. (The sooner you recall what you've learnt, the more likely you are to remember it long term)*
>
> *Tell someone what you learnt today. (Talking helps consolidate your learning .)*
>
> *Let's start from what you already know (which is always the best way to learn) …*
>
> *(Online course site, Week 2)*

Academic literacies and disciplinary identities are structured through boundaries between this discipline and others, as well as between the discipline and the everyday – topics that are elaborated upon in the next section.

5.2 Classification

An important aspect of students' epistemological access to the physics discipline is the understanding of the nature of physics in relation to the everyday world, and the strength of the boundaries between disciplinary knowledge and the everyday. The physics discipline is a way of understanding causal mechanisms of phenomena in the everyday world but, to achieve this, the discipline engages with simplifications of reality and makes certain assumptions that may only be true under experimental conditions that do not reflect all the complexities of the real world (Wheelahan, 2010; Taylor, 2018). The course content details the assumptions and simplifications of the real world that are necessitated by the physics discipline, and the content guides students on setting these. Given the nature of the discipline in engaging with and explicating phenomena in the real world, the discipline does display weakened classification in this regard. There is not, however, a total weakening of classification or absence of boundaries as there is the acknowledgement that the discipline is a simplification of reality, and its concepts and terminology are specialised.

The course content in this physics course reflects this weakened classification. There are various instances in the course where the physics discipline is presented as a means of explaining phenomena that we can observe in everyday life. Conversely, there are instances in the course where everyday examples are drawn on to explain and scaffold understanding of the scientific concepts covered in the course – bringing the concepts to life and demonstrating their relevance.

In Week 1, for example, we see everyday images of a ball being kicked, and the resulting compression or force. These recognisable, everyday images are then overlayed by mathematical symbols, equations, and graphs, thus showing the role of physics in explaining real world phenomena. The course content often references everyday phenomena with which students would be familiar and then illustrates how these phenomena are examples of physics principles and concepts – everyday commonsense knowledge can thus be conceptualised in terms of specialised disciplinary knowledge. The weakened classification between disciplinary knowledge and everyday

examples is thus an important scaffolding tactic used to familiarise students with these concepts and their relevance, grounding theoretical concepts in familiar real-world examples.

> *Have you noticed the smoke of a candle that has just been extinguished? Initially the flow of the smoke is smooth ('laminar') but then it becomes messy (turbulent).*
>
> *(Online course site, Week 3)*
>
> ***
>
> *Pushing a swing: When you push a child on a swing, you naturally push at the same frequency as the swing (which is a pendulum). Therefore the amplitude of the swing increases.*
>
> *(Online course site, Week 7)*
>
> ***
>
> *In other words, we've defined a new* concept (flow rate), and derived two new equations related to it. (*Actually you probably had some idea of the concept of flow rate before this lesson, but now we've given it a name, symbol, unit and equations.)*
>
> *(Online course site, Week 3)*

In Week 4, the nature of the physics discipline and its function in conceptualising phenomena in the physical world is succinctly explained in this extract from the course content:

> Physics is a way of thinking about and making sense of the physical aspects of nature, which can be very complex. There are many ways in which people make meaning of the complex physical world. In physics, mathematical models are constructed and used to make sense of the physical world. These models can be represented using equations, graphs, diagrams and words. These models are always simplifications of the complexity of the real world. Physicists value simplicity in models. A model can be used to make predictions about a particular physical situation only when the simplifying assumptions in the model are sufficiently valid. So, models can be tested in the real world by experiments under the right conditions.
>
> *(Online course site, Week 4)*

In a Week 1 lesson, on the other hand, the lecturer starts with the physics concepts (in this case positrons and electrons) and then illustrates how these can be applied in real world contexts (in this case in PET scanners). To make this example contextually relevant, the lecturer refers to a specific lab in the city. The video shows a professor and PhD student working with the scanner to conduct experiments.

In the interviews, students were asked if they could see how physics concepts could be applied in everyday life. In line with the findings above, those students majoring in physics were more curious

as to how physics concepts applied in everyday life, and were able to make those connections, whereas those majoring in other disciplines struggled to do this.

> *...when I look around I just started to notice things I learn in class just there outside in the world. Our first topic was fluid, fluids dynamic and static fluids. I realised that the more I look at it, it's just everywhere. You look at things like aeroplanes, they are flowing through air, air is a fluid. You look at things like how water comes from the ground and moves up floors, and you realise that is also fluid dynamics, you did questions like this. And now you get a better understanding of it because you just interact with the things every day.*
>
> *(student 1)*
>
> ***
>
> *Yes, always. Like even when I'm sitting at home, something falls off the table. When I was holding my curtain rod in my hand – I was helping my mommy take off the curtains, I was holding the rod in my hand and it was heavy on the one side. I was thinking about like torque and stuff. It's weird, I don't know. I don't know if everybody else thinks like that.*
>
> *(student 6)*
>
> ***
>
> *But because I want to get into medicine, so I don't really feel like it's going to be useful for me. But ja, then when I'm generally speaking, I don't really think... I don't know. I don't know.*
>
> *(student 4)*

To support students' epistemological access to the physics discipline the course weakens classification between disciplinary content and the everyday world by demonstrating how physics is used to understand concepts in the real world, as well as using examples from the real world to bring scientific concepts to life. Classification is not totally weakened, however, as the course is explicit in noting the role of physics in making simplifications and assumptions of the real world, often under experimental conditions, and is explicit in differentiating between everyday language and specialised disciplinary terminology. The course thus features a C- code when it comes to classification between course content and the everyday.

The course content on the physics course refers almost exclusively to physics concepts and physics knowledge, with little reference to other disciplines or the possibility of interdisciplinarity. This suggests strong insulation of the discipline and thus strong classification evident between the physics discipline and other disciplines, although there are a few brief references to other disciplines,

including mathematics and computer science. A code of C+ is thus appropriate for classification between the course and other disciplines given the strong insulation and minor references to other disciplines, as well as students' ability to make some connection between physics and mathematics, which was noted in some of the interviews.

5.3 Pace and sequence

Students valued the way in which the course was set up on the learner management system, and the attempts to strengthen framing over pacing and sequence in a space that can often be inherently weakly framed in terms of pace and sequence. This was done via a highly structured course site where content was broken up into units and sub-units, with each lesson reflecting the day of the week and date for suggested completion, as well as learning time estimations provided for each learning activity in the lessons. Thus, pace and sequence were suggested but not enforced. These attempts to strengthen framing over pacing and sequence can act as a way to scaffold and model time management and self-regulation. Students did, however, appreciate being able to refer back to the online course content and work at their own pace with the guidance present. Most students tried to follow the pace and sequence recommended on the lessons pages.

> *...I try my best to follow it, yes. I like that structure because in the first [mainstream course] physics that we got, there wasn't like Monday, Tuesday, Wednesday, and I hated that. It's like, do I do everything at once? Do I break it up myself? ...So I didn't know where I needed to be.*
>
> *(student 6)*
>
> ***
>
> *...you don't have to make your own decision on what to allocate to which days since it is already allocated. This amount of work for this day...*
>
> *And the thing with me is like I tend to burn out, because I try to do as much as I can like on the get-go, instead of spacing it out. So that's what helped me a lot, so I'm not as burnt out anymore.*
>
> *(student 5)*

As mentioned, the structure of the online course site is designed to assist students with this autonomy and self-regulation. In one instance students can collect data at home for a task in their own time, rather than being required to collect data in the lab. Although this allows for flexibility in pacing, the teaching team attempts to strengthen framing over pace somewhat by requiring students to submit their raw data and answer questions on the LMS to ensure they are on track – this gives

students some autonomy over their work, while also having that safety net to ensure nobody gets left behind.

Students valued being able to refer back to recorded lectures at their own pace, both to clear up misunderstandings, as well as using these as a study tool to test themselves. In this sense, flexibility and weaker framing over pace support epistemological access.

> *I mostly enjoy the fact that all the lectures are recorded, meaning even if you miss a lecture, you can still go back and watch it. Or if you didn't understand from let's say today's lecture you can just go back and rewatch it again and have a better understanding of what was discussed.*
>
> *…I usually even pause and then try and write the way I understood the thing and sometimes, let's say during the lecture, they give us a question. I will just pause it there and try and answer it on my own and then look at the way the lecturer did it to see if my answer was ok or where did I go wrong.*
>
> *(student 1)*

While the following student does not follow the pacing and sequence exactly as it is suggested on the learner management system, she uses the suggested sequence and pace indications strategically to manage her time and to decide which in person sessions she will or will not attend.

> *In a week I like doing... the tabs are open... I like doing lesson 1, lesson 2 Monday, and then going for the lectures Tuesday, because I know they will do lesson 1, lesson 2. And then I will go for the lectures. And then later Tuesday I will do the Wednesday and the Thursday so that I could start my [weekly problem set]. I will do for the Wednesday and Thursday and I start my [weekly problem set] and I do it. If it's a practical I will start my practical doing it, putting the aims and everything, and then I think on Friday I will go for the help session. On Thursday, most of Thursday I go for the lectures. Sometimes if I understand I won't go then. But if I don't understand I will go and then ask questions. And then on Friday I will go for the help sessions, which is they are good and I get all my answers there, so most of the things I will get high marks because of the help session. It helps a lot.*
>
> *(Nemhara, student)*

This student also valued recorded lectures and online course material for its convenience and flexibility. They felt that a blended approach was ideal, as they also valued the immediacy, responsiveness, and synchronous nature of contact elements, such as being able to seek peer and teaching team support in a contact class.

What I enjoy about online is that sometimes, you can't always get to campus or you just feel a bit tired that day. You could stay at home, do the work sufficiently on your own. And they upload the lectures, so you can watch those. So, I like having online as well. And in person for if you like really need help in that moment, or somebody is sitting next to you and showing you how to do it. You could go to your professor after the class. So, I like both, ja.

...in class I preferred... We were there, and professor was in front, we could ask questions on the spot if we wanted to.

(student 6)

The above extract and particularly the references to 'in that moment' and 'on the spot' point to the important role that the synchronous, in-person sessions play in supporting immediacy and responsiveness in teaching and learning. The whiteboard sessions, for example, are a setting in which responsiveness and immediacy are encouraged. The teaching team positions these sessions as informal and student-led. Although the sessions are time-bound in the sense that they take place in predetermined lecture slots for a finite period of time, students do have a great deal of input in shaping the pace of learning in these sessions. The teaching team aims to be responsive, flexible, and adaptable in their teaching. Because the core course content is housed on the online course site, this allows for the in-person time to be reserved for responsive approaches based on student needs and misunderstandings, active learning, group work, and collaboration. Often in the whiteboard sessions students are given the option of suggesting exercises to work on based on activities they find tricky. Students are required to attend some of the sessions, but they are not required to submit any work for grading. The removal of defined session outcomes thus further supports flexibility in pacing as students can spend as long grappling with exercises as they need without the pressure of a submission at the end. The teaching team endeavours to play a facilitating role in these sessions, responding to the level of progress and needs of the students and are thus responsive to students' pacing.

While both online and contact learning environments display flexibility in pace, the contact learning environment features an immediacy and responsiveness absent in the online space. Interestingly, hand gestures are used in the contact class as a teaching tool, as well as a way to get immediate

feedback from the class. At the beginning of one of the whiteboard sessions, students are asked to indicate how they are feeling out of five by holding up the relevant number of fingers on one hand. They are asked to do this again at the end of the class in response to a number of questions, including how many days a week they come into campus, how many days they work through the online lessons pages, and how confident they are feeling with their work rhythm. As a teaching tool, the convenor uses hand symbols or gestures to illustrate the graphs they are working on. At one point she asks for the class's attention and then indicates with hand symbols, 'if this is the x axis, and this is the y axis, what is z?' Most of the class responds via a hand gesture to indicate the line and when she sees that most of them are correct, she quickly moves on. At other points in the class, she uses these hand gestures to illustrate what is feasible on the graphs, 'you cannot do this without your right hand, your fingers won't move back like that, so what is it?' Often she will respond to a pair's questions by making a hand gesture to illustrate lines on the graph, and sometimes she will ask them to do the same in order to address their own question, 'show me', 'if your hand goes off the board, what direction is this?', 'what do you want to do with your hand?' Evidently this approach to conceptualising the graphs is effective for many students as, even when she is not present, a pair will often use hand gestures amongst each other to work through the activity and visualise the graph. This behaviour, modelled in the physical space, is thus adopted as a way for students to work through activities.

Often, the convenor will ask the class to pause and look at her and then ask them several short questions. These are generally clarification points she has gathered by walking around the class and seeing where students are getting stuck, allowing for a responsiveness in her teaching. Students generally respond via hand gestures or nodding their heads. There are few verbal responses. She will sometimes ask a question and look around to see if all students are nodding and then quickly move on. If students are not nodding or indicating their understanding physically, she will build a fuller explanation, often by going back to the basics of an equation. The pace of the session is thus responsive to student needs and understandings.

The course tutor is also responsive in his teaching in one of the whiteboard sessions. When helping a group of students he refers to their whiteboard, asking a few quick-fire questions to gauge their confusion and then writes on the whiteboard to help them in understanding where they went wrong. When he senses that several students are confused about the same equation, he calls the entire class's attention to that whiteboard and starts writing the equation step-by-step, pausing at each step to ask them questions and see if they are following. At one point, when he can see that students are not following, he re-starts his explanation and goes through it until he can see sufficient nods among the students to move on. Again, this responsive teaching approach requires flexibility in pacing.

Similarly, the lab sessions display flexibility in pacing and are somewhat informal and student-led in nature. Students use the lab in pre-booked slots that are time-bound, but the data collection they conduct in the lab is self-driven and self-paced based on how long it takes students to collect the necessary data, which varies by student/pairs. Students are also able to leave when they have finished their data collection. Again, the teaching team plays a responsive, facilitating role. The tutors in the lab session, for example, describe their role as both answering questions but also ensuring that students are on track and focussing on the appropriate aspects in the session. A complete weakening of framing over pacing in these sessions is thus not appropriate as the teaching team still plays an important guiding role in ensuring the students are meeting the intended learning outcomes, although there is flexibility in how they get there and how long it takes.

The course convenor takes an intentional approach to her teaching and online learning design, and believes that responsiveness, flexibility in pace, and student choice are pedagogically valuable. These principles are clearly fostered in the physical learning environment as discussed above, as well as in the online learning environment. On the LMS, comment boxes and polls allow the lecturer to gauge which topics require further elaboration and where students are confused, and she incorporates that feedback into her subsequent lectures. In this sense, both the online and contact learning

environments support responsiveness in teaching and learning, although the contact spaces offer immediacy and synchronous engagement which is generally not supported by the online learning environment. This data suggests that it is useful to consider various facets to Bernstein's concept of 'pace', including responsiveness, immediacy, and synchronous vs asynchronous activities.

On the online course site students have the autonomy to work through course content at their own pace, in an asynchronous fashion, although clear guidance is provided regarding the suggested pacing, e.g. through learning time estimations. Framing over pace (control dimension) in the online space can thus be coded as F-. In the contact space, on the other hand, activities are time-bound but there is flexibility within the sessions themselves for students to work at their own pace, often in pairs or groups. The teaching does, however, play an important guiding and facilitating role to ensure that student misunderstandings are addressed, and that students remain on track. Framing over pace (control dimension) in the physical space can thus be coded as F+. In both cases, framing over pace (explicit/implicit dimension) is suggested, particularly via instructional text on the online course site, thus suggesting a code of F+.

Physics can be characterised as a hierarchical knowledge structure given the importance of foundational concepts and principles that students build on, integrating more complex and abstract forms of knowledge as they progress (Muller, 2014). Sequence is important in this case, given the sequential dependencies within the discipline. Students need to understand foundational concepts before progressing to learning new concepts (Wheelahan, 2023), thus sequence is an important consideration in relation to students' epistemological access. This is evident in the physics course in, for example, the tightly structured sequence of elements on the online course site where days and dates are used to indicate the suggested sequence of work. Subsequent lessons build on previous concepts and students are encouraged to refer to and draw on previous concepts – both from the course and from school physics – to complete the exercises. The concept maps students are encouraged to create and update as they work through the lessons are likely an effective way to

show the interconnectedness of concepts and how they build on each other. While sequence is emphasized and a clear sequence and learning path is presented on the online course site on the LMS, students have some control over the sequence of their learning as they can access different elements in the order they choose, without impacting other students. In addition, there are no dependencies on the online course site requiring students to complete one activity before the next one becomes available. These points indicate a weakening of framing over sequence in the online space.

In the synchronous in-person classes, students also have some input into their sequence of work as these sessions are often driven by aspects with which they are struggling and need assistance. In a whiteboard session at the end of the week, as an example, students may want to go back to equations covered at the very start of the week that they are confused about. Within the intricacies of the work itself, however, such as the steps of an equation, the teaching team holds a firmer grasp on sequencing given the sequential dependencies inherent in understanding the content of the discipline. As described earlier in this section, for example, the teaching team often takes a step-by-step approach to the equations covered in the sessions, looking out for students' assent (e.g. via nodding) at each step of the equation before moving on to the next. The teaching team recognises how important sequential dependencies are in the discipline and how it is vital that students grasp certain concepts before being able to progress onto others, and their teaching approach reflects this.

In the asynchronous setting of the online course site the suggested sequence of learning is clearly signposted via the course structure, but students do have some autonomy over the sequence in which they access the content, and thus a code of F- is appropriate here (control dimension). In the synchronous in-person sessions students have some sway over the sequence in which concepts are covered, but when it comes down to the intricacies of the equations, the teaching team is required to have a stronger grasp over sequencing to ensure that students grasp earlier concepts before progressing. Framing over sequence (control dimension) is thus coded at F+ in the physical space. In

both cases, when it comes to framing over sequence (explicit/implicit dimension), the teaching team is at pains to make explicit the sequencing of the content and how important sequential dependencies are in this discipline, and this is done via the structuring of the online course site, the referencing of foundational concepts as an introduction to new concepts that build on these, and the step-by-step approach used in teaching. A code of F++ is thus appropriate in this case (explicit/implicit dimension).

5.4 The online course site and universal design for learning

Not only is the course content on the course site well-organised and logically structured, with a clear learning path, and effective utilisation of the learning tools available on the LMS, universal design for learning (UDL) principles are also in evidence. Although the course convenor commented that she was not familiar with UDL theory and its principles, she intentionally implements best practices from online instructional design and makes a concerted effort to incorporate choice and flexibility into her online course design and teaching – two cornerstones of UDL. The course convenor has designed the lessons pages to feature the 'language of choice' and students have the option of accessing the course content via a variety of formats, e.g. text notes, voicenotes, simulations, videos, etc.

> *To see the derivation of Bernoulli's equation, you can watch this 10-minute video (Bernoulli derivation, 13 MB) by [lecturer]. (Remember that you can skip through the slides by using the arrows under the video.) Alternatively, you can look in your textbook, which does the derivation in reverse: it starts with Bernoulli's equation, and then shows that it implies conservation of energy (OpenStax Section 12.2). Or maybe you want to just accept the equation as it is!*
>
> *(Online course site, Week 3)*
>
> ***
>
> *You can check your answers using this Java simulation*, or watch a silent 1-min video of me using the simulation (click here: [SHM Simulation] , 1 MB - or else click the link below).*
>
> *(Online course site, Week 7)*

This caters to UDL principles, particularly multiple means of representation, in that content is presented in more than one format and students have options regarding how they engage with the content.

> *I was really interested in watching my own learning journey in terms of online teaching through last year and how long it took me as a very experienced educator who has done a lot of thinking about teaching, knows a lot of learning theory, a lot of stuff about good practice in science teaching, how long it took me to translate some of the stuff into the online environment.*
>
> *I battled to settle into an online persona. It took me ages to realise that I needed to use the language of choice. I know choice is important in learning, but I wasn't using the language of choice. I was using 'do this', 'do that'.*
>
> *(Lesley, convenor)*

The course is also kept data-light and when external links are used students are reminded that these external sites are not zero-rated in terms of data and, in that case, data size is indicated. Some information is conveyed via colour or bolding, however, and it would be advisable to convey that information via text as well, for accessibility.

The UDL guidelines emphasize the importance of multiple means of representation of the same content for students' varying preferences, as well as to ensure accessibility for students with disabilities – e.g. alternatives for visual or auditory information (Dalton et al., 2019; Dell, Dell & Blackwell, 2015). Students' descriptions of their use of content on the lessons pages provide interesting illustrations of this theory. Rather than sticking to certain types of content based solely on static preferences, these students drew on the content in diverse, interesting, and strategic ways to suit the stages in the learning process, their energy levels, or their time management. For this student, reading the text and listening to the voice notes simultaneously is useful in fully engaging with the content and staying focussed when learning.

> *...I like the options, especially the voice text thing because my mind likes to wander around, so when I'm reading something, I can have something that comes into my mind and I forget that I'm reading so having that voice thing there, it helps keep me focussed and reading what I'm reading. Sort of like watching a movie with subtitles. It keeps you engaged.*
>
> *(student 1)*

This student, on the other hand, prefers to listen to the voice note first as an introduction and overview to the concept, and then to read the text as a confirmation and full understanding of the concept.

> *...I would listen to the voice note, I'd listen to it, even though I know it is exactly the same thing I'm going to read...after that when I'm reading I know what to expect. I know because I've already listened to the voice note. It was helpful...*
>
> *...when you read it, it's more like you are confirming what you heard [course convenor] saying in that voice note... I feel like then you would be able to understand it more...*
>
> *(student 4)*

When revising, however, the student chooses to read the text only and does not listen to the voice notes again.

I did that when I was revising. Because when I was preparing for the test, I went through all the lecture notes. All of them, started over. So, I didn't listen to the voice notes, I only read, cause it's not my first time doing...

(student 4)

The voice notes have already served their purpose as an introduction to and overview of the content so for the purposes of revision they are no longer needed. This demonstrates how choice and flexibility in multiple means of representation of content allows students to use content in different ways in different stages of their learning process.

Other students shift between the voice notes, text, and other content formats based on mood and energy levels.

I wouldn't say I always used the voice recordings or the readings, but it kinda depends on the day. So, I get to choose which one I feel like doing...

I feel like when it's earlier in the week and I have more energy then I will do the reading, but towards like the end of the week, when I've had to do a lot, then I enjoy just listening to what she's saying.

(student 5)

***

And I think the way they are laying it out, the content and everything, is good. I found it helpful, because when you are in the mood to see pictures, watch videos, when you are in the mood to listen to voice notes, like when maybe you are revising. And then when you are studying you read through...

(Nemhara, student)

This student commented that she did not listen to the voice notes as the voice notes were the same content as the text and she thus did not find it worthwhile to do both. She would read through the text in the first instance but found the videos valuable in explicating step-by-step processes, in the case of an equation, for example.

Because most of the time I would read the thing because I'd focus better when I'm forced to focus on the reading. And then if that didn't work then I could go to the video and listen to her explain and see her write it down, step-by-step, and not just the whole equation one time. Let's see her do it and see where it comes from.

(student 6)

The course also supports multiple means of action and expression as students are provided with a variety of ways in which to demonstrate their learning – e.g. lab reports, numerical problems, short writing tasks, multiple choice questions, and so on. In one of the whiteboard sessions the course tutor discusses an upcoming report. He advises the students that they have a choice in how they complete this task and illustrate their workings - writing it out in text, numerically via equations, visually through diagrams, or via Excel, or programming languages like Python.

As is evident from the above insights, students are displaying strategic, purposeful, and goal-directed behaviours in how they navigate and draw on the various forms of content from the lessons pages in their learning – some of the behaviours that are cornerstones of UDL's concept of an 'expert learner' (Rose & Gravel, 2009; McKenzie & Karisa, 2021; CAST, 2017). The extract included above in the discussion on pace and sequence, from the student who set their own pace and sequence through the online lessons each week and used these to determine which contact sessions they would attend, indicates the way in which students behave strategically in their time and workload management. Using the flexibility of the online course site, students can determine where they need additional support and where they can save time. The UDL principle of multiple means of representation implemented on the course site enables student choice and flexibility, key aspects in supporting inclusivity in the online learning environment, and on the course as a whole. The environment thus further enables the cultivation of 'expert learners' who take ownership of their own learning, and display strategic, purposeful, and goal-directed behaviours.

5.5 Learning by doing

The formats of both the physical and online learning environments, support one of the key principles of the course and a necessary component of students' epistemological access to the discipline – the importance of learning by doing. The bulk of the synchronous, in-person sessions are spent by students either working through equations on the whiteboards or collecting data via the experiments in the labs. In both cases, the focus is on student-led, active learning, with the teaching team playing a guiding and facilitating role. The fact that the activities in the whiteboard sessions are not graded supports learning by doing and encourages trial and error. Due to inequalities in their schooling environments, many students only access science laboratories for the first time when they come to university. Learning by doing in a lab setting – conducting experiments, collecting data, etc. - is integral to the physics discipline but requires the appropriate physical facilities.

> *We didn't have a lab in my school. So, I was surprised – a lab. Everything is there, every material is there in the lab. We just wrote things down that we didn't understand. Like we would watch videos and they will say like this is how it is done and everything. Like you won't get to see the actual thing.*
>
> *(Nemhara, student)*
>
> ***
>
> *...it's always nice working with the things and getting the data yourself and understanding things how they are supposed to work, how to use certain things in the lab, instead of just seeing them on the question paper and you don't understand how does it work.*
>
> *(student 1)*

Continuous opportunities for learning by doing and trial and error are also available on the online course site in the form of various activities and simulations, although these are generally completed individually rather than in pairs.

The simulations in the course provide students with an opportunity to experiment and play around without the risk of failure, as there is no defined question or exercise. As these simulations are accessed on a website rather than demonstrated in class, students are free to spend as long as they wish on them, and other students cannot see what they have done. This supports the development of valued disciplinary academic literacies, such as learning by doing, active learning, and making and

learning from mistakes. Another benefit of these simulations is they are data-light, improving their accessibility.

> *There are the most phenomenal simulations for physics, virtual laboratory stuff. So, for example, a canon that fires, or you can choose a canon ball, or a piano, or a pumpkin, and you can change the starting conditions, the angle, the speed, whether there is air resistance or not, and then you can get actual data from the simulation. So, it looks cute, it looks cartoony, and it gives actual data. So, students can experiment with the simulations, they can push and pull, click and drag, make things happen.*
>
> *(Lesley, convenor)*

In terms of the simulations, there were mixed feelings from students regarding the value of these for learning the concepts. This student preferred to learn the concepts via the explanatory text following the simulations - learning theoretically rather than practically.

> *...I only did one simulation out of all those that were there... the reason for the simulation or the what it is trying to teach us. If I know what it's trying to... for example the simulation for... there was that pipe that there's, in the middle the area is narrowed, then it continues again. Ja, that simulation I knew that ok the pressure is gonna increase, the speed is going to decrease...but if I know it's main purpose, then I don't really see a reason to do it.*
>
> *But I would read the notes, cause underneath the simulation [course convenor] will write her notes, ok this is what the simulation is about...*
>
> *(student 4)*

Similarly, this student also learnt the concepts theoretically via text rather than the simulation. They found using the simulation confusing and thus an obstacle to their learning of the concept.

> *I wouldn't say I found them useful. But from time to time, if I could, I would use them but there were some times where for example we were talking about pressure and everything where I would have to use them, but it was a bit of an obstacle trying to figure out how it works and everything, so I didn't find the concepts that I needed for it to be explained explainable using the simulations. But it was fine because I already know, I had already grasped it using the stuff that she had taught us, you know from like the notes and everything.*
>
> *(student 2)*

Other students had a more positive attitude to the simulations and the opportunity for practical learning of the concepts and how they work, which is not always possible in real life. They also enjoyed the playful experimentation.

The following student did not feel confident in their use of the simulations but still enjoyed using them as it made them feel like a valid member of the disciplinary community, thus adding to their self-confidence within the physics discipline.

> *Sometimes I would use the simulation. I'm not good at using the simulation but I love it (laughs). I'm not good at it, but I love using the simulation. It makes me feel like ok, I'm in physics (laughs). It makes me feel good and everything.*
>
> *(Nemhara, student)*

The student reflects on their use of the simulations and how they feel unsure of the correct use and purpose of the simulations.

> *Sometimes I would not understand why we are doing this. I would play around with it. I would find out later why I would do this. Like I would use the simulation to find this and that and I would be confused. Maybe I'm confused with the first part of the content and then I go and play with the simulation and I come back and find out no, this thing was not meant for me to play with it, actually there's something like to find out some forces, some, like there was a simulation for when you move from a big part to a narrow part of a pipe, what happens. I didn't notice that, I was just playing around, and then I came back and I found ok, this is what is happening, but at first I didn't understand. I thought I'm going to play there.*
>
> *(Nemhara, student)*

While the student expresses that she does not understand the purpose of the simulations, it is evident that with further context and explanation via other course materials she eventually does understand the concept once she revisits the simulation. Trial and error and experimentation are important in the physics discipline and thus the fact that she was not able to grasp the concept in the first instance is not necessarily an obstacle but rather an intentional aspect of the learning process. The simulations provide a low-stakes environment in which to play around and experiment, often quite aimlessly. Students are then able to return to these simulations later when they have an intention in mind and then direct their 'play' or experimentation to grasp theoretical concepts. The value of the online learning environment in this example is that the student was able to revisit the simulation at their leisure once they had a better grasp of the concept ("I come back and find out..."). With the new knowledge they had acquired via other content formats, they are able to better understand the significance of the simulation. The learning environment supports play,

experimentation, and looping back in the pedagogy – all important in grasping concepts in the physics discipline.

Students engage in learning by doing in many of the Excel tasks on the course as well where they work with equations. Competence in using Excel is positioned as an important digital literacy, not only for the course but for students' other courses and in preparing for professional work. For most students, this was their first time using Excel in an academic sense and it posed quite a challenge – a challenge amplified for some by their limited exposure to technology and laptops in their home and schooling backgrounds. The teaching team thus assumes limited previous exposure to or familiarity with the software from students by starting with the very basics of using the tool. On the online course site, for example, content including videos and notes take students step-by-step through some of the fundamentals of using Excel, including how to determine what a cell is called (e.g. H3) and how to drag and autofill. Support and guidance in using Excel is provided by teaching staff in the whiteboard tutorials, and there are also instances of students who are more confident in using technology taking on the peer teacher role in these spaces.

As this section indicates, both the physical and online learning environments offer valuable opportunities for learning by doing on the course, however in the online environment this work is generally self-directed and independent, while the physical learning space offers opportunities for peer-to-peer learning, support, and collaboration.

5.6 Peer to peer learning, support, and collaboration

Given the student-led format of the whiteboard and lab sessions, and thus the weaker framing over pacing, these spaces support collaboration and peer-to-peer learning. In the whiteboard sessions I observed instances when one student would take the lead in a group, doing most of the writing on the board and teaching the other students in the group. When students were confused, they would often wander around to other groups to ask questions or to see what they were doing on their whiteboards. Sometimes students would provide one-on-one guidance to other students, whether on the whiteboard, or at times on a laptop. These sessions offer the opportunity to create social bonds as well, with students striking up conversations unrelated to coursework.

In an informal chat with one of the tutors, she explains that at first students were hesitant in the lab sessions and wanted to be told what to do. She comments that now students are displaying a great deal more independence, evident in their behaviour in this session. When I asked the course convenor whether students ever feel self-conscious about attempting exercises in front of their peers in the whiteboard sessions, she describes the combination of factors in these sessions as 'magic'. Because they work in pairs, she explains that she doesn't know who writes what, it is easy to erase when mistakes are made, and the space is relatively informal.

The course convenor feels that group work and collaboration are important for students' learning of physics and that peer-to-peer support and the building of these support networks is important for all students, particularly those in their first year making the difficult transition into university. She often encourages students to work together and to go to each other for help. She views the whiteboard and lab sessions as important spaces to enable both academic collaboration and the creation of social bonds which she finds very difficult to replicate online, although they were left with no other choice in the peak of COVID lockdowns. The convenor thus values the online space for many reasons, including the flexibility in pace and autonomy it allows, and the ability to provide content in a variety of formats, but feels that the physical space is vital for peer-to-peer learning, support, and

collaboration. As lockdown restrictions were slowly lifted, the convenor opted to keep core content online and use the in-person slots available to run the whiteboard tutorials to support academic collaboration and the building of social bonds.

> *So, the biggest loss in terms of online learning is not having those spaces of students engaging with each other.*
>
> *...the focus really is on learning rather than getting marks, there is a huge energy to those, and it gets students beating other students, working collaboratively and that's really powerful and we lose that in the online space.*
>
> *...students working collaboratively... we really manage to get that working in whiteboard tutorials, and I've managed to get them to do it this year. And so, in my course evaluation I ask them, if you had a question, who did you turn to first?*
>
> *...the thing they ticked more than anything else this year was another student in the class, and that is only because I've been able to facilitate them building relationships with students through the whiteboard tutorials.*
>
> *(Lesley, convenor)*

The course evaluations also indicated that students rated the whiteboard tutorials most highly in terms of their learning of physics. Students appreciated the valuable peer-to-peer learning, collaboration, and socialising which took place in this space as reflected in the student interviews as well. Given the importance of trial and error in the physics discipline, these sessions provide students with a low-stakes, comfortable environment in which to test things out with peers. Students described the value of being able to 'figure it out together' and 'share our knowledge', as well as learning from peers.

> *I think it's helpful because you get to get other ideas and when you work in pairs, I think there are more minds for you to think. If you are confused the other will try and explain and you get the idea, like there some ideas, in physics sometimes you have to explain using the principles and everything and so when you are confused the other one won't be confused so you will help each other out, and then two minds are on it. It's better.*
>
> *The other person uses a different calculation but reaching the same answer – your mind will be open, so you will know so many things when you work in pairs rather than working alone. Then you won't get frustrated when you don't get the right answer (laughs).*
>
> *(Nemhara, student)*

One student described walking over to other students and groups in the whiteboard sessions and realising that other students were struggling with the same questions she was struggling with,

leading her to feel less self-conscious. This student describes the value of being able to explain a concept to a peer as a way to enrich one's own learning.

> *I prefer working by myself but I'm willing to try working with others to try and have more interaction and to test whether I understand this, because when you are alone you can just be like oh, I understand this thing. But if you can't explain it to another person, you don't really understand it. So, it helps test whether or not I really understand this specific section or not.*
>
> *(student 1)*

The ways in which the contact learning environments were structured reflected a weakening of classification and weaker framing over hierarchical rules – an ideal environment in which to foster peer learning, collaboration, and a social dimension.

5.7 Pastoral care and hierarchical rules

In addition to support in academics, this course plays a pastoral care and social support role and the teaching team aim to have a supportive and responsive relationship with their students. The pastoral care role played by the teaching team, and the emphasis placed on a holistic university experience which includes self-care and adequate sleep, is evident in both the online and contact spaces. On the online lessons pages this is evident in the constant reminders to rest, take care of oneself, and focus on one's mental health, as well as the video the convenor creates on the importance of sleep and its role in mental and physical health.

> *I hope you are well in body and mind. (That's the most important thing! You can't study effectively if you are sick or depressed, so looking after yourself must be your top priority.)*
>
> *(Online course site, Week 2)*

In the contact space, the convenor begins one of the whiteboard sessions by taking the students on a short, guided meditation. Students are asked to close their eyes and are taken through several breathing and meditation exercises. Shortly afterward, she asks students to indicate how they are feeling on a scale of five by holding up the relevant number of fingers on one hand.

The pastoral care and coaching role played by the teaching team is supported by efforts to weaken framing over hierarchical rules in both the online and contact spaces. This is often done in the online space through informal and warm messages on the lessons pages, the use of emojis, and encouraging students to get in touch with staff via email and WhatsApp at any time of day or night. Weakened framing over hierarchical rules is also evident in the contact space as the teaching team shares their intentions to create informal learning spaces in the whiteboard tutorials and lab sessions. The sessions are largely student-led, with teaching staff playing a facilitator role rather than 'sage on the stage' and students being able to wander around the venues, chat, and socialise.

The course convenor fills an academic advising role, which includes curriculum and developmental advising, within the broader faculty and university which she feels enhances her ability to provide social support to students. In this role she emphasizes not only the academic sphere, but the

psychosocial aspects associated with the difficult transition to university. She has developed personal development, study, and wellness toolkits that are provided on the LMS to all science faculty undergraduates. The convenor also organises coaching sessions with students who have performed poorly in tests. Interestingly, she remarks, 'physics is not the problem, it is all the other stuff' - the coaching sessions focus on time management, sleep, and social relationships.

The lecturer encourages open communication from students, and often solicits student feedback in both the online and physical learning environments.

> *(You may email/WhatsApp me at ANY time; I will respond when I can)*
>
> *If you have any comments that can be used to improve this lesson, we'd love to hear them! Or tell us what you enjoyed or found helpful...*
>
> *(Online course site, overview page)*

It is evident from the interviews that students valued the social support offered on the course and the responsiveness of the teaching team. Students particularly valued the guidance provided on healthy sleep routines, self-care, and wellness, with some students finding this the most valuable aspect of the course.

> *She has like this motherly feel to her. We spoke about that the first time we got her. She feels like a mother. Like she actually cares about us more than the other lecturers.*
>
> *(student 6)*
>
> ***
>
> *...they were very helpful. It was nice. When you don't understand something, you just raise up your hand, the tutor will come to you and, ja, you tell them your problem, and then they will try to explain...*
>
> *That's where I realised sleep is important, to a point whereby now I sleep for nine hours, ten sometime, eight... I would say that's one thing this course helped me…*
>
> *(student 4)*
>
> ***
>
> *…one of my favourite parts about the course... sometimes I do things too quickly and forget to slow down, so I kind of get all worked up, and she always reminds us to slow down. And I feel like it also helps with my memory, cause it helps me remember things easier, and be less nervous for when writing a test.*
>
> *(student 5)*

In a similar way to the other extended degree programmes in this study, students valued the more holistic social and life skills support they received on the course that filled the gaps in terms of various types of capital that more privileged students may take for granted. This contrasted with their other mainstream courses where they felt the focus was purely academic. When asked if their other courses placed the same emphasis on aspects like sleep and self-care, students always responded in the negative.

To foster a supportive and relatively informal space in which to provide social support and pastoral care, the teaching team has intentionally weakened the hierarchical elements on the course and avoided an explicit hierarchy in both the online and physical spaces. The hierarchy is not, however, completely masked as the teaching team still occupy teaching and facilitation roles and determine course content and assessment for the most part. A code of F- for hierarchical rules (explicit/implicit dimension) is thus appropriate. Given the efforts to reduce hierarchy in the physical learning environment through the informal structure and student-led nature of the sessions, hierarchical rules (control dimension) in the contact space can be coded as F+. In the online space, a code of F- is appropriate given the inherently non-hierarchical environment with some indications of hierarchy.

5.8 Selection

The course features relatively strong framing over selection and draws on well-defined and established physics knowledge. The topics of assessments are also quite narrowly defined, although at times students have some choice in how they demonstrate their learning, as discussed above. Given the hierarchical knowledge structure of the discipline and the accompanying sequential dependencies, a strong level of framing over content selection is required as the teaching team needs to ensure that foundational physics concepts are covered sufficiently before students can progress to subsequent concepts and advance in their disciplinary knowledge. There are instances where students have some minor input in selection, such as deciding on what to cover in the whiteboard sessions based on where they are struggling, although they are still making selections from an existing, tightly defined curriculum.

In several of the online lessons, sections on indigenous or other knowledges that have historically been marginalised in the physics discipline, and in science more broadly are included, such as misattribution of scientific discoveries, and valuable scientific knowledge that was lost in Southern Africa. Addressing the student directly, the content poses a reminder that within the current time period and context, students have the opportunity to be scientists, that may not have been possible in the past. Various links are provided to optional reading on these topics for students' interest. Although this content points to decolonisation of science, it is generally included as an add-on to the core curriculum which remains reflective of conventional, Western scientific knowledge.

Given the strong framing over selection of content by the teaching team and a tightly defined curriculum with few instances of student input on selection in low stakes settings, a code of F+ for framing over selection is appropriate in this case. As discussed, the strong framing over selection is an intentional way in which students' epistemological access is supported given the hierarchical structure and sequential dependencies of the discipline.

5.9 Evaluative criteria

The teaching team is often explicit regarding evaluative criteria on the course, thus displaying strong framing, either referring directly to an upcoming test, or to how students are assessed more broadly in the course, such as in the examples from the online course site below:

> *Yesterday you learnt Archimedes principle, and today you will use it to solve some problems. You can expect to see problems like this in your test next Friday.*
>
> ***
>
> *So how does it work? This explanation is good practice for the conceptual questions I like to ask in tests! So I've given it to you in your WPS*
>
> *(Online course site)*

Students are generally provided with marking rubrics, detailed guidelines, frameworks, and instructions for their assessments. In the weeks that students are required to complete assessments in the labs, for example, they are given a laboratory assessment schedule listing the various sections of the assessment (e.g. data collection, data analysis) and a mark allocation for each, which is helpful in explicating the evaluative criteria for the tasks. I observed students bringing this assessment schedule to their data collection session in the lab and referring to it as they worked through their tasks. The assessment schedule does, however, contain items that could be considered vague and up to interpretation. The schedule mentions 'sufficient data points', for example – how does one know when they have reached sufficient data points? As another example, how is 'reasoning of analysis easy to follow' determined? In the case of 'layout enhances report' - what is a suitable layout in this discipline and in which ways should this enhance the report? Without modelling, exemplars, or explicit guidance, these assessment schedules may not be wholly explicit in terms of evaluative criteria. Transparency regarding evaluative criteria is crucial for students' development of necessary academic literacies and access to powerful disciplinary knowledge, especially when students are still new to the discipline.

In one of the whiteboard sessions, the course tutor is explicit regarding how marks are awarded for the reports students are expected to compile. He stresses the importance of including everything

that students have done in their calculations, as they will receive marks for each step regardless of whether the final answer is incorrect. Joking that shy of switching their laptops on, he states that every other step should be included in the report. By referring to existing equations on the whiteboard he points to individual lines, explaining that each line would receive a point. He gestures to the whole board excluding the final answer and says that the marks are coming from 'that', and thus it should appear in the final report.

Other important academic literacies are addressed in this session with reference to the reports. The tutor advises students to get into good academic habits now and, although the students will not be graded on certain aspects, he does feel that they are important for subsequent years of the degree. These habits include good spelling and grammar, and the free online tool, Grammarly, is recommended in this regard. The tutor also suggests integrating theoretical concepts into the introduction of the reports, which students can research online or in textbooks. He advises on the importance of getting into the habit of referencing, although formal academic referencing is not a key requirement at this stage.

The above points demonstrate the teaching team's efforts to explicate evaluative criteria and their control over these criteria. As mentioned earlier in the chapter, students do have some input in how they demonstrate their learning, such as in the case of the report where they are advised of their choice in documenting their findings either via text, visuals, numerical equations, or using various software programmes. In terms of the explicit/implicit dimension, the teaching team explicates evaluative criteria in several ways, e.g. via hints and references to examinable material, and detailed marking rubrics and assessment schedules, although there is some opacity in how the various aspects of the assessment schedules are addressed, as well as room for subjectivity from the graders. A code of F+ for both the control and explicit/implicit dimensions of framing over evaluative criteria is thus appropriate in this case.

5.10 A blended approach

The course convenor is of the view that a blended, flipped classroom approach which combines the affordances and opportunities of both the online and contact learning environments is ideal – a realisation borne out in part by the COVID lockdowns which necessitated a shift to online teaching and learning. The convenor feels, for example, that transmission of content via the online course site is more effective than the traditional lecture format, whereas teaching and learning time in the contact space can be used optimally and intentionally for practical exercises (e.g. in the lab and whiteboard sessions), demonstrations, peer-to-peer learning and collaboration, and the immediacy of addressing student questions and misunderstandings in a synchronous setting. The online learning environment is valuable in the flexibility of pace and sequence that it allows, and the student choice and autonomy – supporting epistemological access for a diverse range of students.

> *I don't think students spending the whole morning moving from lecture to lecture is the best use of their learning time. Their precious learning time.*
>
> *Not that I think watching videos of lectures is the best way to learn either... (laughs). But ja, students were not attending lectures [before COVID] because they did not see the value in them. ...lectures just are medieval really in their format. It comes from a time when you could only get the information from the sage on the stage.*
>
> *...it's very difficult when you've got a class that's got a very wide range of abilities in it. But I mean, on the other hand, that's where the online platform is helpful as well, because there's more different pathways through an online lesson.*
>
> *So, you can cater for a range of different levels.*
>
> *(Lesley, convenor)*

The in-person sessions are focused on active learning, collaboration, and trial and error, which, as mentioned, are crucial for epistemological access in the physics discipline. Having core content presented on the online course site, which students can tackle at their own pace, allows for limited in-person class time to be utilised optimally for these important functions that are best supported in physical learning environments, and to reduce cognitive load (Swartz, Gachago and Belford, 2018). The course convenor is of the view that a significant factor in students' academic struggles is the brevity of the university's academic terms which she feels do not give students sufficient time to

consolidate and revise their learning. Although the blended approach does not resolve this problem, it goes some way to addressing the need for flexibility in pace to support epistemological access.

5.11 Table 13: Coding summary: Physics case study

		Framing									Classification	
		Pace		Sequence		Hierarchical rules		Evaluative criteria		Selection	Classification: course and other disciplines	Classification: course content and everyday knowledge/examples
		Control	explicit/ implicit	Control	explicit/ implicit	Control	explicit/ implicit	Control	explicit / implicit	Control		
Codes from the data	**Online**	F-	F+	F-	F++	F-	F-	F+	F+	F+	C+	C-
	Contact	F+	F+	F+	F++	F+	F-	F+	F+	F+		

5.12 Conclusions

The blended pedagogic practices on the physics course reflect the teaching team's aims to support students' epistemological access to valued academic literacies in the physics discipline and their careful consideration of the regulative discourse in how they construct the powerful disciplinary knower, their characteristics, and behaviour. They characterise this knower as one who is curious, resilient, not deterred by failure, and interested in finding out how things work in a practical, hands-on way via active learning and trial and error.

Physics as a discipline is specialised in its theory, symbols, and terminology, but it provides a way of understanding phenomena in the real world and thus weakened classification between the course and the everyday is in evidence. The course does, however, present stronger classification between physics and other disciplines and thus constructs the discipline as relatively insular and specialised in this regard.

To support students' epistemological access in relation to the above points, the teaching team have drawn on aspects of the instructional discourse in both online and contact learning environments to provide for enabling pedagogic practices. This has involved consideration of various constraints, including the already compressed academic year which they have found insufficient for consolidation and revision, the restrictions on contact teaching necessitated by COVID lockdowns at the time, and the digital and other inequalities that their students face.

Key principles underpinning their pedagogy – choice and flexibility – have been fostered, particularly in the online space where students have autonomy over their learning and choice in terms of how they access and navigate course content. Flexibility in pace, in particular, has been intentionally incorporated into course design given its role in supporting epistemological access for a diverse group of students. These aspects have, however, been carefully scaffolded via structured and descriptive online learning design to support students' self-regulation and time management during this difficult transitional period, and to encourage strategic learning behaviours and student

ownership. Attempts have thus been made to strengthen framing over pace and sequence in what can typically be a weakly framed space.

Active learning and trial and error are encouraged in both online and physical learning environments, although the online space is characterised by independent, self-directed work, while the physical space features peer-to-peer learning, collaboration, socialisation, and an immediacy and responsiveness in their teaching that the academic staff find it difficult to mirror online. The findings of this case study reflect the importance of learning by doing in grappling with physics concepts by, for example, conducting one's own experiments in a laboratory.

In both the online and physical spaces, the teaching team weakens framing over hierarchical rules somewhat as they feel that this fosters social support, the building of social ties, peer learning, and the creation of a comfortable, low-stakes setting in which trial and error and experimentation are encouraged.

While both spaces feature some flexibility over the various aspects of instructional discourse addressed above, the teaching team has made a concerted effort to explicate the sequencing of the discipline given its hierarchical knowledge structure and the accompanying sequential dependencies necessary for accessing disciplinary knowledge. The teaching team similarly exerts a strong influence over selection of content, reflecting a conventional physics curriculum necessary for the foundational support integral to students' further progression in the science faculty.

There are digital and other inequalities that students have grappled with in their home and schooling environments that have made the transition to university difficult, although these challenges have also nurtured their resilience and initiative – characteristics that are beneficial in this discipline and in their university careers as a whole. These inequalities have resulted in student struggles with some of the important digital literacies on the course, including the use of Excel which is integral to many of the tasks and assessments, and the use of desktop and laptop computers as opposed to mobile with which students are more familiar. The teaching team has made a concerted effort to support

the development of some of these digital literacies through, for example, assuming no prior knowledge of Excel and starting with fundamentals, but there are instances where students must take more initiative in the development of their digital literacies in, for example, locating online resources to supplement course content.

The teaching team controls how students are assessed and aim to be explicit in this regard, especially given concerns around epistemological access, and the course thus features strong framing over evaluative criteria. There are instances, however, where students have some input in how to demonstrate their learning, and some of the assessment criteria are not fully explicated or feature a degree of interpretation.

In general, students have a positive perception of the course and the extended programme as a whole, particularly given the extensive social support and flexible pacing offered. As discussed in this chapter, the teaching team has been careful and intentional in their blended pedagogic approach in order to fulfil the course aims. There are strong views regarding the pedagogic practices that are better suited to online or physical learning environments, and these are reflected in intentional curriculum, teaching, and online learning design of the physics course.

Chapter 6: Humanities Case Study

Students on the ECP in the humanities faculty at the university, which includes the humanities and social science courses in this study, requires students to complete at least two foundational first year courses focussed on academic reading, writing, and other academic literacies. Academic development support also extends beyond the first year in the form of additional tutorials for ECP students taking mainstream second- and third-year courses in the faculty. All students take the social science case study course in the first semester. In the second semester, based on their degree majors, they select either this humanities course if they are primarily majoring in humanities disciplines, or an equivalent social science-focussed course if those are their primary majors.

This humanities course supports students with the critical analysis and production of texts in the Humanities, including an exploration of argumentation and discourse. Major assessments on the course include assignments relating to the creation of a collection of texts and a critical analysis of these texts.

As a course specifically aimed at addressing educational inequalities faced by students on the extended degree programme, it is important that the often unspoken academic and digital literacies within the institution (particularly those related to Humanities disciplines) are illuminated. A major focus on this course is analysis and its various forms – including visual, multimodal, content, discourse, and narrative. While students may be faced with assignment or exam questions during their degrees that prompt them to 'analyse' a text (written or visual), often little more in the way of explicit instruction is provided. As the literature on academic literacies attests, it cannot be taken as a given that students enter university knowing how to write an essay, how to analyse a text, or other complex academic literacies. This course seeks to illuminate and guide students in this regard and provide them with the language and terminology to carry with them to their other disciplines.

In 2020 and 2021 the course was run online due to COVID lockdowns at the university and the convenor thus created online course content in the form of videos, notes, readings, and so on. In

2022, the course was run in a blended format with the core course content retained on the online course site and four in-person sessions a week being used for more active learning tasks, collaboration, and guided support. The course had around 90 students. The in person sessions were taught by two lecturers and followed the learning path and content on the LMS. The weekly sessions included two workshop lectures, one tutorial, and one lab session. The findings in this chapter are based on digital observations of the 2021 and 2022 online course sites, including eight weekly lessons pages, in-person observations of two workshop lectures and one lab session, interviews with six students on the course, and teaching team interviews with the course convenor, two lecturers, and the educational technologist that worked on the course until the end of 2021. The role of the educational technologist was to manage the technological aspects of the course – specifically the building and updating of the lessons pages on the LMS, and technical support during the lab sessions.

6.1 Blended course design

The course includes weekly lessons pages on the LMS that are populated with instructional text, readings, lecture videos, demo screencast videos, small tasks, and so on. In 2020 and 2021 students were split into eight tutorial groups and online tutorials took place in weekly chat rooms on the LMS. In 2022, given the easing of lockdown restrictions, the course material on the lessons pages was retained as is, but tutorials (as well as workshop lectures and computer lab sessions) took place in person rather than online.

The lab sessions, which take place in a faculty computer lab, provide a space for students to work through the content and tasks on the lessons pages in a supported environment where the teaching team is available to provide guidance and answer questions. Parts of the session are lecturer-led, and there is also time for students to engage in self-driven work and call on the teaching team for support where needed. The lab sessions thus act as a key blended component of the course where students work through online asynchronous content in a physical synchronous space and can benefit from the peer and teaching team support available.

> *...it was almost like the lab session converged with actual lessons page...*
>
> *(educational technologist)*
>
> ***
>
> *...if, for example, they need to find examples of texts which are multimodal, we will introduce them to what texts are in multimodal, then show them how to search for texts that are multimodal, show them how to save texts on their desktop or their drive that are multimodal. And then they would do that exercise with us around to be able to assist them.*
>
> *(lecturer 1)*

In the lab session that I observed, the online lessons page for that week is projected onto two big screens in the front of the lab, while students are each seated at their own computer following along on the same lessons page. The lecturer goes through the content on the page, even moving the mouse along with the words as she reads them. She pauses at different points and prompts students to either work through a task in pairs, to answer questions vocally, or to fill in their answers directly into the lessons page. Often students are only given two or three minutes for these tasks before the

lecturer swiftly moves on. The lecturer uses other pedagogic strategies in the lab session, such as modelling and scaffolding. Based on the content of the lessons page she gives them examples of how they could word an appropriate response to the task. When students answer the questions that she poses, she prompts them to clarify and provide examples. There are instances of weakened framing over hierarchical rules in the lab sessions, and the lecturer often jokes, teases, and is playful with her students.

While students have autonomy over the pace and sequence of their individual learning on the LMS, these synchronous, blended lab sessions display strengthened framing over pace and sequence as the lecturer tightly controls the order through which they navigate the tasks, the time spent on each task (sometimes only two or three minutes, as mentioned), and the points at which they move on to the next task.

Students valued the blended format in the lab sessions, especially having the teaching team present for guidance and signposting where needed. They saw the lab sessions fulfilling multiple functions – a space for interaction and engagement, a space for supported blended and independent work, and a space for consolidation.

> *...they are very thorough when helping us. I've never been a computer person either (laughs), so being left alone I would be like, what am I doing...*
>
> *(student 2)*
>
> ***
>
> *In the lab sessions, it's very interactive, so everyone is giving their own views on the topic we doing that we discuss in lecture...*
>
> *...it gives us more time to consolidate the work and understand everything. But even certain assignments that we have to finish in the lab session instead of just going home and doing it by ourselves, there's like help if we need to do something.*
>
> *(student 4)*

Students also appreciated the variety and mix of formats on the course in terms of having online course content, workshop lectures, lab sessions, and tutorials. This variety aligns with UDL principles in terms of supporting multiple means of engagement, representation, and action and expression.

Interestingly, the workshop lectures also display a great deal of blended teaching and learning. In one of the workshop lectures the lecturer opens up the lessons page on large screens projected at the front of the lecture hall. The lecturer plays a video from the lessons page (filmed by the course convenor) and pauses the video at different points to ask the class questions, to check that they are following and understanding the content, and to signpost and link the content to their upcoming assignment. The lecturer also goes through the assignment instructions on the lessons page, providing continuous references throughout the class to how the content can be applied to the assignment – thus demonstrating stronger framing and explicit evaluative criteria. Given the synchronous nature of this blended session, the lecturer displays more control over the pace and sequence of the class but she does encourage students to look at certain things in their own time and reminds them of the value of being able to refer back to content on the lessons page – e.g. in the case of being able to rewatch the videos that describe how to conduct different analyses. As in the lab session, the lecturer maintains a playful and jokey engagement with students, thus weakening framing over hierarchical rules somewhat.

In the course's contact spaces, such as the lab sessions and workshop lectures, pace and sequence of teaching and learning are largely controlled by the lecturer. Her teaching is responsive, however, in that students are required to ask and answer questions and give input, thus exerting some influence on pace and sequence. A code of F+ is thus most fitting for framing over pace and sequence (control dimension) in the contact space.

6.2 Digital inequalities

The digital inequalities highlighted during the COVID pandemic and lockdowns prompted the teaching team to adopt greater flexibility in the course and to find ways to accommodate marginalised students. This included providing students with downloadable versions or data-light alternatives of the course content, especially in cases where students did not have reliable access to the internet. Flexibility in terms of deadline and extensions was also adopted during this time. Rather than tightly timed tests, assessments were adapted to be open for 24 hours, for example, so that there was flexibility in when students could submit - especially helpful in the case of conflicting loadshedding schedules. In one case, a student was permitted to handwrite their assignments and take a picture on their cell phone to submit as they did not have access to a computer. While the educational technologist experienced this lockdown period as immensely challenging from a workload perspective, she also felt that it was helpful in highlighting the shifts that may be required on an institutional level to adapt to student inequalities.

> *I learnt a lot during the 2020 period. Things I had never ever gone through, which is why I say maybe it was a blessing to be working with extended degree students because I think [university] being so middle class, or upper middle class whatever, as it is, we tend to forget...*
>
> *And this is exactly that thing of social injustice where (laughs) because we forget and because we've normalised Western ways of operating at the university space. Certain people may be disadvantaged because maybe their lecturers just don't understand. The lecturers don't see the bigger picture (laughs). The lecturers won't shift.*
>
> *(educational technologist)*

There was diversity on this course in terms of students' school and home backgrounds, and their previous exposure to and experience with technology. Overall, interviewees from this course reported more advantaged backgrounds than students in the other case studies. Many had had exposure to technology at home and school, with access to laptops and stable internet connections, and some had taken the subject computer applications technology (CAT) at school or had completed schoolwork online. Students reported that this previous experience with technology eased the transition from school to university in terms of what was expected technology-wise in their courses.

This student described how, although she had wanted to study at university right after finishing school, family responsibilities necessitated working for several years. Interestingly, she felt that her experience with technology at work helped her with the transition to university. She still faces digital inequalities in terms of sharing Wi-Fi with several family members and not having family support in terms of technology use.

> *...I thought it would be [a difficult transition] because I was out of school for so long. I thought it would be a big change, but it wasn't, because I think I worked at a call centre before I started at [university] and that time we were working from home and stuff, so I had to get very... I was like into the technology and figuring out how things work, so online wasn't really new to me.*
>
> *...so, I share a room with my sister, cause we like seven kids right, at the moment in the house, so my space is always shared with other people, so ja, but I'm used to it (laughs). And also, the Wi-Fi is slow because everyone is on the Wi-Fi...*
>
> *...my parents don't know much about technology, so I'm basically on my own, but that's fine (laughs).*
>
> *(student 4)*

This student, on the other hand, enjoyed significant educational capital in terms of attending well-resourced, private, tech-oriented schools, as well as having a mother and aunt who attended the same university and could guide him on the LMS and student management system used at the university, thus easing this transition.

> *We did use laptops. We had like that classic chrome book cupboard that every school has.*
>
> *...every student had to have a laptop, and you wrote your notes on your laptop and stuff...*
>
> *(student 6)*

Understanding students' experiences and competence with technology was crucial as teaching staff considered how to support the development of digital literacies on the course.

6.3 Digital literacies

A key function of this course is to support the development of digital literacies among students – from basic digital skills to more complex digital literacies relevant to humanities disciplines. While the first semester social science course may have taken for granted some basic digital competency, this course provides very explicit guidance on even the most basic of digital skills. The digital literacies are embedded within the course content rather than being taught as detached and generic skills – an approach supported in the literature (Littlejohn, Beetham, & McGill, 2012; Njenga, 2018; Buckingham, 2015; Mayisela, Hodgkinson-Williams, & Brown, 2019). For example, step-by-step screencast tutorial videos are provided to show students how to navigate through the LMS. In Week 3, when students are required to submit their first assignment, the course convenor provides a screencast video showing how to submit an assignment on the LMS. A guided screencast video is also provided on how to navigate a digital archive as the students are required to select texts from an archive for an assessment. Other screencast videos in the course illuminate basic digital skills such as taking a screenshot, saving and uploading files, copying and pasting on Word, finding and saving images from Google, and so on. In each case, the explanations of these digital skills are embedded in and relevant to the course content and assessments that students are working on that week, rather than being taught as generic, decontextualised skills.

> *...formatting a document, or having references, or how to insert references, or insert footnotes, those are things they are not always aware of. So, I think that's very important for us to make that explicit. I think sometimes we just assume that they have that knowledge. And so, we are like write an essay and submit it, and most students might never have used Word or Excel or anything.*
>
> *(lecturer 1)*

In their efforts to address digital inequalities and foster the development of digital literacies the teaching team soon realised the importance of clear and detailed instructional text on the LMS. During the lockdowns, in the absence of more informal staff-to-student and student-to-student synchronous engagement opportunities that one would have in the physical space, the instructional text needed to compensate and provide much of this explicit guidance, even regarding the most

basic digital skills. Considering the extended degree programme as a whole, it may be helpful to have many of these basic digital skills embedded in the first semester course as well, given that many students would appreciate this explicit guidance up front.

The course also aimed to develop more complex digital literacies, especially those that are relevant to Humanities disciplines, such as digital archival work. This process requires careful scaffolding from more basic to more complex literacies, which often takes place in the lab sessions to allow for immediate support.

> *...their task in the lab was to go then look on these digital archives that we provided for them and then find things that speak to different genres or categories. So, it was a very scaffolded process to get them to that space, which I think works quite well. If we just told them, you know go find a collection of texts (laughs) and do the archive, they probably may have come up with...probably very creative things, but it would've been quite daunting. So, I think the fact that we scaffold it in that way, and then have them do a lot of those exercises in the labs where we are all together and can sort out any miscommunications worked really well.*
>
> *(lecturer 1)*

The course convenor describes some of the other important digital literacies they attempt to develop on the course, particularly information literacy and students' ability to discern credible information and sources. There is a particular focus on visual literacies and how to interpret images, symbols, framing, and so on. The course also aims to support students in navigating databases and search engines like Google Scholar.

> *Especially like in the society where media is a very, you know, prevalent and being able to distinguish between like fake news and everything, and to have you own interpretation on something, I think it's very helpful with everyday life.*
>
> *(student 4)*

In one of the major assessments, students are required to compile a collection of texts. Most students found their texts online and thus had to develop literacies around searching and navigating through digital content, understanding how various social media and other platforms work, and interrogating and selecting appropriate digital resources.

6.4 Pace and sequence

Framing over pace and sequence differ notably between the online and contact learning environments of the course. On the online course site, the teaching team make a concerted effort to strengthen framing over pace and sequence through the structuring of course content into weekly modules and detailed instructional text, including explicit guidance on suggested learning time allocations and completion dates. The course outline, for example, notes that students are at liberty to construct their preferred schedule, but a recommended schedule is provided, as below:

Activity	Mode	Time on task	Day
Lecture 1	Video recording/ narrated slides	15-20 mins	MONDAY
Reading	PDF	Reading time depends on text, see weekly descriptions	MONDAY
Online activities	Various	45-90 mins	TUESDAY
Tutorial	Group work	45 mins	WEDNESDAY
Lecture 2	Video recording/ narrated slides	15-20 mins	THURSDAY
End of module test	[redacted] tests & quizzes	30-60 mins	THURSDAY

(Online course site, Course outline)

Of course, students do have autonomy over how they work through much of the asynchronous online course content, but the suggestions regarding pace and sequence are useful, especially as increased autonomy and self-directed learning may be difficult for these first-year students. The course outline further emphasizes the importance of staying up to date with the weekly tasks.

While autonomy over pace and time management in the online space may be a challenge for first-year students, it is also a useful opportunity to develop one's self-regulation for further study in the Humanities.

...when you get to an Honours, Masters, and PhD level, you are going to have to move in a very self-paced fashion, so it's kind of like training you up already now (laughs) to get to the place where you know how to manage you time...

(educational technologist)

Students commented on the easy and smooth user experience on the course site. The teaching team's efforts to strengthen framing over sequence and pace through clear signposting, instructional text, and structuring of the lessons pages was appreciated by students, and useful for supporting self-regulation, and modelling time management, although students still had the final say in terms of how they paced and sequenced their work. Students valued the coherent and logical learning path presented on the lessons pages, and having everything in one place, rather than having to navigate through multiple parts of the site. Even the activities they needed to submit in the lab sessions were embedded in this learning path.

The layout is perfect. I don't have any problems with [the course]. It manages your time for you.

(student 2)

***

...like in the holidays and the past few days, I was re-watching the lectures and everything. That's why I like that it's recorded with online also cause if you miss something you can watch it back, and then remember and make notes again. So, I always try to rewatch…

(student 4)

***

...everything being recorded, everything always being online, it made for really great accessibility, but there wasn't the social aspect of it. What I like now is it seems like we've reached the equilibrium between the two, where it's like we're coming in everyday, we're working, but then lectures are still recorded, everything is still uploaded online.

(student 6)

When describing how the lockdowns necessitated autonomous, self-directed, and independent online learning for students, one of the lecturers positioned this as beneficial for students' development. During this time the lecturer would take on more of a facilitator role, rather than sage on the stage, thus further supporting students' self-sufficiency. She felt that given the more limited opportunities for contact with teaching staff during the lockdown periods, students would need to be

more prepared and strategic in terms of what questions they would keep for contact time. She also remarked on feedback from the course evaluations during this period where students were surprised by their ability to manage their time online and excel in assignments.

> *We were experiencing the same things in 2019, I think just like physical space tends to make people not to think they can push themselves like online learning does.*
>
> *(lecturer 2)*

In this case, the weaker framing in the online environment over aspects like pace and sequence engendered autonomy and self-sufficiency in student learning.

The lecturer contrasts this with the 2022 cohort who had regular daily classes in person. She feels that these students are more passive in their learning approach, arriving at the sessions expecting to receive the content rather than taking a more active, autonomous role in their learning. This differs from the lockdown period where students were expected to go through the online lessons pages by themselves asynchronously, whereas now the in-person sessions are often used as spaces for the class to go through the lessons pages synchronously, led by the lecturer, which could result in students falling into passive learning behaviours. She does, however, acknowledge the teaching team's role in impacting student independence via spoon-feeding and constant availability.

> *...we tend to spoon feed a bit… we tend to hold their hands a lot, that I think like we also cripple them in some way...*
>
> *It's very passive now. Showing up for them now is like ja, I did the most, I showed up, what more do you want…*
>
> *I have to be a mom! I have to chase people.*
>
> *(lecturer 2)*

The lecturer expresses her intention to foster independence amongst her students to prepare them for the official procedures faced at university where they will not be able to rely on handholding or appeal to their lecturer personally for exceptions.

> *If you miss an exam, you miss an exam, and you must go to the exam department to apply, not even to your course convenor. So, they need to get, you know, used to these things...*
>
> *(lecturer 2)*

In the online learning environment, a carefully structured and chunked course site featuring an explicitly sequenced learning path and detailed instructional text scaffolds and models pace and sequence of learning for students. Ultimately, students do have autonomy in how they pace and sequence their work in this space, and thus a code of F- for framing over pace and sequence (control dimension) is appropriate. This online course site is also used as a roadmap in the contact space as the lab sessions and workshop lectures are structured as a guided and synchronous exposition of the online lessons pages. A code of F++ for framing over pace and sequence (explicit/implicit dimension) is thus applicable across this blended course.

6.5 Selection and classification

The course allows students to exercise a great deal of choice, and they are encouraged to draw on their other disciplines and majors in selecting topics for tasks and assessments. In one of the major assignments, for example, students are required to choose a collection of texts and, in the subsequent and related assignment, students are required to analyse this collection of texts using an analysis method of their choosing (e.g. visual, discourse, narrative, etc.). The weakened framing over selection in both assignment tasks enables the students to select texts and analyses that are particularly relevant to their chosen majors/disciplines, rather than being generic or decontextualised.

Indeed, relevance of the course and assessments to one's majors is something encouraged throughout the course. There is evidence of weak classification between this course and other courses and disciplines within the Humanities faculty. The course convenor describes the course as 'degree programme specific' rather than discipline-specific and applicable to a wide range of Humanities disciplines. Students are encouraged to make connections with their own disciplines and majors. The teaching team sees the course as an important foundation in developing identities and voices relevant to various disciplinary communities, and helping students differentiate these for themselves. The course also helps students to develop literacies, both academic and digital, that are relevant across disciplines within the faculty, and will be beneficial across their entire academic careers.

> *This is a first-year course so they are kind of still in the beginnings of exploring all the voices they might encounter in the different disciplines, but I think a key thing that this course provides them with is the idea that you almost put on a different hat in every different discipline...*
>
> *...and it's only as you move through the academy that you start realising and developing those identities sort of sub-consciously and consciously as we progress.*
>
> *...it is a bouquet of tools and resources that I can actually use to support me in my other areas of study. So, I think that is something that I am seeing, and I often see it when students are responding to questions, they'll say, you know, in my sociology class or something. They are making those connections themselves which I think is really great.*

...at the end it gives them the tools for any discipline.

(lecturer 1)

***

We also did do naturalistic language, which would be things that you find in linguistics, right, looking at those type of things. We also do do symbols and connotation; those are things we find in film and media when they are teaching them about connotative and denotative meanings and semiotics. We do do representation – representation that you'll find in politics, media, and African studies. And our representation leans towards African studies where we look at representations of Africa and representations of Africans. We also do do discourse analysis, that you'll find across humanities in whatever department you are in. We also do do various types of research – I mean various types of methodologies, that you'll find across different types of departments. So, we really do try our best.

(lecturer 2)

In one of the workshop lectures, the lecturer makes the link for students between the analysis they are doing in their assignment, and their own disciplines or majors, and further encourages this weakened framing over selection. She gives examples of those in film and media who may look at still frames, those in gender studies using bar graphs and texts to analyse gender-based violence, and those in African studies who may interrogate how their accent and body language may differ between their hometowns and this university, where they may feel pressured to assimilate to whiteness.

As these students are in their first year of university and thus may not have yet developed a strong allegiance to any one discipline, this course also provides useful exposure to a wide range of disciplines that they may choose to pursue later on, e.g. in the case of changing their majors. It could also be argued that this course may fill an important social and cultural capital need, as many students are from home and schooling backgrounds where they may not have had the opportunity to discuss their academic and career paths with other people who have attended elite universities and who could advise on choice of discipline.

The teaching team expresses the view that certain disciplines are more or less well suited to the online learning environment. The course convenor argues, for example, that performing arts need to be carried out in person. One of the lecturers makes the point that some disciplines, like film and

media, benefit from online aspects as there are rich visual resources to draw from which are important in these visual-focussed disciplines.

This key aim of the course - to support students' development of valued academic literacies that will empower them to become disciplinary knowers within various Humanities disciplines at the university - requires weakened classification between this course and other Humanities disciplines. In this case students felt that the literacies related to academic writing and analysis were most applicable to their other courses, and easily made the connections between the content and literacies they were covering in this course and their applicability to the other courses they were doing – seeing this course as providing important foundational support. They noted improvements in their essay writing and analysis across their degree. Interestingly, they also found the literacies relevant to social science courses they were doing, like psychology and sociology.

> *...when you're analysing texts, you need to know the motive behind the construction of the text and everything. And also psychology, it helps with psychology because you can kind of like get into the mindset of that person that wrote that text, and like understand different context. And then with French, learning how to analyse like phrases and stuff in English it applies to other languages as well.*
>
> *I feel like [this course] helps to understand both of my majors...*
>
> *(student 4)*
>
> ***
>
> *...there's always something that connects over... there's the connection between [this course] and film, just in terms of analysis and stuff like that. And then I guess for philosophy and film the sort of essay writing skills and stuff goes over. It's that they're all informing each other, and so what I find is that when I'm doing a task, I'm not actually just referring to my one file, cause I have a file for each subject, I'm usually referring to multiple files even if I'm just focussing on one subject, because there's just so much intertextuality – I know that's not the right word, but it's like close as I can get – like between all the subjects. I like the interconnectedness...*
>
> *(student 6)*

Weakened classification is evident not only between this course and other disciplines, but also between this course and everyday life. Again, because there is weakened framing over selection and

students are given choices in their tasks and assessments, they can explore their own interests and passions in these tasks.

> *So I'm a big k-pop fan, and I did a collection of videos, ten different videos, where there's a lot of k-pop music videos that sing about love so I use like that, and like different forms of love where it comes in, and I just really enjoy doing that, and then because of that I also got a good mark so.*
>
> *(student 3)*
>
> ***
>
> *As a dancer I know what I'm looking for. I know that this image is... one of the emotions was like love. So I know what it's supposed to look like. I know what it's not supposed to look like, or what's not appropriate for the assignment. I would always just look at pictures I've seen in performances, or I have done, or I'm able to recognise, so it was very easy to pinpoint exactly what I was looking for.*
>
> *(student 2)*

Students could also identify how the content covered in the course could deepen their understanding of the everyday world around them. For this student, the course content has given him more insight into his personal relationships and much of the unspoken communication that occurs within these relationships.

> *...we were looking at body language and like gestural stuff, and also code switching and stuff. And these are all such universal things. All things I've definitely experienced, but it's so interesting to look at them from an analytical point of view. Like you never realise with your friends, all those little things, every look, every saying that only you two understand, there's something behind it, but you don't realise the impact of it.*
>
> *(student 6)*

South African examples are drawn on in the course content, providing another instance of weakened classification between the course and the everyday, and demonstrating the applicability of the concepts to understanding everyday life. In the lab session observed, for example, a behind the scenes YouTube video from a local soap opera was used to explore the concept of codeswitching – defined in the course content as 'when a speaker alternates between two or more languages, or language varieties, in the context of a single conversation or situation'. Codeswitching and multilingualism are used on the show to increase its reach for a diverse audience and support character development that reflects the South African context. Contextualising these concepts in

local and familiar examples is a way in which the teaching team aims to support student understanding and it is helpful to have relevant online resources to draw on in this regard.

As noted by the teaching team, the key aim of the course is to support students' epistemological access to humanities (and social science in many cases) disciplines by equipping them with both the relevant academic practices and the tools to develop valid disciplinary identities. This aim requires weakened classification between the course and other disciplines, and the teaching team intentionally weakens framing over selection in the course and promotes student choice to enable this. Classification between the course and other disciplines can thus be coded as C-. The same code can be applied to classification between the course and the everyday, not only in terms of personal interest and relevance to students, but also in that many of these concepts are best understood in relation to their applicability to the world around them. A code of C- - is not appropriate as the course content is not unspecialised.

As mentioned, to support this weakened classification the teaching team intentionally weakens framing over selection, particularly in tasks and assignments, giving students a great deal of choice, and enabling relevance to their majors and interests. A code of F- is thus appropriate for framing over selection. A code of F- - would not be suitable in this case as there are still confines within which students need to work when it comes to the assignments and, as will be discussed later in this chapter, the teaching team will sometimes tighten framing over selection to support the explication of evaluative criteria.

6.6 Translanguaging

A translanguaging pedagogy is an important feature of this course. Translanguaging is a pedagogic strategy that encourages students to draw on their entire linguistic repertoires in the learning environment for meaning making (Charamba, 2020; Wei, 2022; Hurst & Mona, 2017; Sobane et al., 2022). There is a recognition that a monolingual environment can be an obstacle to learning (Taylor, 2018), and students' ability to draw on diverse cultural and linguistic resources in their learning, and to freely code-switch, can support epistemological access (Charamba, 2020; Hurst & Mona, 2017; Sobane et al., 2022). There are often sociopolitical dimensions to translanguaging pedagogies as well, challenging the dominance of English in academic settings, and the marginalisation of indigenous and other languages (Wei, 2022), particularly in a South African context where a colonial legacy has devalued students' home languages and contributed to reproducing disadvantage in education (Hurst, 2015; Sobane et al., 2022; Ferreira & Mendelowitz, 2009) – issues highlighted in the Fallist movements (Hurst & Mona, 2017). Translanguaging can thus be drawn on as a decolonising stance, challenging power structures and validating and affirming students' rich linguistic and cultural resources (Wei, 2022; Hurst & Mona, 2017; Ferreira & Mendelowitz, 2009).

The teaching team acknowledges the importance of valuing these resources that students bring to the institution, rather than operating from a deficit discourse in relation to students.

> *...reaffirming to them that their mother tongue is important.*
>
> *...students don't only just bring themselves and language to a course, but they bring also their backgrounds.*
>
> *(lecturer 2)*
>
> ***
>
> *...different students suddenly engage, and different students have knowledge that they contribute and when they are writing essays, they will draw on cultural knowledge or knowledge from their linguistic backgrounds, and this challenges the cultural and linguistic monopoly we have in English.*
>
> *(convenor)*

A Week 1 lecture video explains that while the medium of instruction at the university is English, students are encouraged to use their full language repertoires in their interactions online and in their assessments, and to code switch freely. Much of the instructional text on the course is provided in both English and isiXhosa. The course convenor values the “ability to cater that you don’t necessarily have in the face-to-face" with reference to the ability to provide instructional text in multiple languages without the lecturer having to repeat themselves multiple times as they would in a face-to-face setting, and to reuse this instructional text from year to year.

While the online space provides some affordances regarding the translanguaging pedagogy, the course convenor also acknowledges the challenges of encouraging multilingualism in the online space, especially as she views the internet as a ‘monolingual space’. This view is reiterated by the other academic staff on the course regarding the importance of interpersonal engagement in contact spaces for fostering translanguaging and code switching, as they describe codeswitching taking place ‘more naturally’ in spaces like the in-person tutorials. Interestingly, the teaching team associate translanguaging with informality and weaker framing over hierarchical rules in contact spaces, whether in small group peer-to-peer conversation in tutorials, or in multilingual class discussions in lectures.

The primary language of teaching and learning on the course is English, but students are welcome to use other languages at any point. The lecturer also sometimes engages with students in other languages to support their understanding of a concept, to clarify misunderstandings, and also as a pedagogic tool to facilitate class discussion, collaboration, and playful engagement. In the observations of the in-person sessions there were a few instances of translanguaging in the classroom, mainly in the cases of individual students approaching the lecturer with a question in isiXhosa which she responds to in the same. The lecturer describes how, when introducing a new concept or example, she sometimes asks students to provide a translation in their own language. This often results in lively and humorous classroom discussions which she compares to a game of

'broken telephone'. Again, this brings in an informality and playfulness to the classes and weakens framing over hierarchical rules, while simultaneously fostering learning and collaboration. This weakened framing in the classroom allows students to be empowered as experts in their learning and direct classroom conversation to some extent, especially if they are the only person or one of a small group that can speak a certain language. Indeed, the lecturer describes how much she has learnt about language through engagements with her students.

This lecturer describes the challenges students face in assimilating to an institutional culture at the university which is dominated by English, and where race and schooling background often impact students' sense of belonging at the institution. She implies that spaces, like this course, which allow students to openly engage around the topics of language, identity, and culture at the institution may go some way to alleviating students' sense of alienation and inadequacy. The weakened framing over hierarchical rules and the informality and translanguaging fostered in the contact spaces of the course support these goals.

The lecturer speaks openly with students about how language is entangled in culture and identity, especially, as she claims, at an English medium university like this one where the history of imperialism and colonialism is evident in the authority given to English. In one of the workshop lectures where students are required to nominate and vote for a class representative, the lecturer implores students not to be discouraged by feelings of inferiority related to their language or accent, reminding them that anyone can be a class representative, and that this is a multilingual class. The ambit of the lecturer's role often extends beyond the academic, such as in this workshop lecture, where she uses the class representative voting process to advise students on building up their CVs, which may be useful in applying for further student leadership posts, thus filling in many social and cultural capital gaps for these students.

Interestingly, in the lab sessions, the lecturer raises some provocative points on language, culture, and identity that students seem to challenge given the audible grumbles of disagreement. As an

example, she claims that many of the students put on a different accent and stick to English in university residence, but if their mother calls them, they go to the bushes to speak isiZulu in the fear that people will judge them. The lecturer also claims that in multilingual households one's mother tongue is often only used in the context of discipline and thus these languages become associated with aggression. She playfully implies to students that they should raise these issues with their mothers, to which she is met by sounds of disbelief. Again, the informality she has been able to foster in class allows for these kinds of provocative discussions and for students to express their disagreement.

In practice, the use of languages other than English in teaching and learning is fairly bounded, however. The instructional text online and the clarification points in class are mostly limited to English and isiXhosa as this is the other language that the lecturer speaks fluently. Interestingly, most of the students I interviewed said they did not make use of the opportunity to draw on languages other than English in the course, mainly because English is their first language, and they are not sufficiently fluent in other languages. Students did not report feeling excluded if they could not speak other languages, however. They felt that core content was still covered in English and isiXhosa was mainly used for one-on-one conversations between the lecturer and individual students, or in more informal communication that was not crucial for the content. If there was something relevant to the content, they felt that this was generally translated into English for the benefit of the whole class.

While this student is fluent in both English and Tswana, she feels that the translanguaging goals of the course are constrained by the languages spoken by the teaching team.

> *I feel like we all moved straight into Xhosa and English, cause our lecturer's Xhosa, so. That's the only language that she uses, so. We still kind of... I don't feel it's a multi-lingual course, ja.*
>
> *I speak Tswana.*
>
> *(Moagi, student)*

Indeed, the teaching team may underestimate the challenges of creating a truly multilingual course, particularly in a country with twelve official languages, when they do not have the staff and resources to cater to all languages.

> *I can mark isiXhosa essays if it is switching into and out of, I don't know if I could mark a whole essay in isiXhosa, but I do understand a little bit, I can certainly follow if someone switches into isiXhosa for a few sentences, and you always have Google Translate. So, we've never had a case where we can't mark an essay that is submitted in a different language. We've never had to go outside the teaching team, but of course you can. If you don't have a tutor who speaks sisSwati you'd need to go outside the teaching team to do that.*
>
> *(convenor)*

While translanguaging in assessments, for example, is encouraged, students may not perceive the course as truly multilingual from the outset, as per the reflection from the Tswana-speaking student above, and thus may be deterred from submitting assessments in other languages. This may reflect a relative marginalisation of some languages in the course. IsiXhosa has historically been a marginalised language in South Africa, particularly in the English-dominated space of this institution, and its inclusion in the course speaks to transformative aims, however it seems that other South African languages are still left marginalised to some degree. As the convenor noted in an interview, it was mainly the Nguni language speakers (which includes isiXhosa) who expressed their appreciation of the translanguaging on the course in the course evaluations. The convenor mentioned her own research work in disrupting the institutional dominance of English.

This kind of research has informed a transformational agenda on a national scale to revise university language policies (DHET, 2020; 2023). This institution is currently revising their language policy to reflect translanguaging aims and for full recognition and inclusion of a diversity of languages at the institution. These are, however, limited to the dominant languages of the province, including isiXhosa. Many students come to study at this university from other provinces, and experience multi-faceted and intersecting marginalisation based on their rural backgrounds, the languages they speak, the schools they attended, and so on. It is worth considering whether this focus on a narrow range of languages on the course may further marginalise them, even though the official messaging on the

course is that all of students' linguistic and cultural resources are equally valued. So, while the institutional policy level and the convenor's personal aims may reflect an interest in translanguaging at the institution, in practice it is challenging to truly integrate twelve official South African languages equitably in teaching and learning. There also may not be sufficient acknowledgement of the dominance of English in broader academic circles, publishing, international research collaborations, etc. Is this approach too idealistic and not sufficiently preparing students for the realities of academia, particularly on a national or international scale?

Interestingly the social science convenor expresses a contrasting position when asked about translanguaging at the university. She expressed the view that while translanguaging could provide a way to value students' linguistic resources in teaching and learning engagements, she felt that the use of English in assessments was necessary to adequately prepare students for the realities of institutional academic expectations.

> *...as much as you can do tasks and classroom activities drawing on those other linguistic resources, when it comes to the formal assessment, we need to be aware that English is still the privileged language and therefore how do we now get students to repackage what they are bringing into the dominant mode?*
>
> *(convenor 2, social science)*

While translanguaging may not necessarily fill the pedagogical aims intended on the course from a student perspective, this is not to say that its inclusion is not valuable. Even if they could not contribute in other languages, students still had a generally positive attitude to translanguaging on the course and valued it as something unique, interesting, and inclusive. This is in line with the findings of Charamba (2020) who points to the value of translanguaging beyond academic gains, including fostering a sense of belonging, encouraging peer-to-peer engagement, affirming students' identities and linguistic resources, disrupting power imbalances, and working towards social justice. This student reflects on its inclusivity and bemoans his loss of fluency in Sotho due to the dominance of English in his schooling environment.

No, I love it. I never want people to feel like they have to accommodate for me. Look, I know I'm an outlier in terms of only being able to speak English, and I've been like harassed about it endlessly, definitely...

...But I don't take it personally. I'm so glad that there is, I guess, a platform for people to be able to speak their home language. I wish I'd had that when I was growing up, so I wouldn't have lost being able to speak Sotho. So, it's good to see that in the world. It's something I would've wished I had when I was younger. So, I'm happy. How could I be mad to see that? That's such a great thing to see.

(student 6)

This student's comment is indicative of a difficult tension faced by many young black South Africans who have grown up in predominantly white schooling environments, finding themselves in 'an in-between space where they are either "too black to be white" or "too white to be black"' as described in Spencer's (2009: 66) work on Kopano Matlwa's 'Coconut'.

One of the lecturers on the course also speaks to the use of translanguaging for recognition and inclusivity, although she does acknowledge that her teaching is primarily confined to English with the propensity to code switch only when an individual is struggling to understand something.

...luckily also we are allowed to have multilingual discussions. So even in the lecture, for example, a person can answer in whatever language they want, which you don't get much in other courses. And one thing about when somebody speaks to you in your language, I don't know, it warms your heart. They enjoy it so much. But yes, when I teach I make sure to speak universally in English, but when I explain sometimes and I see someone has difficulty in understanding something, then I change.

(lecturer 2)

The use of language in the classroom is closely tied to regulative discourse and the social relationships between staff and students. The next section delves into hierarchical rules and boundaries on the course.

6.7 Hierarchical rules and boundaries

Much of the value of the four-year programme lies in the additional support, both academic and personal, that students enjoy. Students found that, in general, the teaching team was very supportive and responsive, and this was often fostered through weakly framed learning spaces in respect to hierarchical rules. This experience contrasts with students' experiences on their other courses which they generally felt were purely related to academics rather than incorporating any social support.

As noted in the previous section, translanguaging was often associated with informality and weakened framing over hierarchical rules in the contact space, which was difficult to mirror online. The teaching team did, however, also experience challenges with hierarchical rules and boundaries in the online space, particularly during the COVID lockdowns. While the lockdowns necessitated more flexibility and availability in the online space, such as via WhatsApp groups, this did lead to blurred boundaries in some cases. The educational technologist found it necessary to create a rules of engagement document for WhatsApp to outline the appropriate level of formality and behaviour in the online space.

> *We had tutors who were getting hit on in WhatsApp groups...*
>
> *...then it's things like oh I have a student who insists on SMSing me at 2am.*
>
> *...and if you only have access to the internet at 2am, that's perfectly fine, send an email. But in sending that email you also need to understand you are not going to get a response of office hours. You will only get a response between working hours. So, we had to become very strict*
>
> *...I created a rules of engagement for WhatsApp interaction.*
>
> *(educational technologist)*

Understandably, it was a challenge to set up appropriate framing over hierarchical rules in the online space, especially over channels like WhatsApp that are generally used as informal online spaces but, in the case of the lockdowns, had become more formally integrated into teaching, learning, and communication at the university (Pallitt & Kramm, 2022). Students were having to navigate these new boundaries within a space that they perhaps perceived as inherently more casual and informal and thus attempts by the educational technologist to strengthen framing over hierarchical rules in

these spaces (e.g. via imposing rules of engagement), was important in establishing these boundaries.

One of the lecturers commented on the importance of signposting and guiding students to understand the level of expected formality and behaviour in different online spaces on the course.

> *...certain tools on [LMS] are informal, so for example the chat is a semi-formal space and the blog space is a more informal, or on the forums here you are required to use references, helps students because then they sort of given signposts as to what is required in this space so that's probably a better way to get them to be more comfortable in that. But I think there's definitely a difference in how students respond in those different spaces.*
>
> *(lecturer 1)*

The level of formality in each setting dictates the nature of contributions in that setting to some extent. The course outline set out some of these expectations initially, i.e. positioning the chat room as a semi-formal space to ask questions and seek clarity, while the discussion forums were positioned more formally as a space to submit work and receive marks.

Interestingly, in the 2022 course, the asynchronous discussion opportunities presented by the forums were phased out. On the 2022 course site a general chat room was retained, although rarely used, and the forums were removed completely. One of the lecturers is of the opinion that it would have been valuable to retain the forums as an asynchronous form of communication to support blended learning and complement the in-person, synchronous aspects of the course. She feels that the forums could act as a useful Q&A that would be visible and transparent to all students, and that they could refer to at any time. It may also overcome communication anxieties for students reluctant to ask questions in class and can even be used to inform teaching based on ongoing student feedback. She feels that for a successful blended approach to teaching and learning, both the synchronous features of the in-person space and the asynchronous features of the online space should be used to their advantage. Interestingly, the social science case study also omitted the asynchronous discussion opportunities presented online which the data suggests could be valuable.

The translanguaging pedagogy on the course was associated with informality and a weakened framing over hierarchical rules. Indeed, the teaching team made various efforts to weaken this framing in the contact space by building a playful and humorous rapport with students and moving core content online so that contact sessions could be opened up for class discussion and engagement. Framing over hierarchical rules (control dimension) in the contact space can thus be coded as F+. In the online space, on the other hand, the teaching team had a different challenge in that during lockdowns they were required to operate in spaces, like WhatsApp, that were perceived as inherently non-hierarchical and informal. A F- code for framing over hierarchical rules (control dimension) in the online space thus reflects the teaching team's efforts to impose some hierarchical structure and formality on these online spaces. In summary, the teaching team felt the need to minimise many of the hierarchical aspects in the learning environments to meet their pedagogic aims, but a complete absence of hierarchy was not desirable, thus a code of F- for framing over hierarchical rules (explicit/implicit dimension).

6.8 Evaluative criteria

This course aims to provide insight and guidance into the academic literacies valued within the humanities faculty and broader institution. One of the ways in which this aim is supported is via explicit evaluative criteria in the course. For the assessment tasks, students are provided with clear instructions, templates which they can use to complete their tasks, rubrics and mark allocations detailing how they will be assessed, FAQs, as well as examples of answers. Below are two examples from the course. Note how even the more basic academic literacies are addressed – e.g. advising students to provide more detail for questions that are worth more points.

Question to guide analysis	**Type your response in this column**
If there is language in the text, what language is it? (Xhosa, Afrikaans, English etc.) Provide as much description about the language as possible – is it formal, colloquial, single words, long academic paragraphs, etc. Provide examples from the text. 2 points	
What text typeface/ font is used? What is the shape, style and size of the typeface? Is it decorative or for extended reading? How is it presented? 2 points	
What other visual elements are there in the text? Are there shapes, colours, photographs, drawings or paintings, charts and graphs, animations, visual transitions, video or sound? Provide as much description as possible about these elements and their use in the text. (provide the most detail for this question because it is worth the most points) 4 points	
How is the written and visual text organized? In	

(Online course site)

Tutorial Task week 4:

Plan your collection! Answer the following questions to plan your collection of texts for Assignment 2 and get feedback from your tutor:

1. What texts are you planning to collect for Assignment 2?
2. **What is the medium, genre and organizing principle or theme of your collection of texts?**

   Here is an EXAMPLE of how you might answer the question:

   They are IMAGES (medium/mode) which are MEMES (genre) about LOCKDOWN IN SOUTH AFRICA (theme/organizing principle)

3. How many examples will you collect? (around 10 is probably fine, but explain if you will be collecting more or less than this)
4. What file format will you save them in?
5. What do you think will be interesting to analyse in your collection of texts?

Upload your answer to number 2 in the forums this week after you've discussed it in your tutor chat room!

(Online course site)

In Week 6, as another example, the course convenor provides a how-to video on visual analysis. Using the example of a promotional image from a Netflix show, she takes students step-by-step through a visual analysis, unpacking elements like symbols, background, foreground, colour, compositional meanings, gaze, and so on. Following this video, students are required to complete a tutorial task where they conduct a visual analysis on an image from another Netflix show. It is helpful that the visual analysis is modelled for students in the preceding video by the course convenor, and that they are working with a similar type of task and image. In the workshop lecture, the lecturer makes an explicit link for students in how the steps on analysis covered in the videos can link to their upcoming assignment.

During my fieldwork in 2022, some students found the collection of texts assignment confusing and ended up performing poorly in this assignment. The teaching team took a responsive and adaptive approach to this issue by changing the subsequent analysis of texts assignment guidelines – previously students were instructed to analyse the collection of texts they had compiled in the previous assessment whereas the teaching team changed these instructions and provided all students with several pre-approved collections to choose from for the analysis task. In this case,

framing over selection was tightened somewhat to improve the clarity and explicitness of evaluative criteria. In this way students would also not be at an automatic disadvantage in the analysis assessment if they had performed poorly in the prior assessment by working with an inadequate collection of texts.

The research reflects the teaching team's efforts to support epistemological access via explicit evaluative criteria, and a code of F++ for framing over evaluative criteria (explicit/implicit dimension) is thus appropriate. For the control dimension, while students have some autonomy over the selection of topics for their assessments, they do not have input in how they are assessed, and thus a code of F++ is also appropriate in this regard.

6.9 Tutors

In a similar manner to the other case studies, this course focusses not only on the academic development of the students, but also the tutors – noting their role as the future generation of the academy with the potential to disrupt many of the current institutional norms. The tutors are given autonomy in how they run their tutorials each week, and are encouraged to draw on their expert knowledge, although they are expected to cover some core, specified material.

> *…they also have free reign also where... cause remember these are people also who are like experts so to speak, especially if you're doing your Masters and PhD. There must be like some theory or something that you're an expert in, that you must also have your input in, when it comes to that specific topic.*
>
> *(lecturer 2)*

Tutors were generally supportive, available, and encouraging, and took on an important pastoral care role on the course.

> *Now I have to leave that up to you of course, but if you need any assistance do let me know ;)*
>
> *I'm ALWAYS AVAILABLE!*
>
> ***
>
> *I conclusion feel free to consult me if you need help with anything both admin and academic endeavors. I am you first point of call for anything. I hope we will work with each other well this semester and you guys will produce good results*

In Week 2, many of the tutors ask their tutees how the course is going so far. When one of the students comments that they are not really enjoying the course, nor finding it relevant, but rather only completing it because it is a requirement, the tutor shares how she did the course in her first year and found value in it.

> *Just a word of advise: you are only in week 2, please give the course a chance. These type of courses were made to help students in the Humanities in many ways such as analyzing texts, writing skills and expression. I can promise you, this course will teach you a lot of things you didn't know any help you in the long run. I am always here for support and guidance so if you need anything, please reach out. I also want everyone to pass and looking at the outline and tasks/assignments, everyone will pass so enjoy it :) as you get to higher courses, you will miss this one, I'm sure of it* 😊

Many tutors also make themselves available outside class time via WhatsApp, and some offer personalised support, e.g. comments on essay drafts, consultations, etc. In addition to support and encouragement, tutors also try to push their students, prompting them to think more critically or reflect more on certain topics.

In Week 7 when covering code-switching, some tutors share their own experiences with code-switching.

> *Would any of you say you code switch? If so, how? Personally, I do but it depends where I am. I find that when I am at home in [township], I speak only speak isiXhosa but when I am with my Xhosa speaking friends at [university], we code switch often. Do any of you have similar experiences?*

Bringing in these personal anecdotes seems to be an effective pedagogical strategy as several students then share quite personal examples of code-switching, such as experiences around being people of colour entering formal institutional environments where English and Western ways of being are dominant, and thus feeling like one must code-switch for fear of being undermined or misunderstood otherwise. Interestingly, an example of code-switching in practice is seen in one of the chat room tutorials as a student responds to the tutor saying they are from the same township, and then the tutor responds:

> *Haibo [name of student] tshomi haha, we have something in common. It's very interesting.*

[‘haibo’ being an expression of surprise in isiXhosa, and ‘tshomi’ meaning friend in the same language]

The lecturer did find the online space valuable in being able to monitor what was going on in the tutorials, and having oversight of all the tutorials, something which has not been possible with the shift to in-person tutorials. It is useful in supporting responsive interventions in teaching and learning, e.g. being able to pick up when a concept has been difficult to understand for many students. The lecturer offers to attend tutorials when she observes that tutors are struggling. This online surveillance is also beneficial for the lecturer in addressing student complaints and checking engagement online. There are instances, for example, where students will complain about failing the

course but once she checks the LMS insights tool she will see that the student went entire weeks without logging on.

Now that the tutorials take place in person, rather than online, the lecturer is reliant on student feedback to monitor tutor performance and have oversight. In one of the workshop lectures she asks students from a particular tutorial to come and see her after the class and asks them if the tutor was on time and what happened in the tutorial. Interestingly, while the lecturer sees the value of online surveillance for student and tutor management, she does not enjoy being surveilled in her own online teaching. This reflects the concerns of many academics during the COVID period in opening up their teaching to surveillance for the first time (Trotter et al., 2022).

> *...you can wing a lecture sometimes, not because you haven't prepared, but it's a topic that you know by heart, that you can stand in front of people without a powerpoint presentation because the lecture recording is there in any case, so you don't have to like do a narrated slide, do a slide. But with online, plus also because you know what I mean, there's someone also watching you, an examiner, the course convenor is also watching you. So online it's too much.*
>
> *(lecturer 2)*

The lecturer notes a valuable aspect of tutor development enabled by the online learning environment. With the shift to blended learning, tutors in the faculty are now given the opportunity to assist in the design and creation of lessons pages on the LMS, allowing them valuable work experience and income, as well as reducing the workload for more senior academic staff. This is especially useful in cases where students have specialised skills that they can contribute to the online course site, e.g. graphic design, media creation, etc. The lecturer valued their contributions and also views the development of asynchronous online course content (which is reviewed and approved) as a lower stakes opportunity for tutors' professional development than, for example, asking them to fill in as a lecturer for one of the classes. The lecturer expressed her desire to expand on the instructional text translations on the online course site to other South African languages, and feels that tutors, or even students on the course, would be valuable contributors here, providing

opportunities not only for work experience and income, but for active participation and co-creation on the course, thus weakening framing.

The online learning environment weakens framing and flattens the hierarchy in these academic contexts while enabling collaboration in teaching, in contrast to the more traditional model in which an individual lecturer transmits content to a class of students. The online learning environment also allows for a variety of media to be used in the presentation of content, thus enabling multiple actors to contribute based on their capabilities.

6.10 Rethinking and redesigning

The initial shift to emergency remote teaching and learning during COVID lockdowns, followed by more purposeful online learning design, and now the subsequent move to a blended approach where one can pick and choose elements that work well in either format has provided opportunities for reconsidering and redesigning pedagogic practices that would not have arisen otherwise. The very act of redesigning content, pedagogy, and assessment for an online learning environment forces one to interrogate previously unspoken assumptions and approaches within a course, and the course convenor reflected on this valuable opportunity. In the below extract, she comments on the value of a flipped classroom model, particularly in terms of inclusion and accessibility.

> *...it's better to have the lectures online and the other stuff face-to-face. Because the lectures you can watch and then re-watch, and students, especially second language students, find it easier if it's a video and they can go back and listen to it again, whereas the in-person stuff, like tutorials particularly are useful in-person.*
>
> *...and why do they have to be 45 minutes when you can say it in 15. You get these small lectures, or you could even have two or three of them on a weekly basis on a particular topic. They are much more bite-sized and cover the information.*
>
> *(convenor)*

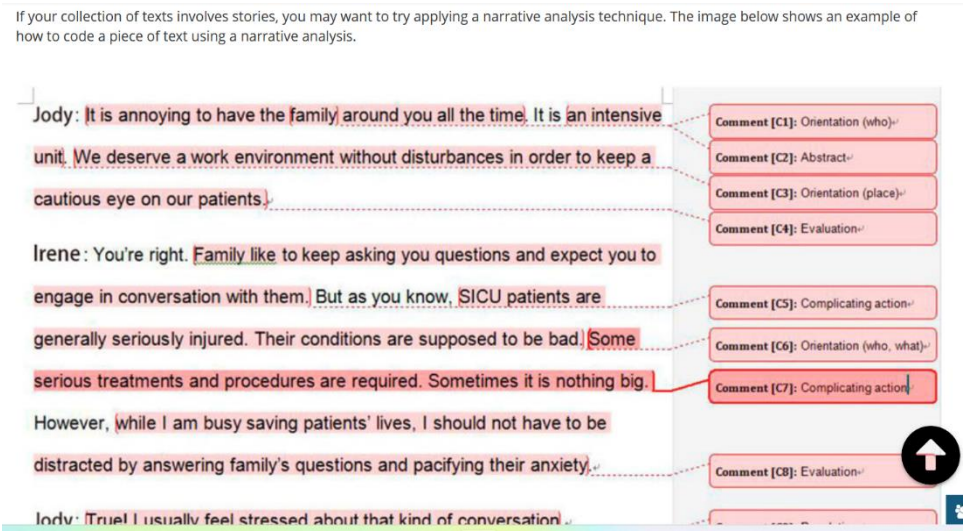
In addition to translanguaging and code switching, one of the lecturers feels that there are other forms of expression and engagement that are better suited to the contact rather than the online space. She describes the in-person tutorials as an important 'pedagogical tool' and feels that these more informal, developmental discussions where students are grappling with both new and unfamiliar 'academic jargon', as well as sensitive topics like race, gender, or class, are better suited to ephemeral, in-person discussions rather than the permanence of online posts that may be intimidating for students, and even staff. She feels that posting online engenders self-consciousness when it comes to tone and how one's message will be perceived, especially when discussing these sensitive topics. This points to the vulnerability in the online space and that the permanence of this digital record may make individuals more reluctant or careful in how they express themselves. Many students share these views regarding interpersonal engagement and comment on the value of in-person discussions and the difficulty in discerning tone online.

The course models academic reading and comprehension, demonstrating how it differs from leisurely or other types of reading, often via guided readings. The online space offers an affordance in this regard with annotation tools, like hypothes.is, and annotations on Word.

> *I think specifically for guided reading it is important. And specifically in a course where you do a lot of reading, hypothes.is is extremely important. Because if there is going to be a long trawl of text, if the reading is say 50 pages... you don't want a situation where a student is completely stuck, it is a lot of pages, so you really just want to point them to what is extremely critical, why it's important, etc. This is how you analyse, this is how you break down meaning...*
>
> *(educational technologist)*

The educational technologist describes how the online space provides affordances for this type of work that may be challenging to demonstrate in a contact setting. In one case they used annotation to demonstrate in-text referencing and reference lists on a course document. The tool provided an opportunity for guided reading that students could work through at their own pace, and then bring questions and reflections into the synchronous space for discussion.

The below is an example where annotations are used to demonstrate how to code a text using narrative analysis.



(Online course site, Week 8)

As mentioned by Czerniewicz et al. (2020), emergency remote teaching and learning provided an opportunity to rethink established assessment practices within higher education, particularly with a

view to incorporating more flexibility in assessment methods, such as shifting from closed to open book exams and the changes that necessitated in terms of how students are assessed. As mentioned above, this required flexibility in pace and timing, with tests being open for an entire day, for example, rather than a one-hour period. The focus thus shifts from what students can memorise in a time pressured, invigilated setting.

6.11 Table 14: Coding summary: Humanities case study

		Framing							**Classification**	
		Pace and sequence		**Hierarchical rules**		**Evaluative criteria**		**Selection**	**Classification: course and other disciplines**	**Classification: course content and everyday knowledge/examples**
		Control	explicit / implicit	Control	explicit/ implicit	Control	explicit / implicit	Control		
Codes from the data	**Online**	F-	F++	F-	F-	F++	F++	F-	C-	C-
	Contact	F+	F++	F+	F-			F-		

6.12 Conclusions

The humanities case study course aims to support students in the development of academic and digital literacies relevant to a wide range of humanities (and social science) disciplines at the university, to equip them with the tools to construct valid disciplinary identities, and to provide exposure and guidance on paths they may pursue at this early stage in their academic journeys, all within a socially supportive environment. The purely online provision for this course in 2020 and 2021 had its challenges, particularly in terms of digital and other inequalities faced by students, but also provided an opportunity for an interrogation of the course and a reconceptualisation and redesign. In 2022, when the field work for this study was conducted, the teaching team had retained online aspects of the course which they felt were beneficial to learning and epistemological access, and optimised the contact time they had available to hone in on the aspects they had found difficult to foster online, such as the translanguaging pedagogy of the course, and the opportunities for discussion, collaboration, and engagement. Interestingly, rather than acting as a repository for course materials, the carefully designed online course site acted as a roadmap for much of the contact teaching. Both online and contact aspects were carefully integrated into an intentional blended course design.

The flexibility in pace and sequence enabled in the online space, for example, was valuable for students' epistemological access given the various educational, digital, and other inequalities faced by them, as well as for various family and work commitments that necessitated greater flexibility for some. The concomitant self-regulation and independence required from students to navigate this weaker framing was scaffolded in the online space via structured course design and detailed instructional text, and modelled by the lecturer in the contact space, thus displaying more lecturer control here.

The course provided guidance on the most basic digital skills to complex, disciplinary digital literacies, all embedded and supported within the existing course content and illuminated via

detailed instructional text. In general, student interviewees reported more advantaged backgrounds, particularly in terms of technology, and this prior exposure and guidance equipped them to meet the digital literacy demands of the course.

Given the very purpose of the course to support students in humanities disciplines, weakened classification between the course and other disciplines was imperative, and was well supported by weakened framing over selection and thus greater student choice in tasks and assignments. This also allowed for greater relevance of the course to the everyday and to students' personal interests.

The contact space was better suited to the natural emergence of translanguaging, a key feature of the pedagogy, which was difficult to mirror online. Translanguaging was also used intentionally to weaken framing over hierarchical rules, allow for more open conversations, creating social bonds and validating students' backgrounds and identities. As translanguaging can create a more integrated, less boundaried use of students' linguistic repertoires, bringing together students' home and university identities (Charamba, 2020), translanguaging is another instance of weakened classification to support students' epistemological access. Although students felt that the translingual intentions of the course were never truly realised, the approach was still valued for its other functions.

As in the other case studies in this research, the teaching team noted the importance of weakening framing over hierarchical rules to support students' epistemological access. This was necessary to build rapport and create a supportive environment in which students were comfortable enough to be vulnerable in their learning, bring their backgrounds, identities, and languages into the classroom, as well as filling the important social support role that is not addressed on their other courses. It was a tricky balancing act to reach a suitable level of formality across the online and contact spaces, with the contact space requiring more concerted efforts to reduce hierarchical elements, while the online space required the imposition of boundaries and structure to avoid an absence of hierarchy, especially when navigating spaces perceived as inherently casual and informal, like WhatsApp.

There were many instances in the course of strong framing over evaluative criteria as the teaching team recognised the importance of explicit evaluative criteria in supporting epistemological access. In one instance, framing over selection had to be tightened and student choice constrained somewhat in order to better explicate evaluative criteria.

In a similar manner to the other case studies, the teaching team on this course recognised the important role of tutors as the future of the academy and gave them a good deal of support as well as autonomy in their work. The online space also allowed for interesting professional development opportunities for tutors to co-design and co-create online learning materials.

The data indicates the irrefutable value of the humanities faculty extended degree programme and the academic and social support it provides. This case study provides an interesting illustration of the opportunities for reflection and redesign presented by the COVID lockdowns. While challenging, this period provided valuable insight for the teaching team into aspects of their pedagogy that were well supported online, and aspects that they felt were best suited to the contact learning environment. These learnings informed the prudent and intentional blended course design evidenced in this study.

Chapter 7: Commerce Case Study

The commerce faculty's educational development unit (EDU) offers both extended and augmented bachelor of commerce and bachelor of business science degree programmes. Both programmes offer additional social and academic support in comparison to the mainstream programmes, including augmented first-year courses in mathematics, economics, accounting, statistics, and information systems that provide foundational support, additional time-on-task, and a sharper focus on academic literacies in these disciplines. The main difference between the programmes is that the augmented programme is completed in the same period as the mainstream, whereas the extended programme offers students an additional year in which to complete their studies.

This commerce case study course, which is a requirement for commerce EDU students, is a full year course aimed at supporting first year students with their transition to university, both academically and personally. Around 300 students were registered for the course in 2022. The course has two main foci. The first semester of the course is titled Self-development: Personal Management for the Higher Education Context and covers mental health, time and stress management, study and exam tips, among other topics. The second semester part of the course is titled Careers Discovery. The content has been developed in collaboration with the university's careers service and focusses on career guidance for students, and insight into commerce-related careers and the trends in the world of work.

The online content of the course is housed in two course sites (first and second semester) on the LMS. Students meet in small group tutorials in person, led by a facilitator, once a week in the first semester, and every second week in the second semester. Students are also assigned a mentor – another undergraduate student in the Commerce faculty (in second year or above) who offers academic and personal support, with whom they meet at least once a week.

Students are not formally assessed and do not receive a grade, but 100% tutorial attendance and completion of several online tasks, including quizzes and reflective writing tasks, are required to pass the courses.

This case study differs from the others in this research in that the course focusses primarily on psycho-social support, as well as general academic study skills and career guidance. Discipline-specific academic literacies are then addressed in the augmented courses mentioned above.

During the field work, interviews were conducted with the EDU head of department, the course convenor, and the main facilitator on the course, as well as five students. Digital observations of the online course sites were also conducted.

7.1 Hierarchical rules: Social support, family positioning, community

Both staff and students recognise the unique and difficult challenges that come with the transition from high school to the first year of university – whether these are academic, personal, and/or technological. This course plays a key role in supporting students through that transition.

> *Going from Matric to uni... that's just... there's something missing somewhere in between. So, this course... it pretty much fills that gap...*
>
> *(facilitator)*

Pastoral care is a significant part of the course and is used to support students through this difficult transition, especially as the teaching team recognise the potential impact of mental health struggles on academic performance. Students are encouraged throughout the course to seek out support from the teaching team, which is described as a "family", and many staff see themselves as taking on an almost parental role. There are constant reminders on the LMS of the course and course facilitator's role in providing a connection and crucial contact point to the wider university community, including referrals to student wellness resources, and students are encouraged to draw on this support.

> *Being part of the Self-development group diminishes isolation, helps you to become integrated into the Faculty of Commerce and the wider university community.*
>
> *Your self-development facilitator provides a personal and sympathetic contact in the university, who can help with the possible difficulties…*
>
> *(Online course site)*

Much of the online content in the first semester is focussed on mental health, self-care, balance, and well-being, including physical, mental, and emotional well-being, and stress management. These themes are also integrated into the in-person class discussions throughout the year. Evidently, students found this content valuable and found that it cleared up many misconceptions around mental health. Students had not covered the topic of mental health in much depth in high school. They also felt that the need for this type of guidance only arose in their first year of university given the psychological impact of this difficult transition.

...in the first semester, when we were taught about these, it was more and of like something that I realised that I really needed because I wasn't managing my time well, mentally I wasn't doing ok, so that is when like I really started listening when I was being taught these things.

(student 3)

While the teaching team on the course recognised the important role of the online learning platform in presenting the core content and important course information, as well as providing a space for students to work through content at their own pace, they also felt that much of the social support at the heart of this programme needed to be provided in person. They felt that the ideal environment to enable this social support is a small group classroom setting featuring discussion and peer-to-peer as well as student-to-facilitator engagement. The course aims to create a sense of community, trust, and vulnerability on the programme.

…for us to maintain at least a small class semblance, and start creating these communities of practice where they talk about their experiences...

(Xavier, convenor)

***

...we're very big on community, and building this cohort, this collective from top to bottom, whether we have the mentors who are helping the students, or just the students amongst themselves.

(facilitator)

***

...when you are face-to-face you are able to create a community which is richer and broader

(head of department)

The teaching team has created an environment of weakened framing over hierarchical rules to support this sense of community, and to allow students to be vulnerable. To achieve this the teaching team has needed to disrupt the hierarchical structures that students experienced in their school environment and, indeed, in many of the other academic environments within the institution. As in other case studies, students commented on the educational development unit being their only avenue of social support in the academic environment of the university, with other courses being 'just academics'. Students are encouraged to have a voice and to be open, honest, and vulnerable,

and to engage with the teaching team as equals. The teaching team works to position themselves as facilitators supporting discussion rather than lecturers transmitting content to a passive audience.

> *...we're looking after the whole person. It's not just the academic programme. Cause even when we meet with them, it's not, how are your classes going? It's how are you doing? So even the way we frame how we speak to them, and also teaching them that they have a voice. They've gone through their whole academic lives seeing that there's a teacher, there's a man, there's a sir over there, and then there's little old me who takes the information in.*
>
> *...we're not their lecturers, we're their facilitators.*
>
> *...everywhere else they have to use all of this [points to head], whereas now they can talk about their feelings.*
>
> *(facilitator)*

Part of the mental health support offered on the programme is the assignment of a mentor for each student at the beginning of the year. As the course convenor explains, this is a further step in filling some of the social capital gaps with which students enter the university. The course convenor also acknowledges that for many students from more traditional and hierarchical home and schooling backgrounds, engaging with an authority figure in this personal way can be intimidating, thus the important role of the mentor who is generally a second- or third-year students on the same programme.

> *...at times they defer to you because in their interactions with someone of my space, they are like oh this is the headmaster, this is the whatever... so, each of our students in the EDU gets a mentor.*
>
> *It's someone like them, who has experienced this journey, who can speak their language...*
>
> *And we found that very useful...because things that they can't express to us they will happily express to the mentor.*
>
> *(Xavier, convenor)*

Overall, students had positive experiences of this mentor relationship, although the extent and scope of the relationships varied from student to student – e.g. whether the discussions were confined to academic advice or broader psycho-social support. Students valued their mentor's role as a more senior student who had already overcome many of the challenges with which they were grappling.

> *...he's been in the same situation as me, and ending up with good and better results, basically I must not give up... and believe that I can do it.*

(Bey, student)

The course convenor describes the difficult transition to university in which oftentimes students' 'sense of belonging gets shattered'. He argues that students from less privileged backgrounds often feel intimidated and marginalised within the institutional setting, feeling that aspects like their accents hinder them from participating fully in the academic programme. As an important part of succeeding within the university has to do with developing confidence and a voice, the course provides a non-hierarchical safe space in which to do this.

Based on the student feedback, it seems that this approach has been successful as students express feeling comfortable, supported, and safe enough to be vulnerable, thus minimising experiences of isolation, particularly during the difficult school to university transition. One student described the course as a 'safe space'. Several students also referred to the sense of community and the importance of peer engagement and developing support systems with other students. Students described feeling comfortable enough to reach out to staff for social support.

> *...I can say it is a community where you can just, you know those people will be there when you need them.*
>
> *(Bey, student)*
>
> ***
>
> *It was a discussion. Our tutor made sure that everyone speaks how they feel. She made sure she created a comfortable environment where everyone can be confident with how they feel... and what they want to say about the course...*
>
> *(student 4)*

Not only did the classes display weakened framing over hierarchical rules, but also weakened framing over pace, sequence, and selection. The teaching team's commitment to facilitating rather than leading, as well as being responsive to student feedback, meant that students largely directed the sessions. Again, this could go some way to developing students' confidence and voice.

> *I'm not here as teacher. I'm going to be here more as someone who is facilitating discussion amongst yourselves.*

> *You can ask me questions, but a lot of it is gonna come from you. And even when I had answers for some of the stuff that they wanted to say, I'd be like does anyone else have insights?*
>
> *They don't lend value to their own voices until they're here.*
>
> *(facilitator)*

The teaching team describes how much they value student feedback to inform their teaching and to be responsive. The facilitator, for example, describes how the teaching team gathers for weekly briefings to discuss student feedback and to use it to plan future classes. The course convenor uses online tools like Mentimeter and the LMS chat rooms or forums to collect student feedback and describes the perceived affordances of these tools in enabling students to overcome communication anxieties or other barriers to participating vocally in class. The teaching team also describes how the teacher-student relationship is enriched as students can see their feedback being requested and implemented, and thus they feel that their voices are being heard.

While the weakened framing over sequence is evident in the classes themselves, the facilitator does provide some justification for the teaching team managing the sequencing of the course schedule overall, as certain topics are strategically placed based on important milestones in the students' academic progression, e.g. their first tests.

> *So when they come back [from vacation] they reflect about ok, you've written your first exams at university level, how are you feeling now? Were you able to apply some of the skills that we gave you...*
>
> *(facilitator)*

The online course content in this case is static and asynchronous. It has been developed over the years by social workers, which explains the focus on social support and mental health, as well as the university's careers service for the content on careers discovery in the second semester. Students have this static content to work through in their own time and refer back to as needed, but the physical classroom setting allows for flexibility and responsiveness to students' needs and interests in a synchronous manner as discussed.

> *You see the stuff that is online, yes, structurally that's the course, but what the course is in the room, is very different. Half the time you might end up with you only address the top line and never talk about the rest because that's what connected with the students. That's what they actually are interested in. And then that's where the conversation goes. So that's like, sometimes we move with the students. We're not so stiff and not so strict.*
>
> *(facilitator)*

Students utilised the online course content in a variety of ways, many referring back to it as needed, as mentioned above. Some made use of the course content for pre-reading ahead of the class, while others did not find it necessary, and felt that what was covered in class would be sufficient.

As mentioned, while students are required to complete certain tasks and attend their tutorials and mentorship meetings, they are not formally assessed or graded on this course. This absence of evaluative criteria can act as a contributing factor to the weakening of framing over hierarchical rules on the course. While participation is required, this participation is not constrained by assessment criteria and thus there is less pressure and more freedom in this context, allowing students to help in shaping the sessions to their needs, rather than shaping their participation to meet the evaluative criteria. Again, staff are positioned in a facilitating and supporting role rather than in a more formal evaluating role. These aspects are in line with the approach of the course in offering a safe and supportive space in which students can be vulnerable.

A code of F+ for framing over hierarchical rules (control dimension) in the contact space is fitting, given the teaching team's efforts to reduce hierarchical elements in order to foster a family-like support structure, community, and open discussions. Students do often default to the hierarchical relationships they are familiar with from their school and home backgrounds when engaging with staff, however, and this is why the mentorship relationship with a more senior student is important in flattening those hierarchical aspects. The online space is used as a repository of information and there is little direct interaction on the course site, thus a code of F- - reflects the absence of hierarchical elements. When it comes to the explicit/implicit dimension of framing over hierarchical rules the course can be coded as F-, as the hierarchy is mostly implicit or masked to achieve these goals.

7.2 Pace and sequence

While there has been some resistance within the wider faculty to some online learning aspects, like recording lectures, given the impact on student attendance, and the concern that students will not cover the necessary content, it is evident that students generally do not intend to skip the content, but rather benefit from the academic value of flexibility and autonomy in their pace and sequence of work. Fortunately, the teaching team also recognises this benefit of the online learning environment.

> *...students were able to have more freedom to be able to learn their own way and to engage with material when they wanted to.*
>
> *(head of department)*

Although the weakened framing over pace is valued by students given the autonomy and flexibility it enables, there are other dimensions of pace that both students and teaching staff struggled with online, particularly immediacy and responsiveness. Students felt that it was important for their learning to be able to ask questions and receive immediate, synchronous responses. This experience was not necessarily relevant to the course under study, but rather to the commerce courses in their degree.

> *If I don't understand I felt like it was self-teaching. So, I didn't like that. I like it when somebody like... like the physical classes where I can actually ask questions, whereas online you can ask a question, but sometimes you might not get the same response as you would get in person, because sometimes if you don't understand, it's difficult to ask someone to re-explain through an email.*
>
> *(student 5)*

The different dimensions of pace may arise at different stages of the learning process. As this student further explains, responsiveness and immediacy are important when the lecturer first teaches them the content, but during revision, learning can be more flexibly paced and self-directed.

> *...when I say I want to work by myself, I wanna like... that is like revision, so I wanna work by myself, knowing that I actually know what I'm doing, if that makes sense. So like revision by myself, but being taught by like a lecturer...*
>
> *(student 5)*

The head of department also felt that it was crucial for her teaching of accounting to be able to immediately gauge student understanding, and to address questions and misunderstandings synchronously – aspects that were well-suited to an in-person rather than online learning environment. Walking around, talking to students, answering questions, and observing body language were all ways in which she was able to gauge student understanding immediately in a synchronous contact setting. She implies that this immediacy, responsiveness, and synchronous engagement is important in a discipline like accounting, as well as peer learning which she feels is better supported in the in-person space.

> *...immediate feedback and knowing where students are at, and scaffolding, is a huge pedagogy thrust that we have.*
>
> *...that was missing hugely in the online is that this ability for students, yes, they can go back and re-look at a lecture, and a lecture video, but I question how many students actually stop at that point, write down their query, and then followed it up*
>
> *...there were limits there. The students having to do that just felt like such a las [burden] for some of them. They would rather have just asked the question there and then.*
>
> *(head of department)*

The implication is that a discipline like accounting is one in which frequent and immediate clarification questions are necessary for the understanding of concepts and this pedagogic strategy is best supported in an in person learning environment. The head of department also explained that there is a visual element in the teaching of this discipline through, for example, drawing figures or diagrams on a whiteboard, or creating a journal entry or timeline, which she also felt were better suited to contact learning environments.

These findings regarding the importance of responsiveness and immediacy in gauging student understanding and clarifying misunderstandings, and the role of the contact space in fostering peer-to-peer learning and visual explanations, mirror the findings in the physics case study.

In terms of framing over pace and sequence (control dimension), the classes in the contact space were responsive to student needs and feedback with staff taking on a facilitating role rather than wholly directing the sessions, and thus a code of F+ is fitting. Pacing in the contact classes was not as

explicit, hence a code of F-, but the teaching team were more explicit in the contact space regarding sequence (F+) because the content was purposefully sequenced to align to students' academic timetable.

Online, sequence was indicated via the structuring of the online course sites, with content being separated into sequential weeks and units. As always, students still had autonomy over the sequence of their learning although the sequence was suggested. A code of F- is thus appropriate for the control dimension of sequence online, and a code of F+ for the explicit/implicit dimension. The online course sites did not, however, indicate the suggested pace of learning and thus a code of F - - is appropriate for both the control dimension and the explicit/implicit dimensions of framing over pace online.

While topic selection in contact classes is guided by the course content, the topics covered are shaped in large part by what students would like to cover, thus reflecting the responsive approach of the teaching team. A code of F- for framing over selection in the contact space is thus given. Online, however, there is no student input in terms of selection as this is a repository of static, asynchronous content that has been prepared in advance. A code of F++ thus indicates the framing over selection online.

7.3 Digital inequalities and digital literacies

As in other case studies, some students experienced severe digital inequalities in their home and schooling environments. One student describes the difficult transition he experienced from school to university as he did not have a computer lab at school and had not been exposed to computer programmes, like Word. He then goes on to describe how, even though there was no support at school in that regard, he ended up teaching himself how to use technology and develop digital literacies in order to access academic material that he was not receiving at school.

> *I started teaching myself a lot of things, even from high school. So, at my high school we didn't have a lot of teachers for some subjects. So, like for economics in my matric my teacher had to go for a maternity leave, so we just had to take responsibility and teach ourself. And it happened that I became one of the tutors while I was also doing matric that time.*
>
> *...when I teached myself I used to use YouTube...*
>
> *(student 4)*

This student's experience reflects the findings of Kapp et al. (2014) in their description of low-income South African schools where some sections of the curriculum are not taught, or only partially, with high teacher absenteeism, insufficient staff, and cases of students themselves taking on teaching responsibilities. It also reflects the incredible ability of these students to take initiative, develop autonomy, and overcome challenging circumstances – qualities valued within a university environment. Despite these valuable qualities, the same student described feeling marginalised and stigmatised among other university students who had more previous exposure to technology.

> *It was one of the most challenging things that I've... like coming to [university] for me was a big experience. Especially coming from a small town where... with small minded... For the longest time I thought things are like this. When I got to [university], like a lot of things changed. The rules and the principles. The way people here see things. Language. Such things. Things like also laptop were difficult to me... after a month I started being fine. But at first it was a challenge, I won't lie. It was a challenge cause especially when you go ask people who are used to PC, who look at you somehow. Is it possible that someone can't operate a PC, a [university] student?*
>
> *(student 4)*

The students who took a subject called computer applications technology (CAT) in high school generally found the transition from school to university, in terms of the technological competency

required, to be a smooth one. This is in line with findings from other case studies, but more of the commerce students interviewed had taken CAT than in the other case studies. Some students expressed having existing digital skills and literacies thanks to taking CAT in high school, but still struggled with certain aspects required at the university, such as navigating the LMS and email communication.

For students who did not do CAT in high school and had no or very limited access to technology in their school and home environments, the transition was more difficult, especially as it relates to digital literacies which are important in commerce degrees. This student describes how being competent in the use of Excel is very important for a commerce qualification. Interestingly, while the student does also mention experiencing difficulties with typing, he does not perceive this as a significant barrier to his academic work given that his degree does not include many essays. This contrasts with the social science case study in which students noted typing as a significant barrier to their academic performance given that writing in online settings (e.g. on Word and in chat rooms) was both a means of assessment, and a means of participation in classes. It is important to note how valued digital literacies that support epistemological access differ among various disciplines.

> *...you need to know how to operate Excel for this degree. It's very important.*
>
> *Excel for me was the hardest thing cause with typing, I don't do a lot of typing, so even now I'm not that quick with typing cause my degree doesn't require a lot of typing. Like essays... we do write essays but we don't write a lot of them.*
>
> *(student 4)*

As in other case studies, commerce students often relied on friends and peers for support in developing important digital skills and literacies.

7.4 Career focus – weakened classification

Bernstein (2000) defines commerce disciplines as 'regions', in other words, commerce disciplines are applied disciplines that need to cater to the needs of *both* the academy and the labour market. The commerce faculty offers degree programmes that are explicitly aimed at preparing students for careers in business - in management, finance, actuarial science, accounting, among others – and this is evident particularly in the second semester Careers Discovery portion of the course. There is a clear emphasis on skills, particularly related to the 'world of work in the 21st century' and their degrees are positioned as an important way to gain those skills. In this sense the course is very much applied in relation to the labour market and, in Bernstein's terms, there is weakened classification between the degree and the world of work. Students are often prompted in the course content to focus on application of learning, specifically to the 'real world'.

In a combination of YouTube videos from channels like McKinsey and Company and Bloomberg, among others, as well as videos prepared by the university's careers service particularly for this course, students are taught about the future of work with an emphasis on technological change. The content covers the rise of remote work, and thus the importance of learning to use technologies that support this, the role of artificial intelligence (AI) in replacing many jobs, the fourth industrial revolution, big data, and robotics, as well as e-commerce, and automation. The content references the pandemic as a key driver in the changing world of work and the skills that will be valued in future, particularly digital skills which are positioned as valuable on the course. There is, however, an emphasis on other kinds of skills as well. In the course content skills are defined as abilities that come from training, practice, and experience. The content differentiates between what it terms as "soft" skills, such as public speaking, leadership, and teamwork, and "hard skills", such as coding, research, and lab skills. Problem solving, critical thinking, people management, creativity, and negotiation, among others, are also positioned as valuable skills in the content. Many of these themes are tied together in one of the reflective assignments on the course where students are

asked to consider the impact that the pandemic has had on the world of work and to reflect on how they plan to enter this world.

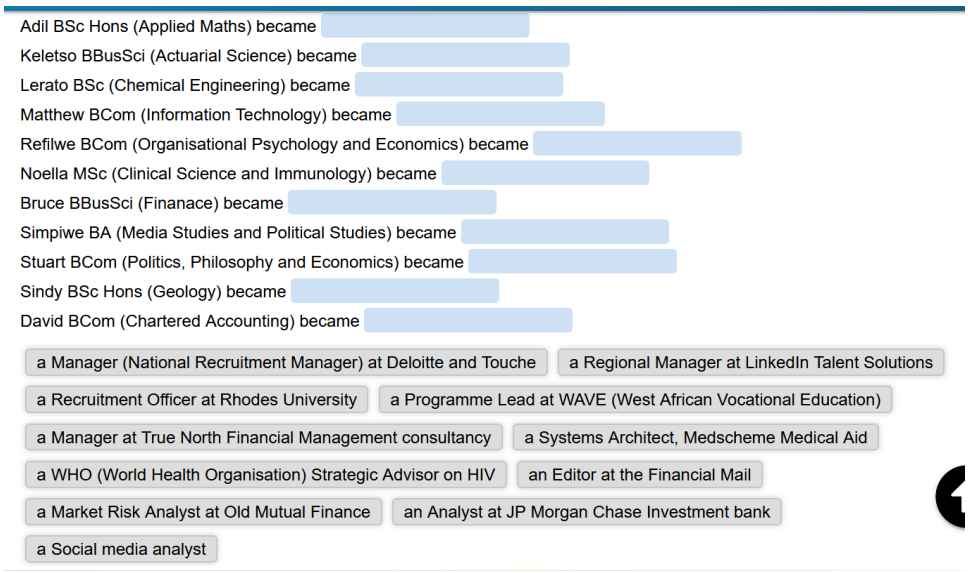
Some students acknowledged the importance of certain digital literacies for their future careers, commenting on the increasing centrality of technology in the labour market.

> *...I think we are moving more towards like a very technological world.*
>
> *...so like if you know a bit about like say maybe Excel... that would be a skill that I would need to learn that would really help me in my career.*
>
> *(student 3)*
>
> ***
>
> *I think you would need that and computer science. I think it's important since we are entering into the digital world.*
>
> *(student 5)*

One of the key messages communicated in the course content is that one's chosen degree does not wholly define or restrict one's career path.

> *Because at times it's assumed that every person in finance did a BCom or whatever, there's a lot of BAs out there who are running big financial trading houses and stuff like that. A lot of investment bankers who have no commerce background. And so, we try to illustrate that this must not make you feel restricted in terms of what you could potentially do.*
>
> *(Xavier, convenor)*

Given the weakened classification between the course and the labour market, and the applied nature of the faculty, it is interesting that in the Careers Discovery section of the course it is repeatedly mentioned that the skills acquired during the degree are just some of the skills needed to enter the labour market, and skills gained from other contexts are necessary - I.e. the degree itself is not sufficient to secure a career. In one exercise students are asked to complete a job matching exercise where they need to match the graduate and their degree with their current career:



(Online course site, Careers Discovery)

After their attempt they can reveal the correct answers. The exercise is intended to be tricky with the graduates being in positions that often seem unrelated to their degrees. The presenter in the video following the exercise states:

> *So did the activity surprise you? Did you match any of them correctly? Some are unexpected aren't they?*
>
> *I am sure you expected that the person who studied actuarial science would become an actuary, and the person who studied finance would become a financial manager, and so on.*
>
> *What explains the unexpected outcomes?*
>
> *(Online course site, Careers Discovery)*

The video then goes on to explain some of the matches. Bruce, for example, had a love of writing which became a hobby and that, in combination with his finance degree, led to his position as an editor at the Financial Mail. When Refilwe was a student, she managed the social media platforms for the commerce faculty council as an extra-curricular activity. This experience, in combination with skills and knowledge from her majors in organisational psychology and economics led to her current role as a social media analyst.

The video goes on to discuss some takeaways from the exercise, including the assertion that one's chosen degree does not necessarily have to relate to the work that one does, and that jobs require both knowledge and skills, with many skills being transferable from contexts outside the university,

e.g. work experience, hobbies, extra-curriculars, or voluntary work. This video positions skills and knowledge gained from one's degree as just one of many equally important sources of skills. It also suggests that one's degree is versatile in combination with other experience and skills, enabling several career options, rather than being constrained to one area.

A range of skills is deemed important in this course, and students are encouraged to look outside their course, and also outside the university, to gain the skills required to pursue a career. This further emphasizes the weakened classification between the degree and the labour market. Examples of transferable skills that are applicable in the workplace are provided in Unit 3, such as leadership skills gained from positions in student leadership and societies, or communication skills gained from a stint at the university radio station. The course content goes on to state that your experience does not need to be directly related to the job to which you are applying, as long as the skills you have gained are transferable in relation to the position. Evidence of skills acquired, along with quantifiable indicators are important, and students are provided with examples in the content of how to use action words, time frames, and results to communicate this.

The course emphasizes skills, while knowledge is rarely mentioned. Muller & Young (2014), however, warn against a narrow focus on know-how, skills, or professional competences that neglect conceptual knowledge. This could, in Bernstein's terms, see higher education fall into context-dependent horizontal rather than abstract vertical discourse. They argue that the mastery of practical skills is dependent on the conceptual knowledge, rather than replacing it, and that different disciplines require different proportions of both practical and conceptual knowledge based on the extent to which the disciplines are vocationally or academically oriented (Muller & Young, 2014). Regardless of their status as pure or applied, soft or hard, specialised disciplinary knowledge forms the basis of university curricula and is differentiated from everyday, common-sense knowledge (horizontal discourse) (Muller & Young, 2014). Muller & Young (2014) argue, therefore, that higher

education is defined in terms of specialised disciplinary knowledge to which all students are entitled epistemological access.

Evidently, the message in the course content that your degree does not confine you to a singular career path is something that resonated with students as most of the interviewed students raised it as an important takeaway from the second semester course content. It also meant that students were already envisioning careers or entrepreneurial opportunities outside of their major or qualification.

> *...there's this one interesting thing that I've learnt that the thing's that... it's not really usual that what you are studying now is something that you will pursue, something that's going to be your career, for example, I'm majoring in financial accounting, but I could end up doing something else that has nothing to do with accounting. So, it was just very... an eye opener also.*
>
> *(student 3)*
>
> ***
>
> *...there's also other choices. Like if you're studying accounting, there's other things that you can do, you don't necessarily have to be an accountant.*
>
> *(student 5)*

The emphasis in the course content on the importance of building up one's CV and getting a range of experience, both within and outside the university, including work experience and volunteering, also resonated with students, with many describing their plans to gain this experience.

For the teaching team, it is important to provide this career guidance to fill what they see as gaps in social capital with which predominantly first-generation students enter the university. Students from less privileged backgrounds, particularly those from rural areas, may have little or no exposure to family or community members that are in lucrative professional careers who can advise them on career paths, and schools also provide very little career guidance (Sadler & Erasmus, 2005; Marshall & Case, 2010). This may result in students pursuing a narrow range of traditional career paths – doctor, lawyer, accountant – without receiving any guidance on the vast range of potential career paths in the modern labour market. As the convenor indicates, students' parents may also be

resistant to their children pursuing career paths which deviate from these traditional roles, particularly when they have limited knowledge of the degrees on offer and the range of contemporary career paths.

> *If you had parents or uncles or someone in your family who would go to varsity before you, then you also get some benefits of the experience.*
>
> *...they are making career choices out of a lot of... they will have gathered some knowledge through whatever means, again I said it's students with agency, so they will figure out things. But they will be looking at a neighbour who is driving a big car, and then they will ask who and what do they do, oh they are an accountant, poof! I want to be an accountant.*
>
> *…they will watch a programme on TV, Isidingo, and they'll say oh that's what a banker looks like. So, they make decisions that really aren't... there's no personal level of interaction that helps them navigate that. All they see is what they assume a banker is, what a finance, accounting somebody is, but they really haven't interacted close enough to understand this space.*
>
> *(Xavier, convenor)*
>
> ***
>
> *Um, it made me re-think things because with the career module is you learnt that there's more into these careers than we have been taught. It's not only medicine that's there (laughs) and teaching and all those things that we're being taught about back in high school. You realise that there's a whole lot more of careers that are out there and me doing this degree does not necessarily mean that I'll follow the same career path.*
>
> *(student 1)*

In filling these gaps in social capital, the course convenor implies that the EDU is filling a role that, for students from privileged backgrounds, may be filled by a parent or other family members. This again emphasizes the family environment of social support, the weakened framing over hierarchical rules, that the programme aims to foster, and weakened classification. These career decisions that may have traditionally taken place with the family in the home, are now taking place with academic staff in the university – blurring the boundary between the home and university environment.

This reflects an interesting relation between the family positioning and community emphasized in the course, and a weakened classification between the EDU programme as a whole and the labour market. Teaching staff take an active approach to their students' career development – supporting networking and job opportunities in industry and within the university itself. So, while there may be

initial feelings of stigma or 'othering', graduates of these programmes often proudly embrace this identity. The EDU identity is often placed as paramount, above the faculty or disciplinary identity. Rather than adopting a deficit view, the teaching team recognises the privileges and advantages that the programme affords, particularly the community and network both within the university and in industry that students can draw on for their own career progression.

> *...the opportunities that the EDU provides students. So, we really really believe in growing our own timber… for example, now that I've taken over the HOD position, my teaching has become much less, so I headhunted an EDU student who was teaching, and she's coming to join us for two years because this is going to be a real, you know, spring for her into higher education.*
>
> *And it's because she will understand that student experience. You know, what they are... where students come from, what their issues are.*
>
> *...one [EDU alumni] is with [accounting firm] and she does all the recruitment.*
>
> *And the circle of life. The EDU is able to continue and underpin because of people leaving, coming back, leaving, going into the workplace, funders having feelers because they've got alumni. Investec have... oh we've got an EDU alumni in our team and this is... Bain, Deloitte, all of them.*
>
> *(head of department)*
>
> ***
>
> *That is one of our strengths as a unit, because the EDU identity is something they're proud of, even when they graduate, it stands out if it's known that they were an EDU student. [Employers] know already, this student's coming with this level of EQ, this level of self-awareness, and being able to talk... being more personable as well.*
>
> *You already know that you're getting that package with this student because they come out of EDU. So, it's not just within the university, also outside.*
>
> *(facilitator)*

Many of the students' career decisions are informed by labour market considerations, including income and job security. There are also bursaries available, e.g. for chartered accountants, accompanied by a guaranteed job offer at the end of one's programme. For students from less privileged backgrounds, these career paths may be a viable route out of poverty, and thus these practical considerations often overshadow students' personal interests.

> *I will get a job as in here you even sign a contract before even completing your degree. And for me it was just like you know I need to...*

(Bey, student)

***

I also looked at like the demand in the country, and in other countries, and like all the... I also looked at the income. I looked at my interests.

(student 5)

***

And also it's a means to get out of poverty. The expectation is that you are going to go into these kinds of careers and voila, our family is out of the doldrums.

(Xavier, convenor)

Rather incongruously, the course content stresses the importance of enjoying what you are studying and implies this is crucial in order to do well academically, even implying that not enjoying one's studies can hinder skills development. In the case that students express a lack of enjoyment in their chosen degree, they are advised to contact the university's careers service to discuss their options and alternatives.

While the course convenor acknowledges the financial and job security considerations in these career decisions, he also stresses the importance of students following their interests, which may result in pursuing different qualifications, or even switching to other faculties. Again, because one's qualification does not define one's career path (according to the course content), a student could pursue a qualification in another faculty and still find themselves in their desired commercial career in his view.

…are you in the right fit? In terms of – are you enjoying your studies? Are you, did you do what you are doing as an economic decision? Or did you do it because... because a lot of students are doing things that they are doing because, I don't know, their parents chose that for them. Or they got a bursary that insists they have to...

(Xavier, convenor)

For this student, the message from the course regarding enjoying what you are studying in order to do well seems to have resonated. The student actively nurtures their passion for the accounting discipline in an effort to complete the qualification successfully. Interestingly, the student's first choice in terms of a career path was teaching, but economic considerations led him to pursue

accounting, although, in the long term, he hopes to combine these two passions in an accounting lecturer role at a university.

> *I'm passionate in teaching, so choosing CA over teaching it was because of I think the economic... the economy structure and the job security.*
>
> *…my plan for now is to then like give myself like at least a maximum of eight years in the corporate space, and then try and further my studies... become a lecturer for accounting, cause I'm very passionate about teaching, and when I grew up everyone wanted to be a doctor and I wanted to be a teacher.*
>
> *...because of, you know, the economy that we're in right now in South Africa I had to choose wisely. For me to be in the space where I cannot be rejected...*
>
> *...I love accounting, so I was like I need to make sure that I don't lose the love I have, the passion I have, how I'm passionate when I'm doing accounting, I need to... how can I say it... but I need to hug that til I complete this degree so that I cannot see the hardness or even when I see but I see the worthy [unclear] at the end of the day, and the motivation you get from YouTube, from qualified chartered accountants you know, they tell you how when you qualified, that will just keep you. So, whatever you think in the hardness you go through, you just feel like I'm gonna go through them, I'm gonna pass them, and I'm gonna be good at the end of the day.*
>
> *(Bey, student)*

The very nature of disciplines within the commerce faculty as 'applied' and as 'regions', in Bernstein's terms, requires a weakening of classification. This course demonstrates weakened classification, particularly in relation to the labour market. The assertions in the course that students will need to develop many of the crucial skills for their intended careers outside the university suggest a weakening of the boundaries between the university and the outside world. The course also indicates a weakening of boundaries with other disciplines, suggesting that many of the skills relevant to students' intended careers are gained in a variety of disciplines outside of commerce. The ways in which skills are conceptualised in the course reflects an understanding of them as generic, decontextualised, and transferable across disciplinary boundaries, which differs from arguments in the literature which position skills as embedded in disciplinary knowledge for their power (Wingate, 2006; Durkin & Main, 2002; Ellery, 2017b). A code of C- for both classification relating to other disciplines and to the everyday is suitable in this case.

One of the aims of the course - to provide students with career guidance and support - also requires a weakening of classification between the university and the home, and between the roles of the teaching team and the family. Guidance and support that was conventionally confined to the home and the family is now taking place in the university, with academic staff filling some of the familial roles in this regard.

7.5 Disciplinary academic and digital literacies – a generic approach?

While the second semester Careers Discovery course makes more explicit reference to the commerce disciplines in terms of the world of work, skills required in corporate environments, and career paths suitable for commerce graduates, there is little reference to commerce in the first semester. The content in the first semester section of the course is better described as generic study skills that are not specific to any one discipline. Authors such as Wingate (2006), Durkin & Main (2002), and Ellery (2017b) highlight the importance of academic literacy support that is embedded in and relevant to disciplinary teaching and learning, rather than generic and decontextualised study skills approaches. They argue that students often find it difficult to see the direct relevance of these courses to their disciplinary work (Wingate, 2006, Durkin & Main, 2002).

When asked if there were any topics they would have liked covered in the course that were not, this student noted financial literacy, especially given its place in the commerce faculty, and the relevance to those disciplines. This may speak to the more generic nature of the course.

> *Ah, I feel like financial literacy... especially if it's a commerce course, financial literacy is key. We need to educate students on how to use and the importance of money, how to use money, how to control their cash flow. It's really important...and it's not spread enough in our educational systems.*
>
> *(student 4)*

A generic and decontextulised approach is taken for the digital literacies on the course as well. The course has a section covering how to use different online platforms at the university, like the LMS, the administration portal, email, and Teams. While practical, technical guidance is provided, discipline-specific digital literacies are not explored.

Generic academic guidance is provided in the first semester content, as in the below:

Lectures

Before the lecture – Read the relevant lecture notes and readings

In the lecture – Listen attentively, make notes, ask questions

After the lecture – Review your lecture notes, prepare for the next lecture

Tutorials

Before the tutorial – Read the relevant tutorial notes and readings, prepare your task for hand in or discussion, prepare for tutorial tests

In the tutorial – Listen attentively, note where you went wrong on prepared tasks and ask questions of clarity

After the tutorial – Review what you've learnt, prepare for the next tutorial

Assignments

Read the question carefully

Make sure you know the deadline

Make an appointment with The Writing Centre to help with structure, proof reading and referencing in advance

Don't leave it until the last minute



(Online course site, Self-development)

While the tips are valid, the guidance may not be explicit enough in terms of academic literacies, e.g. how does one read and write appropriately in commerce disciplines? What kinds of questions should one ask? How do you listen attentively? Later in the course students are provided with a list of study techniques:

Effective Study Techniques:

- Have an appropriate study environment
- Split large tasks into more manageable tasks
- Read for comprehension, rather than just to get to the end of the chapter
- Be prepared to ask questions as they come up during study, rather than waiting until just before a test or exam
- Do the most difficult work first, perhaps break it up with some easier tasks
- Don't wait until the last minute to study

Which of these areas do you need to adopt in your own approach to studying at the moment?

(Online course site, Self-development)

Again, the guidance may not be explicit enough in terms of disciplinary academic literacies. What is an appropriate study environment? How do you read for comprehension in this discipline? The content may therefore support recognition rules, but not realisation rules in terms of academic literacies in this faculty.

There is some suggestion in the semester 1 content that different disciplines within the commerce faculty require different teaching and learning approaches, but these differences are not elaborated, and it is not clear what demonstration of learning is valued in each department or faculty.

Although the course may not necessarily support the development of discipline-specific academic literacies, students still value its function in providing social support, guidance (career and otherwise), and community, as well as the importance of these broader life skills – such as insight into mental health and how to manage it. In general, students had very positive experiences on the course and were satisfied with the extent of content covered. Students likely receive the necessary discipline-specific academic literacies in the augmented courses they are completing as part of the extended programme as they do display an awareness of how valued academic literacies vary among their different courses and disciplines, and how this impacts the way they approach learning, studying, and revision.

A key way in which students describe and differentiate between their different courses is via the dichotomy of 'theory' or 'practical' focussed courses. Subjects like mathematics, for example, are often perceived as procedural with an emphasis on practice.

> *...with accounting and ecos and maths, you need to do more practice, you need to like, for you to get the understanding of how do they structure questions, how to attempt questions. When you see this kind of a question, where to start... with maths you need to understand the procedure of how to attempt and do questions...*
>
> *(Bey, student)*
>
> ***
>
> *...every course deserves their own... they need their own strategy on how to study. Cause you cannot study accounting the same way you study… a theory course like business ethics. A philosophy course.*
>
> *(student 4)*
>
> ***
>
> *If it's like maths I just practice. And then if it's like [economics], I practice and do theory because it's both, whereas like maths there's not much theory. Doing theory only will not really help you, but practicing will help more than doing theory for mathematics. So, I feel like with that combination, it really depends on what I am actually studying.*
>
> *(student 5)*

The course convenor also acknowledges the importance of grasping the various academic literacies and how they differ among disciplines, referring to different disciplines as having different 'languages'.

> *How do you also start learning the language of academia? Because that's a different language. We are not talking about English. It's the pedagogic language of the curriculum that you are studying. The language of economics. The language of finance. The language of accounting.*
>
> *(Xavier, convenor)*

Students display strategic, purposeful, and goal-directed behaviours in how they adopt different strategies and approaches in their learning on different courses – some of the behaviours that are cornerstones of UDL's concept of an 'expert learner' (Rose & Gravel, 2009; McKenzie & Karisa, 2021; CAST, 2017). This student describes a unique and interesting approach to grasping the academic literacies of a discipline. He takes a macro view and aims to distil the core principles and tenets of a discipline. New topics and information are then subsumed into his broader framework and understanding of the discipline.

> *...in each and every course there's a basic or a foundation where the whole course will be structured about. That's how I do my courses.*
>
> *I notice that everything in accounting boils down to that accounting equation where A = E + L. If you can understand that then everything in accounting becomes so easy with you. And with financial management I saw that the whole structure, the whole course is structured on decision makings by the management. So, with each and every course I try to understand what's the whole course all about. Then all those topics you can make a circle. It's gonna join.*
>
> *...I try to make sure all the topics connect...*
>
> *(student 4)*

There are certainly generic aspects to the course in terms of the study skills and career guidance components, and even in how student identity is positioned in terms of market relations (Wheelahan & Moodie, 2021), as will be discussed in the next section. This is due in part to the structure of the extended programme in which this general academic, social, and career support is separated out from disciplinary teaching and learning – the disciplinary aspects being covered in the augmented courses. The programme as a whole, however, is still best described as a region rather than a generic

mode (Bernstein, 2000), as it looks both inwards toward the disciplines, and outwards towards the market. Students still demonstrate a strong grasp of many academic literacies associated with various commerce disciplines.

7.6 Disciplinary identity

There are few explicit references to the disciplinary identity the course aims to foster in the online course content, but there are some suggestions as to the characteristics of commerce students and graduates at various points. In the course content the ideal commerce student is characterised as resilient, hardworking, motivated, efficient, disciplined, helpful, and not afraid to ask for help from others.

While the above qualities may characterise a successful student in any discipline, there are other instances in the course where identities are defined specifically in terms of labour market relations, which seems fitting given the applied nature of the faculty and illuminates the nature of the regulative discourse and how social roles are defined. In the course content references are made to 'workers', 'employers', 'employees', and 'customers'. The focus on skills in the course feeds into how identities are defined and positioned in the labour market. In one of the careers service videos important skills in the workplace are defined, including people management which involves "developing people's work activities and performance with the goal of optimising efficient use of talent" and "focussing on unlocking and channelling employees' potential". In this example the student seems to be positioned as a future employer, whereas in other parts of the course content they are positioned as a prospective employee, applying for a position with an employer, such as when developing one's CV and applying for jobs. Even mentorship is positioned in terms of a workplace relationship - "Mentoring can be described as a dynamic and reciprocal relationship in a work environment whereby a more advanced and wise career incumbent (mentor) helps a less experienced person".

The distinction is made several times in the course between attributes, that are defined as inherent qualities and traits, such as extroversion, and skills which are learnt and practised. The content does note that companies often look for a mixture of attributes and skills when looking to fill roles, and students should look for work environments that align closely with their values and attributes. Again,

identity is understood in terms of labour market relations in a task where students are required to list their important values in order to help them choose the sort of environment they would like to work in one day.

At this point in their first year, the students have not developed strong disciplinary or professional identities yet. When prompted to envision themselves as commerce graduates, or as graduates or young professionals within their chosen fields, they often describe generic qualities or characteristics, particularly confidence. Because understanding and developing clear disciplinary identities is a facet of epistemological access within the institution, this is something that could be more explicitly communicated and fostered within their programmes.

The head of department views both disciplinary and professional identities as integral to many of their programmes, acknowledging the labour market orientation of many commerce programmes.

> *...the CA route really is both a discipline-specific and then professional-specific...*
> *(head of department)*

Interestingly, the faculty has historically had a generic first year in which students from different specialisations would take the same courses, whereas from 2023 they have decided to immediately specialise students based on their chosen degree programmes (e.g. chartered accountancy). This increased specialisation from early in the programme reflects a strengthening of classification. It is also important to note these developments when considering that the first-year students interviewed did not display strongly formed disciplinary or professional identities as yet. As mentioned, the course content also does not refer to specific disciplinary or professional identities, rather referencing generic labour market identities.

This approach in the commerce faculty stands in contrast to the approach taken in the humanities faculty where students are exposed to a wide range of disciplines and are encouraged to explore ones in which they are most interested – and thus weaker classification between disciplines. It also stands in contrast to the insights from the physics student interviews where these students were

often undecided on their specialisation or were using physics and the BSc as a stepping stone to other qualifications, like medicine.

Also interesting to note is that the strongly classified discipline and professional paths in the commerce programmes are at odds with the online course content, which suggests not only weakened classification between commerce disciplines and the labour market, but also weakened classification between commerce disciplines and other disciplines, particularly social science disciplines, like psychology. In the Careers Discovery section, it is suggested that a mixture of commerce and social science skills are valuable in certain careers, and that there is some overlap in terms of skills between disciplines. In one section, the content refers to 'skills from economics and psychology', referencing analytical skills, data handing, statistics, problem solving, and writing skills.

The content seems to suggest that degrees in commerce allow for interdisciplinarity to some extent as they are not strongly classified or insular disciplines. Again, these skills and their interdisciplinarity are framed as valuable with reference to the labour market and its requirements. This sentiment is evident again in one of the quizzes:

> Creativity is:
> ◯ A. Only for those who study Humanities
> ◯ B. The use of imagination or original ideas to create something
> ◯ C. The ability to design and draw

(Online course site, Quiz)

Through the lens of skills that are considered valuable in the labour market, there is weakened classification between different disciplines and the potential for interdisciplinarity in the online course content but, again, this seems at odds with the commerce faculty's intention to more strongly specialise their programmes moving forward.

7.7 Table 15: Coding summary: Commerce case study

		Framing									**Classification**	
		Pace		**Sequence**		**Hierarchical rules**		**Evaluative criteria**		**Selection**	**Classification: course and other disciplines**	**Classification: course content and everyday knowledge /examples**
		Control	explicit / implicit	Control	explicit / implicit	Control	explicit / implicit	Control	explicit / implicit	Control		
Codes from the data	**Online**	F--	F--	F-	F+	F--	F-	n/a	n/a	F++	C-	C-
	Contact	F+	F-	F+	F+	F+				F-		

7.8 Conclusions

The primary aims of the commerce case study course relate to addressing students' social capital and, while generic academic 'study skills' and career guidance are addressed, the overwhelming emphasis in the course is on 'family' and 'community'. Discipline-specific academic literacies, on the other hand, are addressed in the augmented courses on the extended and augmented degree programmes. This is a different approach to the other case studies in this research which centre the academic literacies within a broader socially supportive structure, whereas the commerce extended programme largely separates these functions.

The ways in which social support is provided blur the boundaries and weaken classification between the university and the home, and the teaching team and familial roles, which speaks to how the regulative discourse is shaped in this case study. The teaching team is of the view that this social support is best suited to small group tutorial settings in which framing over hierarchical rules are weakened and staff are positioned as facilitators rather than lecturers. Students are given autonomy in directing these sessions to a large extent based on their needs, thus weakening framing over pace, sequence, and selection in these contact spaces. Mentorship also plays an important social support role and weakens framing over hierarchical rules further. Given the absence of evaluative criteria on the course, students' participation is not constrained by assessment criteria and hierarchical rules are further weakened as staff are not formally assessing students' contributions.

While contact facilitation on the course is flexible and responsive, the online course sites act as a static and asynchronous repository of content that students can refer to at any point. While the sequence is suggested through the structuring of units, there is no indication of suggested pace online.

The findings from the staff and student interviews in this case study reflect the dimensions of pace most pertinent to conversations about pedagogy in commerce disciplines. Like the physics case study, academic staff highlighted the importance of responsiveness and immediacy in teaching in

commerce disciplines, like accounting, as well as peer-to-peer learning, which are best suited to synchronous contact learning environments. This pacing is necessary to provide immediate clarifications of equations, for example, as well as quick-fire questions and answers.

As in other case studies, digital inequalities impacted students' learning, but the digital literacies required were different and related primarily to the labour market, e.g. a focus on Excel. Those who took CAT as a subject in high school were better equipped for the digital literacy demands of the programme. The findings do indicate, however, that the inequalities students faced could foster resilience, initiative, and autonomy – aspects valued at university.

Given the nature of commerce disciplines as both applied and regions, weakened classification is necessary between the discipline and the outside world, particularly the labour market, which was evident in the course and especially the careers discovery portion of it. Regarding students' epistemological access, the course suggests that important skills are acquired outside of the commerce faculty in other disciplines, and indeed outside of the university itself, through work experience, volunteering, and so on – thus further emphasizing weakened classification. The course constantly reiterates the point that one's career path is not constrained to one's qualifications and thus skills are positioned as generic and transferable across disciplines rather than being contextual and embedded. Students are encouraged to pursue their interests, but this message can be at odds with the more pragmatic financial and labour market considerations that economically disadvantaged students often make.

Disciplinary identity is positioned in relatively generic labour market terms on the course, and students have not yet grappled with their own disciplinary identities. The commerce faculty is moving towards greater specialisation from the outset of the degrees, reflecting strong classification between insular disciplines, however this is at odds with the weak classification fostered on this course. Interestingly, the EDU identity is often positioned as paramount, even more so than disciplinary identities.

Despite the commerce case study course featuring aspects that are discouraged in the literature – i.e. generic and decontextualised 'study skills' content, and the online course site being positioned as a static repository of content – students valued and enjoyed the course and found it effective in terms of the social support and sense of community it provided. While the online course content focussed on generic study skills and career guidance, discussions in the physical classroom focused on psycho-social support. Although the programme separates out psycho-social support from disciplinary teaching and learning, these literacies are addressed in the augmented courses. In fact, there could be value in students having a space with weakened hierarchy and absence of evaluative criteria in supporting psycho-social needs. It is a different approach to the other case studies in this study, but not a lesser one.

The teaching staff on the extended programme have made a great deal of effort in overcoming some of the misconceptions and stigma regarding the programme and continue to work to embed this support in the mainstream. The benefits of the programme in terms of students' sense of community and support, epistemological access, and social capital are evident, and many have taken on the role of ambassador and advocate for it.

Chapter 8: Common themes across the study

In conducting the exploratory pilot work and then the case study research, it became evident that there were general themes across the findings, many of which spoke to common experiences and perceptions of online and blended teaching and learning in South African universities during the years just prior to, during, and subsequent to the COVID pandemic and lockdowns. The research, set in the field of academic development and extended curriculum programmes, in particular, also delved into perceptions of and approaches to ECPs from both staff and student perspectives. While the case study chapters reflect findings unique to the nuances of their disciplinary contexts, this chapter communicates general themes relevant to the study as a whole and to the broader SA HE context.

8.1 General themes related to online and blended teaching and learning in South African higher education

The following sections discuss general themes from the data related to online and blended teaching and learning in SA HE, including the benefits and challenges of weaker framing over pace and sequence, digital and other inequalities, weakened classification in space and time during COVID lockdowns, and the value of a blended approach espoused by participants.

8.1.1 Pace and sequence: the benefits and challenges

Students across the case studies valued the flexibility and weakened framing over pace and sequence in the online learning environment, and the greater autonomy it afforded them in their learning. Being able to work at one's own pace and refer back to a permanent record of online course material at any time were aspects that were perceived as highly useful. Students described re-watching videos multiple times, for example, until they grasped a concept.

> *...I watch the video and if I don't understand I go back and watch it again. And also, when I'm revising, if I have forgotten about something I have to go back and re-watch the videos.*
>
> *(student 3, commerce)*

***

> *I'm a person of my pace...*
>
> *You know I can't study under pressure, I just can't do it because it is a lot... I just need to space it out myself...*
>
> *...because the content is not easy for me to just say I'm gonna do it today, end of this week I understand everything, I'm gonna be good, no you need to go through it more and more and more.*
>
> *(Bey, student, commerce)*

Students felt that the flexibility was beneficial for their learning as they could work at a pace and sequence that suited their preferences and workload. They found that they could even get ahead on work given this flexibility.

> *Sometimes to save time I do a bit more than what I'm supposed to so that I can finish it, and then like I will finish the stuff before the lab session (laughs), and then just like when I'm in the lab I'll check if everything is right, if I have questions and anything and then I'll ask. It helps a lot.*

(student 4, humanities)

Autonomy and flexibility in pace are viewed by students and staff as an affordance of the online platform in addressing digital inequalities and supporting epistemological access across the case studies. In addition to the epistemological value, participants noted practical value as well, such as being able to balance studies with childcare or paid work. This flexibility is also beneficial given the severe spatial inequalities in many South African cities, in which some students live in far-off, marginalised areas, compounded by unreliable or unsafe public transport (Lloyd et al., 2021).

> *If you are feeling pressured, or you are feeling overwhelmed, or whatever, you can sort of work at your own pace if everything is online, you can sort of self-pace I guess. You can also keep referring back to stuff in the online space. It is not a one and done thing.*
>
> *...a lot of them didn't live in [suburb where the university is based], so it's not like a 5, 10 minute walk to lower campus, and catch the shuttle and you are on campus, no some of them were schlepping for like two hours to actually get to campus. It's travel time you are factoring in, by the time I get home I'm tired.*
>
> *(educational technologist, humanities)*

While online learning may offer students autonomy and flexibility via this weakened framing over pace and sequence, it does also require self-regulation and a certain level of comfort with self-directed learning. Most student participants were in their first year of university study, which is a time of significant transition, moving from school environments that are often characterised by strong framing, to a university environment characterised by weaker framing over aspects such as pace of work, and thus greater student autonomy and independence. This is even more prominent in the courses under study which all expected students to work through much of the content online at their own pace. Some students struggled with the expectations of self-regulation and self-directed learning, particularly with crammed academic timetables and high volumes of work.

> *The thing that I didn't like about online learning is that most of it focusses on your own self-discipline, because you have to set your own pace. Lecturers they just give you this week we are going to do specific topics you have to decide on when to study, when to do your notes...*
>
> *(student 1, physics)*
>
> ***
>
> *...you have to make sure that you are well up to date with your lessons...*

...and studying consistently, but also giving yourself time to rest.

...I think it was because I had that mentality that I can read...I can, there's time, you know when you always tell yourself there's time… but at the end of the day I realised that there wasn't time.

(student 3, commerce)

***

...particularly with the first years, what we find is that students are coming from an environment where the bell rings and they're told where to go next and what to do next and which class to be in next, and so there was a real lack of discipline, and still to be able to plan timetabling, and to be able to finish work, and plan time management. So, I think that the students... the downside of that was that the students either got left behind or felt overwhelmed and stressed, whereas when it's face-to-face, they know every single day they go from this lecture to that lecture. This is 45 minutes, that's been done...

...an online environment requires an incredibly disciplined and a fairly mature student to be able to cope with it completely.

(head of department, commerce)

As detailed in the case studies, teaching staff often responded to these challenges by carefully structuring, signposting, and scaffolding their online course sites to support students in their self-regulated learning. The importance of this careful guidance and structure to allow students to take advantage of the benefits related to autonomy in the online space has been noted in SA HE empirical work (Winfield & Whitelaw, 2025). As Muller (2014) notes, Morrow may have been hinting at this practice when discussing distance education for large student cohorts in the context of epistemological access – suggesting that the 'learning package' itself may communicate the structure of learning without requiring a teacher synchronously present.

When it comes to regulative discourse, academics often aim to support the transition for students from more passive learning behaviours at school to more active ones at university. In terms of students conduct and character, the expectation is that students will develop self-regulation and self-directed learning behaviours. Indeed, as discussed, the online learning environment can be used to support autonomy and self-regulation as students have more control over the pace and sequence of their learning, but this needs to be carefully supported.

8.1.2 Digital and other inequalities

Many students experienced a lack of exposure to and familiarity with hardware and technology in their school and home backgrounds, leading to a lack of development of basic digital skills, which presented difficulties when navigating online learning environments. In some of the schools that these students attended they either did not have computer labs, or their use of the computer labs was restricted (e.g. they were reserved for students taking specific subjects), thus limiting their opportunities to develop familiarity and competence with technology. Similarly, many students had limited autonomy or restricted access over their technology use at home.

> *…I got time to do my work at school because I didn't have access to Wi-Fi and everything at home. I live in a village so there are no Wi-Fis available around to work on.*
>
> *(Nemhara, student, physics)*
>
> ***
>
> *...we didn't have laptops, we didn't have computers, we didn't have Wi-Fi. It was just your basic school.*
>
> *(student 6, social science)*
>
> ***
>
> *...our students, some had never touched a computer before they got here...*
>
> *There were a lot of students who initially couldn't afford – one, the laptop, the infrastructure, two, the data and all that [during COVID].*
>
> *...especially students like ours, because they are coming from tough economic backgrounds, and also they live in very tough spaces. If you are in the township, multiple siblings in the house, you're the caregiver or... so those were some of the challenges.*
>
> *(Xavier, convenor, commerce)*

For some students, their only exposure to the internet before university was via mobile, and thus the transition to using laptops and desktops, and specific software programmes, like Word, was a difficult one, that involved adapting to certain haptic learning features, such as typing on a desktop or laptop keyboard. Thus, while students were familiar with technology and the internet, they needed to adapt to the different hardware of laptops and desktops, as well as adapting to the academic and administrative functions of internet use at university with which many were unfamiliar, e.g. formal

email communication, Excel, Teams, etc. Careful guidance is crucial in outlining the differing expectations between informal online communication and formal academic writing.

> *For me the most difficult thing was using a keyboard and the scroll thing instead of the touch screen, because now you are going back to using the mouse and the keyboard.*
>
> *(student 1, physics)*

***

> *I can't even copy and paste. Sometimes the lecturers would send a link. I wouldn't know what to do with it. I don't know how to take that, watch that. It would be hard.*
>
> *Most of the time it's just technology that I struggle with, not actually the content.*
>
> *(student 5, social science)*

Students often took the initiative to teach themselves how to use the new technology, as indicated below.

> *I had to learn, did a lot of reading about how to use a laptop, watched videos to making more, so that I can get the best outcome from using it instead of my phone. Because I've been using my phone for a long time and switching from a laptop was a bit different, the operating system was also different.*
>
> *(student 1, physics)*

In cases where students had had prior exposure to these aspects they were better-equipped to navigate some of the technical aspects of their courses, especially as in many cases the courses did not require advanced digital skills.

It was evident from the research that peer support plays an important role for students in both academic and digital literacies. COVID thus isolated students from support networks and peer-to-peer learning and collaboration that are vital in epistemological access to the university. The oftentimes informal guidance and cues students would rely on from fellow students and staff were now missing in the online space.

> *What COVID has done is it's kind of deepened the fault lines and so the issues that were there all along have become more apparent. So, the issue of students experiencing [university] as quite an alienating environment, first year students, more so in the current circumstance.*
>
> *The problem of students trying to go it alone, cause that's how they got through matric, was being very independent, and having agency to make sense of textbooks or whatever on their own cause there weren't a whole lot of people who could help them.*

But actually, to survive university, you need to make networks with other students, you need to work together, but that's that much harder under the current circumstances.

(Lesley, convenor, physics)

In addition to the difficult transitions related to technology and online learning, many students experienced other academic and personal difficulties during this transitional period.

Because when I struggle with something, I don't think I'm that headstrong, mentally. I can do everything. I know I can. But when I struggle it's like... I don't know how to explain it. It's like I feel too much pressure and then I stop functioning.

(student 6, physics)

***

I will say that I feel like I stood in front of this train, you know, there was like university, and I wasn't actually strong enough to stop it and everything, so it just ran past me…

(student 2, physics)

The physics course convenor is of the view that the hardships and inequalities that many students face can develop resilience, independence, and self-driven learning – qualities that are beneficial and valued in a university setting. In addition, while students' educational backgrounds were often confined to rote learning, there is an important role for rote learning to play in university as well, although solely rote learning is not sufficient, as was addressed earlier in this chapter.

...first generation students who have come from bottom quintile schools have often shown a lot of agency in getting to university. They haven't been spoonfed, they've had to make the best of what resources they had in their environment. And being able to engage productively with the textbook is a really good skill.

(Lesley, convenor, physics)

The research took place in a context of inequality, but the findings also reflect instances of resilience and innovation. The next section elaborates on the interesting ways in which boundaries between time and space manifested during the COVID lockdowns, and how this was entangled with issues of inequality.

8.1.3 Weakened classification during COVID

The COVID pandemic and subsequent lockdowns illuminated and exacerbated digital and other inequalities among students. It also weakened classification and blurred the boundaries between

university learning environments and home environments, as well as learning and work time, and leisure time. Students' limited and precarious access to technology and connectivity impacted pedagogic approaches and accommodations that needed to be made with deadlines and assessments. Teaching staff would often need to be available to assist students in the evenings as this is the only time some students would have access to technological equipment, data, or a quiet working space.

> *...we saw when we went online with COVID, the disparities between the haves and the have-nots...*
>
> *...the ability to use technology, the ability to access technology, so your Wi-Fi, your connectivity, you know, things like the ability to access food security had a dire impact on learning, the environment, whether you had the physical desk and chair at home, whether you had space to learn, whether there was quiet to learn, or noise, whether there was crime or violence and tensions, whether you had access to a tutor, to a parent, to a sibling, to a family member who could help you to interpret what was required from you, whether you had access to being able to print things out, your own piece of electronic equipment.*
>
> *...it placed a huge amount of stress on the providers of the content, which were your lecturers and your tutors.*
>
> *(head of department, commerce)*
>
> ***
>
> *...being disadvantaged in terms of your social background...*
>
> *...two students I had, one lived in a two-room home and there were ten of them.*
>
> *...she could not actually do work during the daytime because you would have all these domestic responsibilities... she'd have to work at night, because nighttime is a lot quieter and almost everybody is asleep.*
>
> *Even though we could say she could just set aside a little bit of quiet time, just find a quiet space. How do you find a quiet space in a two-room home with ten people? You just cannot. There is no quiet room to just escape to. It is like a luxury you just don't have.*
>
> *(educational technologist, humanities)*

As Czerniewicz et al. (2020), Pallitt et al. (2022), and Pallitt & Kramm (2022) point out, the above student's experience was not uncommon during this time, as South African students not only struggled with access to data and devices, but also had to balance their academic work with home and childcare responsibilities, lacked appropriate working spaces in their homes, and often had little autonomy over their working environments and devices. These challenges prompt a consideration of

our conceptualisation of online learning environments, not only in terms of the institution's virtual learning environment itself, but also the spaces and ways in which students access this. In Bernstein's terms, the lockdowns saw many instances of weakened classification between work, study, and home environments, and the blurring of these boundaries. Indeed, the learning environment extends beyond the physical screen. The temporality of teaching and learning is experienced differently by a range of social actors in different contexts (Bayne et al., 2020). The shift to online teaching and learning during COVID created weakly classified space and time dimensions as pedagogic practices were no longer bounded to physical lecture or classroom venues, and no longer strictly followed university timetables.

One of the humanities case study lecturers addressed the potential anxiety and embarrassment for students given the weakened classification between home and learning environments, particularly during COVID. Visual or auditory markers of class may arise in online sessions, for example, where students participate with their camera or microphone. This reflects the socially embedded nature of technology in education and how power relations or social dynamics may be reinforced (Fawns, 2022).

> *So that class factor also comes in. And that class factor also of, how do I look like when I'm at home? How does my accent sound like? Are there gonna be any background noises of maybe my family in the background? Is there gonna be a baby crying and so forth?*
>
> *(lecturer 2, humanities)*

Interestingly, Bernstein's (1990) work seems to foreshadow the issues that would arise with ERTL during the COVID pandemic and the inequalities it would exacerbate when he emphasized the importance of a suitable second site of acquisition of the academic curriculum in the home. He argued that time at home should supplement time at school but, unfortunately, this is often a privilege not available to poor students whose homes may not have suitable and quiet spaces to study, and where work and other responsibilities mean that suitable time for self-study is not available either (Bernstein, 1990). The lack of an appropriate 'official pedagogic context' in the home

and the ways in which this exacerbates inequalities (Berstein, 1990) became unmistakably evident during this complex time in South Africa.

Not only were there challenges for students given this weakened classification between home, learning, and work environments, but also for staff, particularly in terms of the additional workload they were expected to take on during COVID, including the expectation of round the clock availability. Boundaries between work and leisure time were therefore weakened during this difficult period. The teaching team commented on these challenges and the mental demands as digital inequalities faced by students would necessitate additional workload for staff. The process of redesigning courses for online environments equated to substantial additional workload for staff, especially as aspects that had conventionally been 'verbalised' in class, now needed to be explicitly captured online in text and instructional guidance. As one participant noted, 'now you are having to find the language to operationalise all of the learnings and the steps in the learning process'.

The university is a highly ranked research-intensive institution and its research function is prioritised for funding, income-generation, and rankings. This is often at the expense of the university's teaching and supervision functions, and many academic staff have not received training on teaching in higher education. Academics are placed under immense pressure to produce and engage in research, and teaching thus often becomes a secondary focus. The nurturing of academic and digital literacies were thus often seen as separate to disciplinary content and outside of their remit. During the COVID period, however, staff were asked to rapidly pivot to online and redesign much of their curriculum and pedagogy for that purpose as well as to more explicitly integrate digital literacies into their teaching. This meant additional cognitive load to engage in more complex pedagogy under already challenging circumstances not only with the pandemic (Pallitt et al., 2022), but also existing institutional challenges such as resource constraints and precarious academic contracts. Staff often felt that institutional directives were imposed on them with little opportunity to provide input – particularly difficult in an institution where academic freedom is emphasized and faculties and staff

often operate quite autonomously. This period highlighted the tricky balance between continuing the academic programme with high quality teaching while simultaneously considering feasibility. Staff did not have endless capacity to upskill both themselves and their students and innovative, yet simple solutions had to be found to keep things going.

8.1.4 The value of a blended approach

The experiences of staff and students during the COVID pandemic highlighted both the affordances and limitations of the online learning environment, particularly for these programmes. As discussed, benefits in terms of flexibility, autonomy, and engagement were noted, but there were also drawbacks experienced. One of the main drawbacks for both staff and students was the perceived lack of social connection and community online. Interestingly, some staff participants seemed to suggest that teaching as a profession could be fundamentally at odds with a purely online learning environment, and that there is some physicality that is essential for effective teaching (Aagaard et al., 2023).

> *I'm a teacher at heart, I enjoy making my presence felt in a physical space. When I teach, I walk around all the time because I think better when I'm walking. And students know when I'm walking down the aisle etc. They need to be alert, they need to be listening...*
>
> *My presence physically to impact and to motivate learners is I think something that I lose in the virtual space. I think I read students very well and I think they also get a sense of their own learning and their own progress by looking at my reactions as a teacher, you know. So, I read students' body language, I read facial expressions.*
>
> *(lecturer, social science)*
>
> ***
>
> *...the online space just doesn't have that kind of interaction.*
>
> *So, I think one of the biggest challenges was for teachers, people who look at their work as mostly teaching, to be able to bring their best onto this platform.*
>
> *(Xavier, convenor, commerce)*

As indicated above, the main concerns with a purely online approach relate to social disconnection and picking up when students are struggling or misunderstanding (Czerniewicz, Trotter & Haupt, 2019) and being able to easily address their questions. This was most pronounced during COVID and,

while both staff and students acknowledge the many affordances of the online space for their pedagogic goals, they felt that physical interaction was also crucial to teaching and learning.

> *Obviously, we are social beings and people want to interact with each other in a face-to-face manner...*
>
> *We don't get a sense of students' expressions, when things are shocking them, or an 'aha' moment. You can't see it easily online.*
>
> *(convenor 1, social science)*

***

> *But just being in your room and isolated from the rest of your classmates, you don't really know it people, ja you don't see people as much and you don't really have an interaction with your lecturer – that was really hard.*
>
> *(student 3, commerce)*

Some students felt that the social distance created online impacted their learning experiences, specifically being able to ask questions and to interact with their lecturers to reach an understanding of concepts.

> *I prefer interacting with people. I like raising my hand in class instead of like typing questions or waiting for responses.*
>
> *...I enjoy being in person and looking at you and talking, so that I could gain more clarity...*
>
> *(student 2, humanities)*

***

> *...if I needed to ask a question, I felt so awkward to type it out than to actually ask in person, because I feel like if you typing out you can't exactly elaborate on it, where in person you can have that kind of interaction between the lecturer and you, and it's like they can also understand what you saying, and not all that can be said through text.*
>
> *(student 3, humanities)*

Most of the study participants thus advocated for a blended approach, where the benefits of the different modes are combined into one integrated programme.

> *...pros and cons, and I think the thing going forward is picking the best of all those elements. I don't think we will ever go back into full face-to-face all the time teaching, because I think we have discovered we can do a lot more on this online. On the same vein, I don't think we can ever only do online studies. It's too impersonal also.*
>
> *I think the way forward is to look at picking the best of all worlds and merging that into a better pedagogic space.*

(Xavier, convenor, commerce)

As an example, the fact that the learning experience is no longer bounded solely to a physical classroom and a defined time period is positioned as an advantage:

> *So now with blended of course that's I suppose the better option because it allows us to have them, the face-to-face component, but still continue conversations online or continue ideas or threads, tutors can share things, you know afterthoughts of discussions in the online space.*
>
> *(lecturer 1, humanities)*

The participants also noted certain disciplinary literacies that require in-person engagement, such as clinical intake or counselling skills in the health sciences, or dance and drama in the arts, or vocational aspects in some regions.

Several participants noted the value associated with the reconceptualisation and redesign of course content and assessments necessitated by a shift to online learning during COVID. As much of the academic literacies theory highlights, enabling epistemological access to powerful disciplinary knowledge for students requires the explication of many of the unspoken assumptions and expectations - the 'hidden curriculum' - of various disciplines. The emergency shift to remote teaching and learning, and the necessity of redesigning courses for online and blended learning environments, provided a unique opportunity to interrogate many of these unspoken assumptions and expectations – enabled by the process of redesign itself, but also the extra pairs of eyes of learning designers, educational technologists, academic development experts, and others involved in what was typically an individual process in the past (Czerniewicz et al., 2020). This can allow for a more sophisticated understanding of the powerful knowledge within various disciplines and how to enable epistemological access to that knowledge, as reflected in the disciplinary case studies. Participants noted the value of rethinking assessment given the challenges with proctoring at this time. Staff had to look to formats other than the traditional invigilated exam which has historically been the main form of summative assessment at the institution. Many staff members had long acknowledged the exam not being the most pedagogically sound form of assessment, and this time

gave them the opportunity to discuss and reconsider assessment methods and a culture of assessment that was less punitive and more student-centred and inclusive.

8.2 Diversity of perceptions and approaches to ECPs

The following sections discuss general themes from the data around the perceptions and approaches to extended curriculum programmes at the university and in South African higher education more broadly.

8.2.1 Stigma and misconceptions

This study highlighted instances of stigma and misconceptions associated with extended curriculum programmes from both staff and students. This reflects a deficit discourse that still prevails in some parts of the institution. Many academics perceive the development of academic and digital literacies as beyond the scope of their curricula and pedagogy. Some see these as deficits with the students that need to be 'fixed' elsewhere before they enter the classroom – academic development units are often considered to be the 'elsewhere' in question. Students in the study commented on how the valuable academic and social support they receive on these programmes is lacking in other 'mainstream' courses.

Staff were of the view that students on these programmess often internalise some of this stigma and feel that they are being positioned as deficient in some way.

> *…there is still a negative feelings about EDU from some of the students. Some there is some resistance, because they see it as othering.*
>
> *That there's this other programme and it is for students who don't... maybe are not clever enough, or maybe don't come from, you know, the right background, etc. which is absolutely and completely false. And we have heard people referring to this as a remedial programme which is... it's crazy. It makes my blood boil. Because it's not that at all. And so, there's an absolute misunderstanding as to what the education development unit provides and the success that is linked to it as well.*
>
> *(head of department, commerce)*
>
> ***
>
> *Students identities as successful students, which has what has gotten them to this point, they've actually survived difficult life situations by identifying as a successful student and using their school work as a place to find themselves, and then they come and we assign them the identity of struggling students, and so their agency, because identity as a useful tool for mediating agency, their agency is undermined. And so having been highly resilient and agentic in getting to [university], they now feel a little bit powerless.*

(Lesley, convenor, physics)

***

There is stigma, a huge, huge stigma.

...the understanding that you are doing ED, it means you lacked somewhere, so you are in the course because you lack, right?

(lecturer 2, humanities)

One of the humanities lecturers reflected on the seemingly innocuous ways in which stigma can arise and be addressed. She described how in the past the tutorial sessions on the mainstream courses were set up as double periods in which both mainstream and ECP students would attend together and the mainstream students would be able to leave after the first half session, and ECP students would be required to stay on for the remaining session. The lecturer described how students would share with her that the experience was humiliating and belittling. They have now decided to separate out the tutorials for mainstream and ECP students and, while this may be othering in its own way, it is preferable for the ECP students than the previous arrangement in her view. There have also been efforts in the faculty to change the terminology used to refer to the different programmes – rather than referring to them as mainstream or extended, they are now encouraging people to refer to them as three- or four-year programmes.

While the academic and social support was positively perceived by students, the academic staff on these programmes share the view that they have had to put in a great deal of effort to have their work recognised, to allay the stigma associated with these programmes, and yet often feel that they still occupy marginalised positions in their faculties. They attribute this in part to perceptions of faculty staff that the academic development function is separate to the main academic project and that it is bridging or remedial work to prepare students for mainstream study. Again, many academics do not consider academic development work part of their remit.

One of the participants who works in the institution's centre for teaching and learning, focussing on online and blended educational support, made an interesting connection between academics' approaches to academic development and online teaching and learning. They described how those

academics who had always been resistant to taking on academic development work on their courses were often the same academics who resisted adapting their courses to an online learning environment when COVID necessitated the closure of the physical university space. In the law faculty one lecturer told students that their course was now the textbook. When students complained, they were met with sarcasm.

While the university did provide academic staff with extensive support during this time for online learning, the siloed, fragmented, and autonomous institutional culture meant that this was the first time many of these academics had opened their courses up to eyes other than those of their students. This experience can result in academic staff feeling vulnerable and exposed, thus the resistance to it. With poor communication and collaboration in many faculties and departments, it is very common for colleagues to work on the same programme for years and have no idea what or how their colleagues are teaching. Junior academic staff are often left with no guidance, support, or managerial oversight in their first expeditions into teaching.

8.2.2 Mainstream interest and advocacy

Students did at times describe experiencing initial disappointment or stigma at enrolling in the extended programmes but, with time, came to appreciate the programmes and the flexibility and slower pace they enabled, the smaller class sizes, and the additional staff support and individualised attention. Students described how the more manageable pace allowed them to actually enjoy their degrees and fully absorb the content and lessons, rather than just trying to pass, and how the programmes provided a strong 'foundation' for their academic progress.

> *I'm happy with the way my degree is now structured, even though it's not what I wanted...*
> *...it gives me more time now to learn out of passion, not desperation that I wanna pass.*
> *Cause sometimes learning out of desperation can kill you...*
> *(student 4, commerce)*
>
> ***
>
> *I wouldn't say I was over the moon about having to take [this course], because I didn't think I needed it, but I'm also not complaining as well, because now that I'm here it's like this is*

actually really difficult. And it's sometimes, you need to put your pride aside and just take the gift, right.

(student 6, humanities)

***

...the four year programme gives you time to breathe...

The reason why I'm doing so well is because my degree is like stretched out and there's enough time to plan everything.

(student 4, humanities)

Flexibility in pace is an important aspect in supporting epistemological access for educationally marginalised students as discussed previously.

In some cases, mainstream students felt shortchanged that they were not receiving the same extent of academic and social support provided to the ECP students, and some showed interest in switching over, or (in the case of the humanities faculty), attending the additional tutorials.

So, I've noticed that some people that haven't been in the [ECPs] in the first semester are like struggling a bit more, or they're like being confused, or why didn't we get this first semester, why didn't we get this type of support.

Like if you look at the three-year degree students, they aren't getting that social support, that mentorship.

(student 2, humanities)

***

...mainstream students moving into our programme. We've had a few this semester, who've moved into the programme, and also people who now completed like I wish I had done this, my friend is on EDU programme and she tells me she's experienced these things. So, there is that unfortunate ignorance, but you also find that it sorts itself out (laughs).

(facilitator, commerce)

In some cases, students in this study even took on the role of advocates for the ECPs.

...I feel better, my marks has gone up and everything. So, I recommend it to anyone. People must come to this one because you won't get stressed a lot of time. Everything is here. Every material is here. The lecturers are here and available for you, so people must come to this side. If they get stressed on the other side, they must come to this side. They will find their way here.

(Nemhara, student, physics)

***

I really wish that everyone, like the entire university, could like experience [this course], and not just for the four-year degree...

It's compulsory for a four-year degree student, but like the [additional] support, it's beneficial to everyone, not just us who like need the help, or need that extra support, but for every individual.

(student 2, humanities)

This in line with the findings of Ogude, Meyer, Mwambakana & Mthethwa (2019) who also noted the initial feelings of disappointment followed by recognition of the value of the programmes and the ways in which students are often better equipped than mainstream counterparts, leading to advocacy in some cases.

8.2.3 Academic development in the mainstream and different approaches

In line with the literature (Lubbe, 2017; van Schalkwyk, 2007; Shay, Wolff & Clarence-Fincham, 2016a; Eybers, 2015; Case, Marshall & Grayson, 2013), most of the staff interviewed felt that academic development support should be integrated into mainstream curricula and pedagogy, but there was some disagreement regarding how this should be done and whether the ECPs should remain in their current form. Many held the view that degree programmes should be extended by an additional year across the board with the option for students to increase their pace if desired, particularly because most South African students experience educational disadvantages and do not complete their degrees in regulation time in any case (Ashwin & Case, 2020). The use of online learning may enable some flexibility in pace of progression in that regard, either utilising the additional time or accelerating after the difficult first year transition.

...about 80% of those students will actually require additional support, additional language support, if they are to succeed because the NBT reports are telling us that students are not ready to meet the demands of university, so in that sense a flexible curriculum or a four-year programme as a norm could actually be quite appealing, and yet I think that the key word there is flexibility. So, if some students prefer or manage to do it sooner or quicker, or decide to pack three majors into their degree, they can still have the freedom to do that.

(convenor 2, social science)

***

I think that there is a lot of support in that the departments of the courses are really grateful to have [this] space. I think they like it and support it. We have great communication. I think

the deficit sometimes comes in when they kind of have this thing that oh that's something the [ECP] can solve. Like go to the [ECP] people (laughs).

Instead of actually maybe investing in our spaces. So, at the moment it's still very much run by us financially. We do all the resourcing. But it's something that I think it should really be re-transformed in the long run… something that the departments could take on, not just financially but actually embedded.

I think all students can benefit from what we offer...

So having things like, how do we write in history, how do we write in sociology, actually built into the course itself and not just being this extra thing...

(lecturer 1, humanities)

The above reflects the importance of collaboration between academic development and disciplinary experts in curriculum and pedagogy (Boughey, 2005). One participant noted how making this additional year the standard rather than separating mainstream and extended programmes could reduce the deficit discourse, othering, and stigma in many cases. Luckett & Shay (2020) argue that a genuinely transformative approach to curriculum restructuring would take an extended and flexible degree structure as the norm rather than positioning ECPs as an add-on to the established 3-year bachelor's degree structure which is unsuitable for the majority of South African students coming out of public schooling.

Indeed, the entrance requirements for ECPs and mainstream programmes differ only marginally and often students on the ECPs qualify for mainstream entrance but may be advised or choose to join the ECP, or it may be a requirement of their funding. As a testament to the ECP staff's work, students' results on the ECPs are often on par or exceeding the results of mainstream students. This has positively contributed to their efforts to receive greater recognition in their faculties.

...where the change started to come, and where EDU has become central, and where mainstream and the commerce faculty is looking to EDU for guidance and advice on things, is that our results, particularly at the first year level, were either neck-on-neck, or outperforming mainstream, which showed that, hang on a moment, we have students who are disadvantaged, maybe in schooling and socioeconomic ways, and language...

And they were outperforming students who were hugely and highly privileged and should have been doing better at university. And so, it really is that extra support, the staff, the way we teach, and this community of learning.

(head of EDU department, commerce)

Interestingly, these positive results may leave faculty staff feeling threatened. One of the academic participants described an incident in which one of their ECP students achieved the top mark in a mainstream course and the convenor requested the exam to be remarked, which fell outside of the standard process. Rather than receiving recognition for the time and effort put into supporting this student to succeed, the staff member ended up feeling hurt and sidelined.

The advocacy work that staff have been engaged in appears to be fruitful and shortly after the completion of the fieldwork it was announced that the mentorship aspect of the commerce programme would be offered to mainstream students in the faculty as well. Similarly, in the humanities faculty, several of the first-year courses were recently redesigned to embed more pedagogical support, thus doing away with the need for additional tutorials as the additional academic support has been embedded in the course for the benefit of all students, not just those on the extended programme. This approach of embedding academic literacies and academic development into mainstream disciplinary teaching and learning is one supported in the literature (Wingate, 2006; Durkin & Main, 2002; Ellery, 2017b). While ECPs generally provide important support, particularly to first year students with the difficult transition from school to university, performance in the latter years of the degrees and completion rates are still concerning and indicate that this support would be helpful across degrees (Luckett & Shay, 2020).

It is also interesting to note how faculties' approaches to academic development work and ECPs impact stigma in these spaces. Given the siloed nature of the institution, and the strong emphasis on autonomy and academic freedom, faculties often take vastly different approaches to academic development. One participant noted, for example, significant stigma in the law faculty where ECPs were recently discontinued and the general attitude to academic development work from staff is negative. On the other hand, in faculties like commerce where this work is becoming more central to and valued in mainstream operations, stigma is dissipating, and some students are even applying directly for the ECPs when they qualify with mainstream points.

On a national level, the department of higher education and training has noted the importance role of ECPs in addressing widening participation and educational inequalities. Funding is provided to universities in this vein. Official communication from this university also positions these programmes in a positive light, e.g. in messaging to students which emphasizes the academic and social support, and even links completion of these programmes with stronger academic transcripts and an increased chance of getting admitted into postgraduate studies. Given the fragmented institutional culture described above, however, how these programmes are positioned in practice can differ significantly from national and institutional rhetoric. While the institutional culture enables certain benefits for staff in the academic freedom fostered, this can also result in contradictory positions regarding academic development work – a potential breeding ground for stigma.

The humanities convenor pointed to the value of flexibility in pacing on these programmes, but explained that in addition to pacing, their pedagogic approaches (focussing on translanguaging, decolonial emphases, academic and digital literacy support) are also beneficial for all students and reflect the contemporary concerns of these disciplines. The convenor raised one of the impediments that academic staff currently face in implementing this more flexible approach to programme design relating to government funding which allocates provision of the foundation grant only to students from 'previously disadvantaged groups'.

The convenor of the physics course, on the other hand, did not feel it necessary to extend the degree programmes by an additional year, but rather to add more time to the current academic year through lengthened terms and reduce vacation time for all students.

> *We have these incredibly short semesters at [university], shorter than other institutions...*
>
> *You can get that extra time just by making better use of the year. Now that doesn't mean more teaching, but it does mean spreading the teaching out a little bit more and giving students more time to consolidate before exams.*
>
> *(Lesley, convenor, physics)*

One of the lecturers on the humanities course acknowledged the importance of the foundational support of the programme and the additional time in the first year when students make this

transition from school to university. She did, however, feel that most students do not need the additional year and having this additional time could create laziness among students.

> *They do have enough time, but it goes back to what we were speaking about yesterday that ED, because it's so spread out, some people become so lazy, because of they have so much time to their hands.*
>
> *(lecturer 2, humanities)*

For this reason, she encourages her students to start picking up additional courses in the second and third year in order to complete the degree in three years but, if they do want to take the full four years, she then encourages them to use the time strategically by picking up an additional major for their degree.

There is an acknowledgement across the board that academic development work is incredibly valuable and all students would benefit from its further integration into mainstream curricula and pedagogy, although the exact form of that support is up for debate. As these conversations continue, it is important to acknowledge the nuances of disciplinary knowledge and their potential impacts on programme design. Shay, Wolff & Clarence-Fincham (2016b) argue that disciplinary considerations are crucial in the design of different extended curriculum programmes and should shape how additional programme time is used. In humanities, for example, additional programme time may be dedicated to discipline-related academic practices, such as reading and writing, whereas in science, on the other hand, this additional time could be reserved for strengthening conceptual foundations that are vital in progressing in strongly sequenced disciplines (Shay, Wolff & Clarence-Fincham, 2016b). The case study chapters reflect these disciplinary considerations in ECP courses.

Chapter 9: Discussion

This chapter begins with an overview of how the study was approached and the research questions addressed. Each of the four sub-questions are answered in turn in relation to the case study findings. The main research question is then discussed. The discussion further describes how the concept of epistemological access was iterated upon in this thesis and the important considerations for supporting students' epistemological access in a contemporary South African higher education context are elucidated.

9.1 Discussion Overview

Recent years have illuminated the complex role of technology in education. From the rapid shift to emergency remote teaching and learning during COVID lockdowns, to more intentional and considered blended learning design as restrictions eased, to the current increasing focus on AI in teaching and learning and the contentious conversations around it, we cannot dismiss how our engagements with powerful knowledge are fundamentally shaped by a social context in which technology features prominently.

These issues are acute in a South African higher education context where the highly-anticipated role of technology in improving inclusivity and addressing inequalities through more flexible delivery has been contemplated for over 20 years (Ng'ambi et al., 2016; Jaffer, Ng'ambi & Czerniewicz, 2007). Student protests and campus shutdowns in 2015 and 2016, and COVID lockdowns from 2020-2022 shifted the conversations around technology from contemplation to necessity. Technology now plays a central role in SA HE and warrants in-depth investigation.

The primary concern of the thesis is not with formal access to higher education for young South Africans, which has improved greatly in recent years, but with epistemological access – access to powerful disciplinary knowledge that empowers students at university and beyond – that remains a pressing challenge. The concept of epistemological access is often taken as self-evident and is hardly interrogated (Muller, 2014). Through this work I explore the nature of epistemological access in the digitally-mediated spaces that now feature prominently in SA HE. Further, I iterate on the concept itself, demonstrating how the study findings enrich our understanding of epistemological access in this contemporary context in section 9.6.

The thesis took a sociological approach (specifically drawing on the sociology of education) to explore teaching and learning in online and blended learning environments and the implications for students' epistemological access. Students and teaching staff were the main social actors in the study and the pedagogic practices in which they engage were positioned fundamentally as social practices.

The learning environments in which these practices took place were blended for the most part (and in one case study fully online) and were characterised by different features, tools, and other contextual factors. By taking a sociological approach I did not consider the environments and their features to be inherently positive or negative, but rather I sought to understand how these environments are perceived as constraining and enabling by the social actors based on their pedagogic goals. Technology use in education is often constrained or inequitable and the complex social factors that impact this use need to be considered (Selwyn, 2010), particularly in a context like South Africa where digital inequalities are prevalent but manifest in unique and nuanced ways. While social actors may engage in pedagogic practices for a multitude of aims or goals, the goal that I focussed on in this study is that of epistemological access to powerful disciplinary knowledge.

Answering the main research question of the thesis (*How do pedagogic practices in online and blended learning environments in South African higher education impact students' epistemological access?*) requires addressing a number of sub-questions first in relation to the case study data. These sub-questions are noted here and further examined in this chapter. As the thesis is concerned with how students' epistemological access to powerful knowledge is shaped, we require an interrogation of what powerful knowledge actually *is* in these case studies. There were various ways in which the study sought to understand the nature of powerful knowledge in each discipline, via literature on disciplinary knowledge, perusing the course content, and discussing this with students. The most influential source in this regard was, however, the teaching staff on the courses. Because their teaching was directed towards supporting students' epistemological access, it was crucial to understand what they believed they were giving access to, hence sub-question 1 (*How are epistemologically powerful forms of knowledge understood in the case study disciplines in this study?*). The data from the study pointed to the nature of powerful knowledge as continuously in flux, debated, and oftentimes contradictory. The study also explored the difficulties teaching staff experience in aiming to challenge the knowledge that is currently considered powerful at the

institution, while simultaneously meeting their obligation to support students in engaging with the knowledge that will impact their success at the institution.

To better understand the ways in which pedagogic practices impact students' epistemological access I mapped out pedagogic modalities using Bernstein's framing and classification for each of the four case studies (Bernstein, 2000). The purpose was to explore what pedagogy was actually *doing* in relation to students' engagement with powerful knowledge, thus addressing sub-question 2 (*In which ways do the current blended and online pedagogic practices in these case studies support or hinder students' engagement with powerful knowledge?*). In most instances the careful and considered pedagogic practices were enabling for students' engagement with powerful knowledge but there were aspects experienced as hindering by students, which will be discussed in more depth in this chapter.

To gain a comprehensive view of these pedagogic practices required understanding the learning environments in which they took place and how the features of the learning environments are experienced as affordances or limitations depending on the staff or students' pedagogic goals. In other words, how do the actors use the tools and features of the learning environment that are available to them (which are oftentimes constrained in various ways) to shape their pedagogic practices, thus addressing sub-question 3 (*What are the affordances and limitations of online and blended learning environments in supporting or hindering epistemological access in these case studies?*).

It is important to note that while framing and classification were useful analytical tools for mapping out pedagogic modalities in the case studies, it quickly became evident that these concepts – particularly framing – needed to be adapted to fully capture the nuances of online and blended learning environments specifically. As the data indicates, the online space allowed students' more autonomy and control over their learning. Greater student control equates to weaker framing. Teaching staff did recognise, however, the importance of sufficiently scaffolding this more

independent learning through explicit guidance, particularly for first year students. Explicitness regarding pedagogic aspects equates to stronger framing. Through this data one can thus observe an interesting tension in which there are moves to both strengthen and weaken aspects of framing simultaneously in pursuit of similar aims.

The data thus indicates that both these dimensions of framing are important in understanding and analysing online and blended learning environments – namely, 1) control over the pedagogic practices (teacher or student), and 2) whether these pedagogic practices are made explicit or left implicit. Both dimensions need to be considered separately. Most studies which draw on Bernstein's concepts of framing conflate the two dimensions in their coding frames or focus on the first dimension (control) in their analysis, often only bringing in the second dimension (explicit/implicit) when analysing evaluative criteria (Ensor, 2004b; Wheelahan & Moodie, 2021; Hoadley, 2006; 2007; Morais, 2002; Morais & Neves, 2017; Luckett, 2012). Bernstein (1990; 2000) does, however, acknowledge the importance of that second dimension in generating modalities of pedagogic practice and applies it not only to evaluative criteria, but also to sequence, pacing, and hierarchical rules. In the case of sequence and pacing, for example, an explicit pedagogy is one in which the pace and sequence of progression is made explicit to students, e.g. via defined milestones (Bernstein, 1990). An implicit pedagogy, on the other hand, is one in which the expectations of progression are known only to the teacher and are not made explicit to the students (Bernstein, 1990). The explicit or implicit nature of these pedagogic practices thus refers to the visibility of the lecturer's intention as to what is to be acquired by the student (Bernstein, 2000). Bernstein (1990; 2000) used these concepts in explicating his theories of visible and invisible pedagogies and their implications for educational inequalities. In this way, I contribute to the body of Bernsteinian empirical work and offer an external language of description that could be useful to other researchers working in online and blended learning environments.

While the thesis does not adapt the concept of classification itself, it does offer a unique application of the concept to understanding the weakened boundaries in space and time dimensions of the university, particularly during the COVID lockdowns. Classification was used in this study to explore the implications of the COVID lockdowns on both student inequalities and staff challenges related to overworking, boundaries, and so on.

A significant aspect of supporting students' epistemological access in online and blended learning environments is understanding the digital inequalities they face that impact their learning in those spaces, hence sub-question 4 (*What are the digital inequalities faced by students that impact their participation in online and blended pedagogic practices?*). Indeed, in many instances from the data teaching staff handled these aspects with a great deal of care and consideration. In some instances, I argue that there was not sufficient recognition of the extent to which these digital inequalities can act as a barrier to student learning and epistemological access. Based on the data, this study offers a broader conceptualisation of the unique manifestations of digital inequality in the South African context, which is expanded on below.

This study is situated primarily at the level of micro-processes of pedagogy in four first-year ECP courses. The macro-context of the study is widening participation in South African higher education through a social justice lens. The academic development field implements various strategies to address the macro-level challenge of widening participation in South African HE - one of the key strategies being extended curriculum programmes. The data from this study includes perspectives from both staff and students on the role and value of these programmes and academic development work more broadly.

9.2 Sub-question 1: How are epistemologically powerful forms of knowledge understood in the case study disciplines in this study?

The data indicated tensions around the concept of powerful knowledge in the disciplines and the broader institution. The case studies illuminate the often idealistic and aspirational ways in which teaching staff describe their pedagogy which at times contrasts the realities of the pedagogy in practice. This demonstrates the difficulties in challenging what knowledge is considered powerful, while simultaneously supporting students' access to knowledge that is empowering according to the current status quo.

In the social science case study, for example, the teaching team were committed to the principle of 'don't leave yourself at the door' when it comes to student knowledge and experiences. Students are encouraged to draw on their own knowledge and experiences in the blogs and live classes, for example. The findings indicated that this approach contributed to students' enjoyment of and engagement with the course, as well as their sense of inclusion. Pedagogically, it was also used as an access point to conventional academic writing. It did not, however, fundamentally challenge the kinds of knowledge and expression valued at the institution. Similarly, in the humanities case study, the translanguaging pedagogy was valued by students and staff as something unique, interesting, inclusive, and validating, but it did not fundamentally disrupt the dominance of English at the institution. In the physics case study, the teaching team made a concerted effort to draw attention to indigenous knowledges that have been marginalised in science disciplines, but the content of the course was still taught primarily via more traditional, established Western scientific theory.

The classroom can be a radical and liberatory space in which the resources that students bring from their own lives are valued, dominant narratives are resisted, and meaningful connections are made between academic knowledge and the everyday (hooks, 1994). The findings reflect these aspirations, but also the challenges – particularly the contradictory spaces in which academics find themselves. A tension emerges between the idealism of a decolonial institutional culture in which a diversity of ontologies and epistemologies can be equally valued, and the realities of preparing students to

succeed in an institutional setting where powerful knowledge is quite narrowly defined (Hoadley & Galant, 2019; Luckett & Shay, 2020; Badat, 2010).

Worth noting is that these academics often use these courses as research sites to reflect on pedagogical approaches and academic development and, in turn, this research can inform their pedagogy. These academics often positioned themselves first and foremost as 'teachers' and often used their teaching sites to experiment with research-informed approaches to pedagogy and to collect data. While the research context may allow more space for visionary work on an idealistic institutional setting, the teaching context often calls for a more pragmatic approach in which academic staff must navigate the reality of the spaces in which they are working. Thus, academic staff may face a tension in their work between research and teaching needs at the institution.

The sub-question does require a consideration of the nature of powerful knowledge, particularly Bernstein's (2000) work on vertical discourse vs. horizontal discourse which is often depicted in binary terms with academic (vertical) knowledge being positioned as powerful and superior, and everyday, contextual knowledge as inferior (Wheelahan, 2007; Muller & Young, 2014; Barrett & McPhail, 2023). As discussed in the literature review, there are arguments that the power of theoretical knowledge is realised in its application to real world problems (Wheelahan, 2010; 2023; McLean, Abbas & Ashwin, 2013a; 2013b; 2015; 2017; Young, 2008; Shay, 2013). There are currently ongoing debates, such as those stemming from the Fallist movements, which interrogate the nature of powerful knowledge in the South African context and who should decide on its definition. These debates also extend to the place of indigenous knowledges, currently marginalised in many institutions, particularly as these types of knowledge often fit the description of horizontal discourse – i.e. tied to local contexts and expressed via a variety of forms outside academia (Smith, 1999; Hall & Tandon, 2017; Tuck & Yang, 2012; Hoadley & Galant, 2019; Luckett & Shay, 2020).

These debates found particular application in the social science case study, which encouraged students to draw on their local contexts and everyday knowledge (weakening classification), and to

engage with forms of expression other than the traditional academic essay, such as blogging. It is thus argued that the course was informed by a decolonial approach, featuring many of the characteristics of indigenous knowledges discussed above and in the literature review, and offering alternatives to Western academic traditions. The ways in which these decolonial approaches were drawn on, however, were generally confined to formative development and scaffolding, with students still working towards the traditional academic essay, which was the format of the course's summative assessments.

In the social science case study, the live classes began with students being prompted to share their personal opinions and experiences of a topic in general, everyday terms. As the live class progressed, the teaching team abstracted those experiences into the level of theory and introduced specialist disciplinary terms to describe those experiences and opinions in relation to disciplinary knowledge. In other words, the lesson began with stronger SG and weaker SD, and progressed to weaker SG and stronger SD (Maton, 2013). Horizontal discourse was thus used to scaffold students' access to vertical discourse (Bernstein, 1999; Barrett & McPhail, 2023) as students' own knowledge and experiences were used as an entry point into the valued literacies of the academic disciplines.

This positioning does, however, still attribute the main value of horizontal discourse to its ability to assist in scaffolding students' access to vertical discourse. Decolonial approaches may be used in selection of content or discussion, but evaluative criteria determine what counts as valid mastery of the discipline and its powerful knowledge (Hoadley & Galant, 2019). As one of the participants remarked, 'assessment is the de facto curriculum'. Assessments communicate academic expectations (McLean, Abbas, & Ashwin, 2013a), and indicate the literacies that are viewed as most valuable. Bernstein (1990) argues that the essence of teaching relationships is the evaluation of the competence of the acquirer. Examples from the case studies reflect various engagements with decolonial work in course content, but summative evaluative criteria usually reflected more traditional and well-established academic features.

Given the emphasis on large summative assessments at the institutional level, such as invigilated written exams, students' 'performance' as valid disciplinary knowers and thus their epistemological access was often mediated through these large assessments. In addition to the importance of constructive alignment between learning outcomes, teaching and learning activities, and assessments (Biggs, 1996), it is also useful to consider the alignment of mode and genre across teaching and assessment (Ferreira & Mendelowitz, 2009). Epistemological access involves not only the engagement with powerful disciplinary knowledge, but also the ability to 'perform' one's understanding of that knowledge (Biggs, 1996) in the forms expected by the discipline. In the social science case study, for example, the forms of writing encouraged in the blogs were not aligned to the forms of writing expected in the academic essays, and students struggled with this transition. However, given the explicit teaching approach adopted by staff which articulated academic literacies and emphasized metacognition in relation to these literacies, students were able to *recognise*, and in many cases *realise* the expectations of the course and other disciplines in the institution. Students were thus able to engage in a space where their voices and experiences were valued and where they could experiment with academic practices that challenged entrenched norms, but also sufficiently prepare for other spaces in the institution where this was not the case. This equipped them with necessary recognition and realisation rules (Bernstein, 2000), and supported their epistemological access across various disciplines.

Interestingly, the academic freedom policy of the university warns against 'epistemic injustice' and the marginalisation of less established forms of knowledge and knowledge production, arguing for 'epistemic freedom' and knowledge production that reflects 'particular local situations and lived experiences'. Even with the best intentions, this ideal appeared difficult to achieve in practice in the study data, especially when balancing this with the need to adequately prepare students for entry into the existing disciplinary communities of the institution. This points to another gap in constructive alignment in terms of ideology and discourse at the teaching and assessment levels (Ferreira & Mendelowitz, 2009). The values and ideologies espoused in the classroom are often not

reflected in the summative assessments of the university (Ferreira & Mendelowitz, 2009). Again, the intentions to transform powerful knowledge and how it is expressed at the institution are at odds with the realities of supporting students' epistemological access in a context where traditional Western academic knowledge largely still dominates. The above discussion also illuminates an incommensurability between our current understanding of powerful academic knowledge and the ways in which some indigenous knowledges are described in the literature.

Because knowledge is socially produced it will always be fallible and will always be a work in progress reflecting the complex social contexts of its production and use (Wheelahan, 2010; 2023; Lotz-Sisitka, 2009; Young, 2013). In the current context of calls for decolonisation of universities (Swartz et al., 2018), one may wonder – how can we support students in their access to powerful knowledge while simultaneously challenging what qualifies as powerful knowledge? Wheelahan (2010) argues that these two aims, rather than being at odds, can be complementary. Equitable access to knowledge means that voices that have traditionally been marginalised in the academy can contribute to shaping the nature of knowledge as a work in progress, including conversations around how other ways of knowing are valued in the university (Wheelahan, 2010; 2023).

> *Induction into the disciplinary structures of knowledge is important even if we wish to overturn elements of those structures, because understanding those structures is a necessary condition for revolutionizing them.*
>
> *(Wheelahan, 2010: 78)*

So, even though what 'powerful knowledge' actually *is* will always be in flux, it is important to get more people seats at the table to discuss how this knowledge should evolve and change, and this should be done equitably and inclusively. These conversations may also include challenges to the idea that horizontal discourse is placed in an inferior position to vertical discourse. While in practice the pedagogies of the case studies may not have fully met the transformative aspirations to challenge powerful knowledge at the institution, they still demonstrated value in opening up these conversations and supporting students to be part of them.

Indeed, the idea of getting more people seats at the table is a key concern of this thesis. In the context of South African higher education, the majority of young South Africans have been excluded both from access to powerful knowledge (and the participation in social, economic, political and other realms that this affords), as well as from conversations of what powerful knowledge ought to be. The findings presented in this thesis illustrate pedagogic practices in online and blended learning environments in a contemporary South African university setting that enable and hinder students' induction into disciplinary communities and their construction of valid disciplinary identities in various ways. A common theme across the case studies is the idea of challenging institutional norms and current understandings of powerful knowledge and, while these intentions were not always fully realised in practice, students were exposed to these ideas and were encouraged to engage with them. Thus, while Wheelahan (2010:78) stresses the importance of 'induction into the disciplinary structures of knowledge', this thesis overtly addresses *how* that induction takes place in online and blended learning environments and addresses both the affordances and limitations in that regard.

Findings from the case studies also challenge Maton's (2014) notion of humanities disciplines as hierarchical knower structures where social relations are paramount with knowers having to demonstrate the right kind of 'gaze'; and science disciplines as horizontal knower structures which are informed solely by epistemic relations and thus meritocracy. In fact, I argue that the physics case study displayed the most explicit and developed portrayal of a disciplinary knower and their characteristics. The strong emphasis on the social relation, in addition to the epistemic relation, was evident in the course content and in various insights from participants. The performative aspects of disciplinary knowledge and the adoption of an appropriate disciplinary 'gaze' are often just as important to epistemological access as the disciplinary content knowledge itself (McLean, Abbas & Ashwin, 2013a; 2013b; 2015; 2017). Many science courses legitimate a knowledge code explicitly and a knower code implicitly, although both are necessary for epistemological access and thus should be made explicit (Ellery, 2021). In the humanities and social science case studies, there was an acknowledgement of the social relations and covert capitals that have historically dominated these

disciplines and perpetuated inequality and exclusion. Staff in these case studies sought not only to elucidate the epistemic relations but also to challenge the existing social relations and the narrow conception of legitimate disciplinary knowers.

This study thus emphasizes both the social and epistemic relations of powerful knowledge and argues that it is important to explore both facets in relation to any discipline. The nature of the discipline (e.g. humanities vs. STEM) does not limit powerful knowledge to either social or epistemic relations. We know, for example, that regardless of competency in scientific concepts, students' social and educational backgrounds can still hinder their epistemological access to science disciplines (Liccardo et al., 2015). The consideration of both epistemic and social relations present in this thesis is vital in understanding the full scope of students' epistemological access.

9.3 Sub-question 2: In which ways do the current blended and online pedagogic practices in these case studies support or hinder students' engagement with powerful knowledge?

Pedagogic modalities were mapped out for each of the four case studies to illustrate the ways in which pedagogic practices supported or hindered students' engagement with powerful knowledge. It was found that there was no one ideal when it comes to pedagogic modalities but rather a mixed pedagogic approach was present in each case, informed by the discipline, its knowledge, the students and their needs, and other contextual factors, in line with other empirical Bernsteinian studies (Ellery, 2017a; Morais & Neves, 2017; Morais, 2002; Aploon-Zokufa, 2013; Hoadley & Muller, 2010; Hoadley, 2006; Scott, Yeld, & Hendry, 2007; Arasaratnam-Smith & Northcote, 2017; Gamble & Hoadley, 2011).

The importance of disciplinary considerations was evident when looking at cross-case comparisons between the aspects of framing and classification in each case study. Certain concepts in physics and commerce, for example, required strong framing over pace, and specifically required immediacy, responsiveness, and synchronous engagement. In the physics whiteboard sessions, for example, teaching staff milled around, responding to student questions, checking in on students to see if they were getting stuck and addressing any obstacles. Teaching staff would often call students' attention to a whiteboard and go through an equation step-by-step, pausing at each step to check whether students were following, using nodding, eye contact, hand gestures, and other expressions. Teaching staff thus aimed to strengthen framing over pace and instil responsiveness, immediacy, synchronous engagement and physicality into their teaching as they perceived this as important in supporting epistemological access. The findings from the commerce case study reflect the dimensions of pace most pertinent to conversations about pedagogy in commerce disciplines. Like the physics case study, academic staff highlighted the importance of responsiveness and immediacy in teaching in commerce disciplines, like accounting, as well as peer-to-peer learning, which they felt were best

suited to synchronous contact learning environments. This pacing was necessary to provide immediate clarifications of equations, for example, as well as quick-fire questions and answers.

In the humanities and social science case studies, on the other hand, many of the concepts and literacies were better suited to weaker framing over pace and 'time for reasoned response' (Arasaratnam-Smith & Northcote, 2017). In fact, the stronger framing over pace and synchronous engagement in the social science live classes, for example, were experienced by many students as excluding, and hindered their epistemological access. Students described finding it difficult to keep up with the discussion, feeling that the points they wanted to raise had already been mentioned, and thus sometimes felt discouraged from participating. This experience was compounded by technical obstacles in some cases, such as students struggling with typing as the means of engagement in the classes. The findings suggest that both case studies could benefit from the opportunities for interaction via asynchronous online discussion forums (Czerniewicz et al., 2020; Jaffer, Ng'ambi & Czerniewicz, 2007), and that the concepts and literacies of these disciplines are well-suited to adequate time for reflection, research, and considered responses (Arasaratnam-Smith & Northcote, 2017; De Wever et al., 2006).

These findings demonstrate how an aspect like pace does not necessarily have one ideal manifestation but needs to be tailored and enacted differently depending on the discipline and its features. The concept of 'pace' itself is multifaceted and thus it useful to consider various dimensions of pace, including responsiveness, immediacy, and synchronous vs. asynchronous engagement to fully understand how pace is enacted across different blended learning environments. The findings also illustrate the ways in which teaching teams drew on both technological and in-person aspects in their learning environments to shape pedagogy.

There were noticeable differences in evaluative criteria across the case studies. In the social science case study, for example, the teaching team wanted to foster writer development and allow students the space and freedom to create their own authorial voice via their 'just write' approach of

weakened framing over evaluative criteria. The online space provided a low stakes, experimental environment in which to engage in these practices. While there was a strong rationale for their approach based on their pedagogic aims, some students found the transition from the informal online blog writing space to the formal academic essay space as an acutely difficult one and there may have been more scaffolding required in this regard (Ferreira & Mendelowitz, 2009), particularly so early on in their academic journeys. In the humanities case study, on the other hand, the teaching team initially gave students more choice in their assignment topics but during the semester decided to limit student options, thus strengthening framing over selection in order to support more explicit evaluative criteria.

There was also variety in how classification was structured across the case studies. In most cases classification was weakened in efforts to support various goals. In the humanities and social science case studies, for example, there was an intentional weakening of classification between the courses and other disciplines as these are more general, foundational courses aimed at supporting students across a wide range of majors and disciplines in the faculty, rather than being specific to one discipline. This was effective for students' epistemological access in that they were able to apply the literacies they had learnt in these courses to their other courses even if they felt the nature of the disciplinary content was not always transferable across contexts. Weakened classification was also present in the commerce case study, such as in the careers discovery section of the course where weakened classification was used to promote relevance to the labour market – important for students' epistemological access given the applied nature of the programme and students' focus on being able to secure employment at the end of the programme. The physics case study, on the other hand, demonstrated stronger classification between the course and other disciplines as, unlike the humanities and social science courses, this course was discipline-specific and aimed at strengthening students' foundation in physics, rather than being a general science course. The course was thus more insular, and boundaries were more clearly defined in relation to other disciplines. This was

particularly relevant for students who planned to pursue physics in their degrees and supported their epistemological access by providing a strong foundation for further study in the discipline.

Disciplinary differences in knowledge, literacies, and practices are indisputable – we do not teach and learn argument construction in an essay the same way we teach and learn the steps in a mathematical equation. As Bernstein and the social realists point out, however, we engage with knowledge as social actors engaged in social practices. The study has analysed the ways in which staff, in particular, have spoken about the nature of their disciplines and how they shaped their pedagogy to support students' epistemological access to these disciplines. This thesis thus interrogates not only the nature of powerful knowledge, but how it is understood and engaged in by social actors through pedagogy as a social practice. The findings therefore reflect why, for example, weaker framing is well suited to the kinds of reflection encouraged in the humanities and social sciences case studies, and why certain aspects of the physics and commerce case studies required tighter framing over pace and sequence to support epistemological access given both the nature of the knowledge and the pedagogic practices employed in enabling access to it.

The findings reflect the value of blended, rather than solely online or in-person, pedagogic approaches for students' epistemological access, but stress the importance of disciplinary considerations in these blended learning environments. Pedagogy should be tailored to the unique requirements of the discipline and other contextual factors, and thus similar pedagogic practices could be enabling in one context and constraining in another. The physics discipline, for example, is a hierarchical knowledge structure in which subsequent knowledge builds on foundational concepts, with clear sequential dependencies. Gaps in foundational knowledge thus impede students' epistemological access. The in-person learning environment allows for concepts to be addressed sequentially and allows for the responsiveness and immediacy to ensure that foundational aspects are grasped before moving on. When the physics course was offered completely online during COVID lockdowns, teaching staff struggled to emulate the responsive teaching approach they usually enact

in the physical classroom, thus negatively impacting students' epistemological access. Although sequential dependencies were modelled in the online space, they also needed to be more explicitly engaged with in an in-person responsive setting as illustrated in the findings. The flexibility in pace evident in the online space has been shown to be beneficial across the board, but synchronous immediacy is required for certain concepts in certain disciplines.

The Bernsteinian analysis developed for this study was helpful in illustrating the microprocesses of pedagogy in online and blended learning environments and how pedagogy impacted students' engagement with powerful knowledge – their epistemological access. None of the case studies experienced the shift to online and blended teaching and learning without issue. Overall, however, the perception of these programmes and their offering in online and blended spaces was perceived as overwhelmingly positive. The student participants had no trouble expressing the ways in which the programmes had supported their academic and social transition into university. The value of blended approaches that feature flexibility, particularly in pace, are acute in contexts like ECPs as, by their very nature, they emphasize differentials in pace of progression by offering additional programme time and flexibility. As noted in the findings, however, participants argued for the value of these pedagogic approaches (that are well supported in blended learning environments) across the board.

9.4 Sub-question 3: What are the affordances and limitations of online and blended learning environments in supporting or hindering epistemological access in these case studies?

While sub-questions 2 and 3 are interrelated, it is important to address each in turn. Regardless of their circumstances, from privileged, well-resourced educational settings, to impoverished contexts, students and teaching staff will always engage in pedagogic practices to achieve their pedagogic goals. It is important to consider the factors and tools in their environments to understand what these social actors draw on to shape their pedagogy, as well as the ways in which aspects of their environments can be experienced as affordances or limitations depending on their goals (Bower, 2008; Hodgkinson-Williams & Deacon, 2013). The thesis thus avoids conceptualisations of these learning environments, including the technology within them, that suggest deterministic or essentialist understandings of tools or features that have inherent qualities or shape human behaviour independently (Oliver, 2011; 2016a; Selwyn, 2010; Fawns, 2022).

Mapping out pedagogic modalities for each case study allowed for the affordances of online and blended learning environments to be understood in relation to pedagogic goals. To draw on the example from the physics case study discussed earlier in this chapter, having the capacity for double periods in students' timetables, and being able to book venues where whiteboards were set up with markers and erasers, and where students could freely wander around, and where teaching staff were available to facilitate were all affordances in this context. They were affordances in the sense that they were enabling for the pedagogic goals of the teaching staff in supporting epistemological access to complex equations via peer learning and responsive facilitation. During COVID lockdowns when these sessions needed to be carried out on Zoom, the teaching team described this learning environment as posing limitations for their pedagogic goals as they struggled to foster the same kinds of peer learning, interaction, and responsiveness in their teaching online. That is not to say that the online learning environment was experienced as limiting on the whole – there were certainly aspects of the physics disciplinary pedagogy that were well-suited to an online learning environment,

including multiple means of content representation, access to simulations, and student autonomy over pace, to name a few.

Exploring the socially embedded nature of pedagogic practices requires research agendas that seek to understand the often constrained and inequitable use of technology in real world educational settings, rather than best-case examples (Selwyn, 2010). The data reflects these constrained and inequitable uses of technology as, for example, in participants' accounts of teaching and learning during COVID lockdowns. During this period the university entreated teaching staff to limit their online teaching to methods that were data-light, low-tech, and mobile-optimised (Pallitt & Kramm, 2022). This resulted in the social science case study, for example, using text-based chat rooms for their live classes rather than videoconferencing which would have been more data intensive. This also led to simulations on the physics course being positioned as optional (despite teaching staff viewing these as very educationally valuable) as they would lead out to external sites that were not zero-rated in terms of data. This also led to the case studies utilising WhatsApp for much communication during this time in line with general trends at the institution which posed both affordances and limitations in the case studies.

The ways in which teaching staff perceived of affordances and limitations in their learning environments was evident in the aspects they chose to shift to contact settings and the aspects they chose to retain online when lockdowns began to ease and contact teaching was gradually permitted again – which was around the time this field work took place. These choices reflect teaching staff's views on the powerful knowledge of their disciplines and how aspects of online and blended learning environments could present affordances or limitations in supporting epistemological access to that knowledge. On the physics course, for example, the convenor decided to retain the online course structure as is and employ a flipped classroom approach where contact time was reserved for workshop-format, active and peer-to-peer learning, and responsive teaching addressing difficult equations and concepts which are crucial to students' epistemological access in the discipline. On the

humanities course, they also decided to retain the online course structure and use contact time to scaffold and encourage discussion and translanguaging. They felt that the online space was a 'monolingual' one where it was difficult to foster the informality and comfort needed for engagement across languages and grappling with contested topics, thus presenting a limitation for their pedagogy. Similarly, the commerce teaching team viewed the small classroom setting as an affordance for engendering a close-knit community and allowing for vulnerability in discussions about students' transition to university – something they felt was difficult to mirror online. Across the case studies, participants valued the affordances of the institutional LMS to easily access and update course content, to structure learning paths and lay out guidance and instructional text. The weakened framing in this space offered an affordance in allowing for differentials in pace of progression, which are key to students' epistemological access, as well as the fostering of self-regulation, self-directed learning, and autonomy that are valuable for students' development as university students.

9.5 Sub-question 4: What are the digital inequalities faced by students that impact their participation in online and blended pedagogic practices?

In gathering rich data on the digital inequalities experienced by students, this thesis contributes to a broader conceptualisation of the multifaceted nature of digital inequalities in a South African context. This thesis avoids simplistic depictions of digital inequalities in binary terms of access vs. no access and recognises the complex and nuanced manifestations of digital inequalities (Robinson, 2009; Wilkin, Davies & Eynon, 2017; Hargittai & Hsieh, 2013; Eubanks, 2011; DiMaggio, Hargittai, Celeste & Shafer, 2004; Li & Ranieri, 2013; Gorski, 2009; Gunkel, 2003; Katz & Gonzalez, 2016), particularly in a South African context. This thesis goes some way to addressing the paucity in the literature of empirical, qualitative work on digital inequalities in low/middle income country contexts, and the influential role of mobile in many of these contexts (van Deursen & van Dijk, 2015; Bekesas, Mader & Riegel, 2016; Lopez-Sintas, Lamberti & Sukphan, 2020).

It was evident from the findings that many students had no exposure to laptops, desktops, or keyboards before coming to university, had not sent emails or used software like Word or Excel, but had developed sophisticated digital literacies, specifically via mobile. While it is true that some students' disadvantaged schooling backgrounds resulted in lack of access to or support with using technology, those very same backgrounds were often the catalyst for students having to develop resilience, perseverance, and innovation in their use of technology, in the face of significant constraints and challenges. Despite these valuable qualities, students often reported feeling alienated and marginalised in the institution given their unfamiliarity with certain tools or expected uses of technology - their existing literacies thus not sufficiently valued in the institution. The findings challenge the ways we understand digital inequalities and the digital literacies that we consider valuable in a South African context. Is there a way that the institution can better value, scaffold, and extend the existing literacies that students bring with them?

This is not to discount the ways in which students' existing mobile practices could be counterproductive to the development of academic literacies in some cases. Mobile practices offer affordances in sourcing and accessing relevant information in an efficient manner despite resource constraints. Many students are in the habit of using mobile in particular ways – instant gratification, immediacy, and quick, surface-level scanning of content. These practices can be at odds with academic practices that require deep, reflective, and critical engagement with texts. This issue is particularly pertinent in cases of school backgrounds that foster rote learning rather than critical engagement. These considerations are important when designing pedagogic practices as students' existing literacies and practices should be valued and incorporated, while also addressing potential obstacles related to these practices.

There are various features of the South African context that impact students' digital inequalities and constrain their autonomy over their learning in unique ways, as was evident in the study findings. In the macroenvironment, loadshedding (national electricity outages) as well as notoriously high mobile data costs in relative terms (Rambe et al., 2020) impacted how and when students could engage in their work online. Students would often work late at night when data was more affordable, for example, and could often not work at all during electricity cuts. While all South Africans are impacted by loadshedding in some way, the extent to which it has a negative impact is often shaped by one's existing privilege. Wealthier South Africans may have access to generators, solar power, inverters, or uninterrupted power supplies (UPSs) that mitigate the negative impacts of loadshedding. Students interviewed in this study, however, generally did not have access to these alternatives. During COVID lockdowns, students were often in home environments where they did not have their own private workspaces or devices, and sometimes had home and childcare responsibilities during the day – again, impacting their autonomy over their learning. Post-lockdowns, however, when moving back into university residences, many students described reliable internet connectivity, and access to their own devices and private working spaces.

These findings thus demonstrate the nuances and complexities of technology use in the South African context and the dangers of falling into binary thinking. Of course, there were instances of severe inequalities and constraints in technology use, but there were also instances where use was stable and autonomous. How technology is used in practice impacts the design of pedagogic practices and how affordances and limitations of online and blended learning environments are perceived. During COVID, for example, staff were cognisant of the need to make adjustments and accommodations for students facing severe digital inequalities and this shaped their pedagogy to a large extent. The technologies that staff decided to incorporate into their teaching needed to offer affordances not only in pedagogic terms, but also be inclusive, accessible, and feasible for a diverse range of students. At times, such as in the social science case study live classes, the barriers to epistemological access presented by gaps in digital skills were underestimated. This thesis argues for the importance of gaining a comprehensive understanding of the nature of digital inequalities and technology use given its now central role in pedagogy in HE, and thus the implications for students' epistemological access.

9.6 Main research question: How do pedagogic practices in online and blended learning environments in South African higher education impact students' epistemological access?

9.6.1 Supporting epistemological access through blended teaching and learning approaches that are tailored to disciplinary knowledge

If we take epistemological access to describe access to powerful disciplinary knowledge, then we can see the need to centre disciplinary considerations, as has been the focus of this thesis. This thesis demonstrates the deeply contextual nature of pedagogy and how it needs to be tailored to the nature of the discipline, its knowledge, the students and their needs, among other factors. There is no 'one size fits all' or 'best practice' when it comes to online or blended pedagogies. Questions of access and inclusivity are paramount and cannot be reduced to technical aspects. Only once we understand the nature of powerful knowledge and how pedagogy mediates students' access to it, can we then consider the technical design aspects that can be drawn on to foster that.

The findings presented herein argue that blended teaching and learning approaches, as opposed to fully contact or fully online approaches, can support students' epistemological access and inclusivity. This does, however, require careful consideration of the nature of disciplinary knowledge and pedagogy, as discussed above, rather than advancing a silver bullet approach to all blended teaching and learning. The case studies in this research demonstrate the complex ways in which disciplinary factors impact online and blended pedagogies and how these can be experienced as enabling or constraining by the social actors involved.

Disciplines which are writing intensive and require the development of academic writing literacies (e.g. the social science case study) can benefit from permanent online records of student writing that can be revisited and built on over time, as well as low stakes, experimental online spaces in which writing can be developed. Disciplines that focus on textual analysis and critical engagement with texts (e.g. the humanities case study) can draw on the affordances of asynchronous online engagement and the time and flexibility for reflection that this enables. Disciplines that feature

sequential dependencies (e.g. the physics case study) require contact teaching time in which the foundational, conceptual building blocks of the discipline can be solidified via responsive teaching that features immediacy and physicality. Disciplines that are classified as regions (e.g. the commerce case study) may foster close-knit, familial relationships with students through small group engagement and mentorship to address social and cultural capital needs and build professional networks.

There were, however, aspects of blended learning environments that were experienced as generally positive and enabling for epistemological access across the case studies regardless of discipline. The data in this study reiterates the importance of flexibility in pace, which was valued by both students and teaching staff, and how it was fostered in online and blended learning environments. This aligns with empirical work using Bernsteinian analyses (Hoadley & Muller, 2010; Hoadley, 2006; Arasaratnam-Smith & Northcote, 2017; Ellery, 2017a; Morais & Neves, 2017; Morais, 2002; Morais et al., 2004; Rose, 2004), research into widening participation in South African HE and academic development (Scott, Yeld, & Hendry, 2007; Shay, Wolff, & Clarence-Fincham, 2016b), as well as in the UDL field (Rose & Gravel, 2009; CAST, 2017; Stentiford & Koutsouris, 2020), and Leibowitz & Bozalek (2015) who bring these conversations together when looking at ECPs - all pointing to the important role of flexibility, or weaker framing, over pace in supporting epistemological access. Although weaker framing over aspects like pace in education is often considered more costly and complex (Bernstein, 1990), the online space can allow for this flexibility without the same strain on resources. Other aspects that were viewed as overwhelmingly positive and enabling in online and blended spaces in the research included student choice, multiple means of representation, and permanent online records.

While the university that was the site of the field work in this study is a research-intensive one, the COVID pandemic necessitated a stronger teaching focus. Familiar pedagogical environments were made strange again and academics were impelled to reconceptualise their teaching. In many cases

this engendered a more explicit pedagogy, particularly in the absence of in-person teacher or peer guidance. While pre-COVID many aspects of the pedagogy would be communicated in informal or organic ways, a shift to a wholly online environment necessitated a more intentional and considered 'spelling out' of the pedagogic experience, which is evident in this study in the ways that teaching staff used instructional text and explicitly scaffolded aspects like pace and sequence in their online learning design. The very process of transitioning from one learning environment to another requires interrogating unspoken assumptions of one's discipline and the pedagogic practices that support access to it. In this institution, like others, junior academics will often 'inherit' existing courses from more senior academics which they feel they are not in a position to overhaul and thus lecturers themselves may even be unaware of some of the unspoken assumptions and expectations on courses they are teaching. This interrogation is a productive endeavour for epistemological access as the academic literacies literature attests, stressing the importance of making the expectations and assumptions of the curriculum (both hidden and otherwise) explicit, and Bernstein's (1990) view that more explicit, 'visible' pedagogies are preferable for disadvantaged students.

In the post-COVID context, universities and teaching staff recognise the many positives that emerged from the shift to online learning, although the conditions under which this first occurred were often stressful and traumatic, gradually shifting to more purposeful and considered blended approaches. There is a general consensus that the immense efforts channelled into designing and developing high quality online and blended pedagogies during the past few years should not be lost. Simultaneously, there is also a general consensus that there is little desire to return to the fully online approaches that were often necessary during lockdowns, and a recognition of the important role of contact teaching and learning in universities. Teaching staff now have an opportunity to expand their pedagogic repertoires, drawing on both blended and contact approaches to achieve their pedagogic aims. There is also the opportunity to embed flexibility in pace of learning and progression into university programmes, so as to address widening participation and epistemological access in the

broader context of resource constraints and diversity in the student body (Scott, Yeld, & Hendry, 2007).

There is currently a paucity of research which explores how teaching and learning of different disciplines occurs in online and blended contexts and the implications for students' access, particularly using Bernsteinian analyses. This thesis, offering detailed and contextual accounts of four disciplinary case studies, provides a foundation for subsequent empirical work to explore these practices within a wide range of disciplinary settings. Bernstein's work on knowledge structures provides the language to describe and differentiate between disciplines. Academics' understanding of their disciplinary subject matter influences the pedagogic practices they employ in teaching it (Hirst, 1974; Becher & Trowler, 2001; Stemhagen et al., 2013) and teaching, learning, and assessment, rather than being arbitrary, are related to the knowledge being taught (Maton & Moore, 2010; Wheelahan, 2010; Wheelahan & Moodie, 2021). Pedagogical decisions should be informed by disciplinary considerations (Maton & Moore, 2010). Given the differences in teaching and learning in different disciplines, the thesis argues that the ways in which technology is integrated into teaching and learning practices should differ by discipline as well (Czerniewicz & Brown, 2007). This thesis provides not only an analytical framework to explore pedagogy in online and blended learning environments, but also a practical illustration of how this pedagogy is enacted across diverse disciplinary contexts and the ways in which that mediates access to powerful disciplinary knowledge. It is evident from the findings that the ways in which technology is drawn on in these learning environments and the ways that online and blended pedagogies take shape can be enabling in one disciplinary context and constraining in another – highlighting the contextual nature of this work. There is value in both exploring the relationships between teaching practice and epistemological access and, based on these findings, experimenting with different teaching approaches that may better support access (Lotz-Sisitka, 2009).

9.6.2 Supporting epistemological access through student agency in technology use

The thesis not only explored ways of supporting access to powerful knowledge but examined the nature of powerful knowledge itself. Both propositional knowledge (knowledge as theory or 'know that') and procedural knowledge (knowledge as practice or 'know how') (Muller, 2014) were in evidence in the findings. The two types of knowledge are interrelated and reliant on each other, and disciplines will have different combinations of each depending on the nature of the discipline (Muller, 2014; Muller & Young, 2014). Findings from the case studies illustrate how both types of knowledge can be identified when exploring digital literacies. In the humanities case study, instances of digital procedural knowledge were evidenced as students were guided and supported to engage with digital practices and develop digital literacies as a stepping-stone to accessing other literacies or knowledge in the disciplines, e.g. how to source and interrogate the credibility of information online, how to compile digital archives, etc. Other instances in this case study indicate the importance of propositional knowledge where the digital literacies were the powerful knowledge in their own right. Online media, digital practices, or communication in digital environments, as examples, were part of the subject matter of the course itself. The study demonstrates that this distinction is useful in understanding epistemological access in online and blended learning environments. The very nature of powerful knowledge is always in flux, and how we engage with powerful knowledge is often digitally mediated, or indeed digital literacies constitute powerful knowledge in and of themselves, supporting engagement in society's important conversations (Wheelahan, 2010).

To source, vet, and engage productively with digital resources in order to pursue educational goals despite immense barriers – behaviours that many students in this research demonstrated – offer exemplars of sophisticated digital literacies. Experiences of disadvantage that force students to develop resilience and initiative should be positioned as resources rather than deficits in HE (Marshall & Case, 2010; Kapp & Bangeni, 2020; Kapp et al, 2014; Czerniewicz & Brown, 2014). Indeed, this thesis illustrates students' valuable digital literacies and how these serve their

epistemological access to academic disciplines. While the findings of the study indicate teaching staff's concerted efforts to value and incorporate students' existing literacies and experiences in various spheres, there was not sufficient recognition of the digital sphere in this regard. How can we recognise and enhance the valuable digital literacies that students bring to the institution rather than viewing these as deficits? Humanising, participatory approaches to learning design and co-creation with students are useful methods when grappling with educational technology challenges in a socially just manner (Pallitt et al., 2022; Govender et al., 2023; Winters, 2013; Mehta & Gleason, 2021). It is important to design blended pedagogic practices that draw on students' existing practices and literacies (Mehta & Gleason, 2021), particularly when it comes to their complex and innovative engagements with mobile (Czerniewicz et al., 2009; Brown & Czerniewicz, 2010; Winters, 2013; Czerniewicz & Brown, 2013; Rambe et al., 2020). This may necessitate a shift in mindset to see mobile as a primary rather than secondary learning environment in some cases (Brown & Czerniewicz, 2010; Czerniewicz & Brown, 2013; Oliver, 2016b).

Epistemological access involves learning how to become a successful participant in an academic practice (Morrow, 2009: 78), and thus becoming a legitimate disciplinary knower requires both 'doing' and 'being' (McLean, Abbas & Ashwin, 2013a; 2015; 2017; Barnett, 2009; Becher & Trowler, 2001). The findings of this study illuminate the agentic ways in which students utilise technology to engage with powerful disciplinary knowledge and participate in disciplinary communities. Current literature does acknowledge that while disadvantages in their home and schooling backgrounds do present obstacles to student success, these are not necessarily overdetermining, with individual lives being both constrained and agentic, demonstrating a unique interplay between structure and agency (Kapp et al., 2014; Kapp & Bangeni, 2020). The resilience, motivation, and agency that these students must display to overcome challenging and under-resourced home and school environments equip them with the tools to persevere and succeed in higher education, even if they often lack the necessary educational capital (Czerniewicz & Brown, 2014; Marshall & Case, 2010; Kapp et al., 2014). Rather than constructing these students in pathologising, deficit terms, it is up to the university to

find ways to harness students' agency, reflexivity, and motivation in their transition into higher education (Kapp et al., 2014). This thesis aligns with these arguments in the literature and goes further to analyse the (up to now) underexplored digital considerations. The concept of the 'digital native', refuted in the literature review, is flawed in that it operates in binaries – students either possess the digital know-how or they do not (Brown & Czerniewicz, 2010). The findings in this study describe the constraining digital inequalities experienced by students, but also acknowledge the agentic ways in which students navigate these to pursue their aims and develop innovation, resilience, and motivation that are valuable within the university space. The thesis thus provides a nuanced and contemporary account of young South Africans in the digital space rather than reverting to generic concepts like the digital native or digital immigrant.

Bernstein's framing provides us with the language to describe student agency and relative control in pedagogic practice. Further, UDL gives us concepts (like the expert learner) to understand students' agentic use of technology in engaging with powerful knowledge. Examples from the case studies illuminate how students display strategic, purposeful, and goal-directed behaviours in their learning – some of the behaviours that are cornerstones of UDL's concept of an expert learner (Rose & Gravel, 2009; McKenzie & Karisa, 2021; CAST, 2017). Students design and direct their own learning in ways that were not even anticipated by the teaching team. This thesis thus expands our view of epistemological access, recognising the ways in which students' use of technology is agentic and how their digital literacies support their engagement with powerful knowledge, even if these digital literacies are not fully valued in the institution and may still be perceived in deficit terms.

While the findings reflect the concerted efforts to avoid a deficit discourse in relation to students when it comes to everyday knowledge and experiences, there is also a need to confront instances where deficit discourses persist in relation to students' digital literacies. As what constitutes powerful knowledge itself is always in flux, this thesis presents rich data regarding students' valuable agentic use of technology and how it supports their epistemological access.

9.6.3 Supporting epistemological access through an academic development rather than technicist approach to education

A 'traditional' approach to issues of technology in education has compelled a strong (and outside of academia, an almost exclusive) focus on the technical aspects and so-called solutions. These solutionist approaches are evident in many anecdotal conversations on the 'effects' of AI or online instruction on learning, as examples. Research, however, has long emphasized the *socially embedded* nature of technology use in education and the value of viewing pedagogic practices in this regard as fundamentally social (Selwyn, 2010; Oliver, 2016b; Fawns, 2022). Bernstein's concepts, particularly framing and classification, give us the conceptual language to describe the micro-processes of pedagogy as social practices that shape engagement with powerful knowledge. This thesis explores how technology is drawn on in pedagogy - in both enabling and constraining ways - across a range of disciplinary contexts. Not only are Bernstein's concepts used to describe the current status quo, but they are also used in this thesis to allow us to imagine how pedagogy *could* be designed and enacted (Moore, 2013a; Muller, 2004; Hoadley, 2007) to better support epistemological access. Theory on epistemological access argues for equality of access to the most powerful forms of knowledge through the means that most reliably enable that access (Maton & Moore, 2010; Moore, 2013). This thesis argues for the value of blended learning as a key 'means' for supporting epistemological access and emphasizes the importance of analysing and implementing blended learning approaches with an academic development rather than technicist lens.

There is a need for more research which seeks to understand how knowledge is transformed from the research site of production, to the curriculum, and into the classroom, and the various power struggles as different actors shape this knowledge at each stage (Ashwin, 2014; 2022). The use of technology in engagements with knowledge reflects some of these power struggles and, as we shift knowledge into digitally-mediated spaces, we have an opportunity to interrogate some of these questions of power, as well as deliberating the digital literacies that are positioned as valuable and powerful. We can also raise questions regarding who shapes online and blended pedagogy. Should

the edtech industry be bearing so much influence (Selwyn, 2023) or, as this thesis argues, should academic development play a more central role?

Extended curriculum programmes – the research sites of this study – are situated within the academic development field and are one of the main vehicles through which the field seeks to address the challenge of widening participation in SA HE. A key aspect of this study, in addition to understanding the pedagogic practices within these programmes, was understanding both student and staff perceptions of the programmes and academic development work more broadly.

The findings support arguments in the literature as to the value of this work and the calls to implement it in the mainstream rather than solely for extended curriculum provision, thus supporting all students (Heydenrych & Case, 2016; Bangeni & Greenbaum, 2019; Lubbe, 2017; van Schalkwyk, 2007; Shay, Wolff & Clarence-Fincham, 2016a; Eybers, 2015; and Case, Marshall & Grayson, 2013). Participants often felt the work was sidelined and not prioritised in universities, as well as experiencing outright stigma and misconceptions. The findings suggest that in addition to flexibility in pace which is crucial in supporting students' epistemological access (and which was well-implemented in online and blended spaces in this study), ECPs and similar academic development interventions also support other pedagogically valuable approaches, including the psycho-social support that student participants found incredibly valuable, peer-to-peer learning, decoloniality, translanguaging, and the valuing of students' cultural and linguistic resources. Although not all these approaches were implemented in the case studies without issue, the findings do speak to the merit of continued efforts to pursue these aims.

In this study, instructional discourse, which describes specialised skills and competences and their relation to each other (explored via the sequence, selection, pace, and evaluative criteria aspects of framing) (Bernstein, 1990; 2000), is useful in illustrating and exploring pedagogic practices. Regulative discourse, which describes the rules of social order, character, manner, conduct, posture, etc., and the social roles that students and teachers embody and their relations to each other

(Bernstein, 1990; 2000), is a useful tool for exploring how the academic development field shapes staff and students' social roles.

The academic participants in this study operate within a SA HE space characterised by pronounced inequity. They are tasked with supporting students' transition from often marginalised educational and social contexts into a university environment marked by a legacy of exclusion in which powerful knowledge was reserved for a privileged minority. It is evident from the findings that their work is driven by a social justice agenda, and many see their role as encompassing not only the pedagogic, but also the pastoral in extending social support, guidance, and mentorship to their students, and filling supposed gaps in social and cultural capital. Students often commented that the ECPs were their sole source of this pastoral support, which was absent in the university mainstream which they viewed as purely academic. The learning environments, pedagogic practices, and pedagogic relationships in this study are thus conceived of in sociological terms by the academic participants.

While their role encompasses supporting this transition into university, the social justice imperative also prompts these academics to challenge the exclusionary aspects of the university's institutional culture, and to work towards genuine transformation and inclusion of a diversity of students rather than expecting assimilation. This is often advocated for in calls to embed academic development work more explicitly into the mainstream and do away with deficit discourses that position some students as requiring support outside the norm. Within the regulative discourse, academics have expectations of students' character and conduct. While many of these students come from schooling backgrounds that expect deference to the authority of the teacher, rote learning, memorisation, and acceptance of established facts, academics at the university often encourage students to adopt dispositions of being questioning, critical, independent, and to develop their own arguments and a strong academic voice. In this way they often aspire to challenge institutional norms and create an environment in which students' own knowledge and experiences are valued rather than marginalised. The study findings thus indicate teaching staff's views that supporting epistemological

access requires not only explication of the hidden academic curriculum, but also psycho-social support, and advocacy for institutional change.

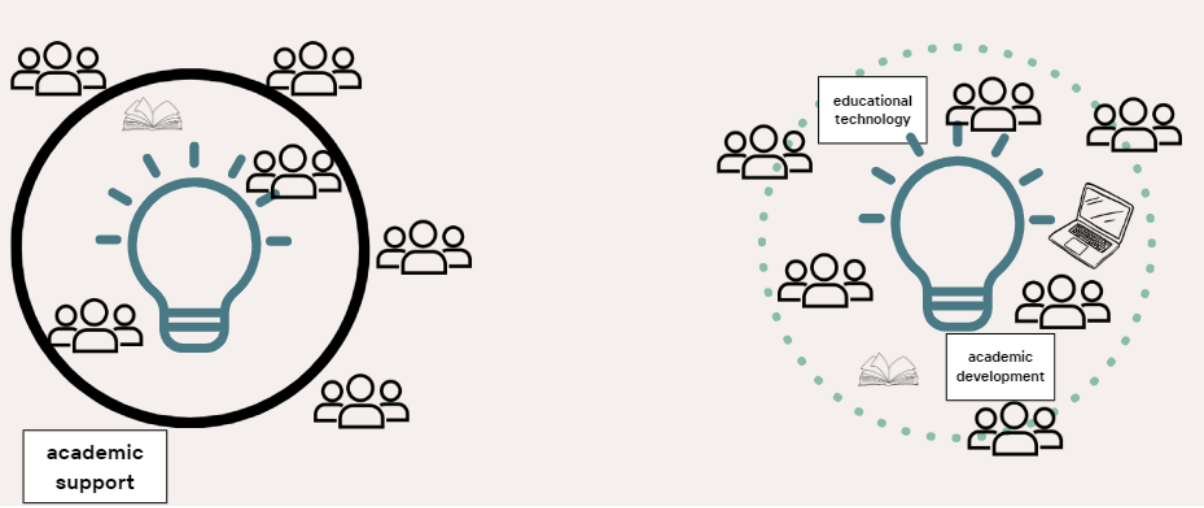
Epistemological access has been a key concern of the South African academic development field for many years. Recent events have seen academic development and educational technology functions becoming more central in most universities, as well as seeing these two areas converge (Trotter et al., 2022). The increased importance and recognition of this work as universities grapple with educational technology challenges reflects a broader movement to legitimise academic development, moving it from a marginalised space focussing solely on staff development to a well-theorised field capable of addressing broader issues of transformation and social justice at institutional and national levels (Ashwin, 2022; Clegg, 2009a; 2009b; Shay, 2012; Clarence, 2018; Czerniewicz, 2008; Boughey, 2007). There are interesting parallels between the ways in which both academic development and educational technology have been perceived in SA universities. While many may perceive of academic development as a neutral space for the development of generic teaching 'skills' or 'tips and tricks', it in fact takes a much more critical approach to issues of teaching and learning, interrogating equity and social justice concerns (Clarence, 2018, Clegg, 2009b). Similarly, the field of educational technology is not confined to technical design of learning platforms, or tips on using the latest tools. Its recent affiliation with academic development demonstrates the potential to take more theorised, critical, and equity-oriented approaches to the use of technology in education.

This study is an illustration of the value of taking an academic development approach to issues of educational technology and demonstrates the importance of avoiding a solely technicist view (Selwyn, 2010; 2022), emphasizing inclusion and equity. It reflects the multifaceted nature of academic development work in supporting epistemological access in digitally mediated spaces – combining discipline, pedagogy, design, and axiological considerations. This thesis argues that conversations around technology use in education should be informed and steered by academic

development considerations first and foremost. Understanding the ways in which pedagogic practices impact students' epistemological access are fundamentally academic development questions.

The graphic below illustrates two broad periods in South African higher education as it relates to epistemological access. On the left we see a firmly bounded HE system in which the majority of young South Africans were excluded from pedagogical engagements with the powerful disciplinary knowledge of universities – represented by the lightbulb. This was true of the apartheid period. Academic support, as it was then referred to, held a marginal position, outside of main university operations. On the right we see the period post-apartheid and to the present day. There have been major strides to open up formal access to HE for young South Africans as represented by the shift from the solid to dotted line, yet many students find themselves on the margins, struggling to engage with powerful disciplinary knowledge – reflecting the persisting struggles with epistemological access. Technology is now firmly part of pedagogic practices within these spaces, with many universities featuring blended learning environments. Academic development and educational technology are also increasingly becoming part of main university operations although they are often perceived as existing as separate functions and not fully integrated into mainstream teaching and learning – evident in the findings of the study regarding stigma and marginalisation of ECPs.

Figure 2: Two periods in South African higher education



The graphic below illustrates the contribution of the thesis to supporting epistemological access in a contemporary SA context. Blended pedagogic practices tailored to the nuances of disciplinary contexts support students' access to and engagement with powerful knowledge. Students and staff can shape powerful knowledge from the inside, with students being able to draw on existing practices and literacies. These engagements take place within an encompassing academic development structure that includes theorised and critical understandings of technology use in education, doing away with the need to separate out ECP and mainstream provision.

Figure 3: Graphic representation of epistemological access in the thesis



This research, which focusses primarily on four case studies of blended and online teaching and learning, finds that blended, rather than fully online or contact, approaches to education can be enabling for epistemological access. The value of blended approaches was evident across the study and there was consensus amongst participants that this was preferable to more polarised approaches. There are aspects that are enabling on the whole, such as the closely entwined relationship between flexibility in pace and epistemological access but, in general, blended teaching and learning needs to be tailored to disciplinary and contextual considerations, and the various manifestations of blended learning across the cases reflect this. This thesis illustrates the complex and nuanced nature of digital inequalities in South Africa and describes how young South Africans face constraints, but also possess valuable digital practices and literacies that foster resilience and innovation. The thesis argues for pedagogic practices which incorporate those literacies through participatory approaches and an interrogation of the knowledge and practices that are considered

powerful in our current context. These arguments demonstrate why the use of technology in education cannot be reduced to solely technicist understandings. Rather, these are social practices and an academic development approach that centres equity and social justice is most fitting for this work.

Taken together, these findings offer a nuanced account of epistemological access in South African higher education at a time when debates around how technology is and *should* be used in education are ubiquitous. Blended pedagogic practices can support students' epistemological access but require a critical academic development lens and participatory approaches.

Chapter 10: Conclusion

The first chapter in this thesis contextualises some of the pressing challenges in South African higher education that this study addresses, particularly related to students' epistemological access and the role of educational technology in this regard. The literature review then delves into the topic of knowledge in higher education given epistemological access as the key concern of the thesis. This includes a discussion of what makes knowledge powerful, particularly in relation to disciplinary communities, how powerful knowledge is challenged, and how we can conceptualise of and differentiate between different types of knowledge and knowledge structures. Classification and framing as conceptual tools used to understand how access to powerful knowledge is mediated through curriculum and pedagogy are explained. The literature review then goes on to provide an overview of the academic development field in SA, including ECPs as the research site of the study, and the importance of academic literacies. The role of educational technology in SA HE is explored, including considerations of digital inequalities and digital literacies, and approaches to online learning design. Finally, the literature review details how Bernstein's work has been applied across a range of educational contexts and how it is applied in the current study.

The methodology chapter lays out the multiple case study design and ethnographically-informed, qualitative research, providing a rationale for the methodological decisions made in the study. The case selection process is detailed, including descriptions of the case studies and the institution in which they are nested. The chapter describes how data was collected and analysed, particularly how Bernstein's concepts were adapted as an analytical framework for a novel context. Ethical considerations and positionality are also detailed.

The findings of the four case studies are then presented. Each case study chapter outlines how powerful knowledge is understood in the relevant disciplinary setting, maps out pedagogic modalities that explore how students' access to powerful disciplinary knowledge is mediated through online and blended pedagogic practices, and analyses the affordances and limitations of the

learning environments for the social actors' pedagogic goals. The chapters explore the ways in which existing digital inequalities and practices impact pedagogy. The findings also investigate some general themes related to online and blended learning in SA HE, including the significance of flexibility in pace and sequence and the concomitant opportunities and challenges, the impact of digital inequalities but also the resilience and innovation associated with students' technology use, as well as how COVID shaped space and time dimensions related to HE and how classification gives us the language to describe this phenomenon. The findings detail why most participants agree on a blended rather than fully online or fully contact approach as most pedagogically valuable. Given the research site of ECPs, set within the broader academic development field, rich data was presented regarding perceptions of these programmes as a whole, the stigma and misunderstandings often associated with them, but also strong views regarding how this work should be integrated into mainstream HE teaching and learning going forward.

The discussion addresses the research questions of the study, demonstrating how answering each of the sub-questions in relation to the case study data allows us to address the broader research question regarding how online and blended pedagogic practices impact students' epistemological access in SA HE. Through three key points, I argue that an iteration of the concept of epistemological access, which incorporates these findings, provides a useful means of understanding how students' access can be enabled in a contemporary SA HE context.

Firstly, I argue that a blended approach, rather than fully online or contact, can support epistemological access through, for one, flexibility in pace which is so crucial to accommodating a diversity of students. I also argue that a blended approach widens pedagogic repertoires, allowing staff and students to draw on a diverse range of pedagogic practices that can be tailored to the needs of each discipline and its knowledge. Secondly, I argue for the importance of recognising the agency that students display in their educational technology use, and the valuable and innovative digital literacies they draw on to support their epistemological access. This requires acknowledging and

valuing what students contribute in terms of digital literacies, avoiding a deficit discourse, and exploring the ways in which these literacies can be better embedded into teaching and learning, often through participatory approaches. Lastly, these issues require an academic development rather than technicist approach, centring sociological considerations of power and agency, and working toward socially just approaches to the use of technology in education.

10.1 Thesis contributions

This thesis makes several methodological, empirical, and theoretical contributions. A novel application of Bernstein's concepts, particularly classification and framing, to online and blended learning environments is presented in the study. In mapping out pedagogic modalities specifically for online and blended learning environments for the first time, the need to adapt the concept of framing for the digital space was recognised. The thesis presents an analytical framework in which two dimensions of framing, which have typically been conflated, are separated out in the analysis – the explicit/implicit dimension and the control dimension. I argue that these two dimensions of framing are essential in analysing pedagogic practices in online and blended learning environments and how they impact students' epistemological access. They will thus be useful to researchers carrying out further empirical work in these spaces.

The study provides rich empirical data illustrating the nature of digital inequalities in a contemporary South African context, an area in which there is currently a paucity of research (van Deursen & van Dijk, 2015; Billon, Crespo, & Lera-Lopez, 2021). This data challenges one-dimensional conceptualisations of digital inequalities and digital literacies, demonstrating both constraints and agency in young South Africans' technology use, and how this innovative technology use can support students' epistemological access. The study also captures the experiences of staff and students during a challenging and transformative time in South African higher education, including reflections across the pre, during, and post COVID lockdown periods. In-depth empirical data investigating the interplay of technology and pedagogy across diverse disciplinary contexts is presented, and the thesis thus provides a useful roadmap for researchers looking to explore these aspects in other disciplines.

The thesis offers a theoretical contribution to the field of academic development and the increasing importance of educational technology within that field. In its iteration of the concept of epistemological access, the thesis enriches our understanding of epistemological access in a

contemporary South African higher education context and the ways in which students can be supported in this regard.

10.2 Challenges and limitations

This thesis aims for analytic and theoretical generalisability (Yin, 2018), and the findings are likely to offer general principles that could be relevant to other contexts in which pedagogic practices in online and blended learning environments are studied and analysed. Given the scope of the study, however, it is not possible to explore these practices in every discipline, every higher education context, and to explore every type or manifestation of online or blended education. This is an important avenue for future research.

Swanborn (2010) describes the concept of theoretical generalization, similar to Maxwell's (2012) 'analytic' generalisation, suggesting that while each particular case may feature some unique and distinctive aspects, the findings from case study research could be generalised to other contexts if the steps taken to make these generalisations are supported by empirical evidence and the interpretative argumentation of the researcher. While a certain case study and its context may be unique to a specific place and time, there are principles that we can uncover of the broader phenomenon that may be applicable to other contexts. Lincoln & Guba (1985) stress the responsibility of the researcher to provide the rich empirical evidence that would make it possible for other researchers to determine the contextual similarity of their proposed setting to the researcher's. To ensure the rigour and credibility of the study, attention has been paid to providing rich and detailed findings and analyses, as well as an external language of description that may be adapted by other researchers.

While I refer to my work with marginalised South African students in this research, it is important to acknowledge that this is not a homogenous group (Ashwin & Case, 2020; Nomdo, 2017), and participants vary widely in terms of their home and schooling backgrounds, the parental or family involvement and support in their lives, language, racial and cultural background, rural or urban upbringing, and exposure to and experience with technology, among other aspects. Again, this limits generalisability somewhat, and the unique characteristics and challenges of individual students should be taken into consideration in different contexts as it relates to support in online and blended learning. As an example, what are the experiences of first-generation students in particular in these

blended and online learning environments? Or students from rural backgrounds? These may be areas for further research.

A challenging aspect of the research was working within the confines of short academic terms with participants who were often overstretched and overworked and had limited time available to participate in the research. Receiving initial access to the case studies was difficult, in one case taking ten months, due in part to several role changes and sabbaticals in the department at the time, which meant my contact point shifted a number of times. There was also protest action at my participating university which disrupted normal university operations from time to time. The implication of this is that I did not have as much contact time with my participants as I would have hoped, especially given the ethnographic approach taken in my research, but fortunately I was still able to collect sufficient data.

While I did initially envision an educational intervention being part of my study, I decided not to pursue this approach. This institution has its own processes in place related to pedagogy and online and blended education and they may view an outside researcher's involvement here as overstepping a boundary. Although I did not collaborate with my participants on an intervention, I found that I was able to provide value for my participants in various ways. I was able to provide my academic participants with insights on their students' learning experiences on their courses, in much more detail than they usually receive on their course evaluation surveys. Academic participants valued this feedback and its potential to inform future pedagogic practice on these courses. The research also occurred at an opportune time as the university is currently undergoing a migration from one LMS to another, and my academic participants were already reflecting on their online and blended pedagogic practices as they move to a new platform and were thus appreciative of my insights. I also felt that I was able to add value for my participants simply by opening up a space in which their voices were heard, and where they were able to reflect on their experiences – a rare pause in one's busy schedule. I felt privileged that many of my participants, both students and academics, felt comfortable enough to open up about difficult or sensitive experiences of their own volition, such as

challenges in their personal and professional lives, difficulties they had experienced in their home and schooling backgrounds, and the shared trauma of the COVID experience.

10.3 Recommendations for future research and practice

As discussed, the thesis offers a detailed external language of description which takes Bernstein's concepts into online and blended spaces, including an adaptation of framing that accounts for the nuances of the digital space. Researchers are thus encouraged to take this kind of analysis forward across other disciplinary contexts. There is also the opportunity to investigate other types and manifestations of educational technology use, or different higher education contexts – there is, for example, a paucity of educational research in historically disadvantaged institutions in South Africa (Ashwin & Case, 2020), and it would be interesting to explore the use of educational technology in these spaces. As mentioned, marginalised students are not a homogeneous group, and researchers could choose to focus on educational technology use among a specific group of South African students, e.g. first-generation, or those from a rural background.

This thesis contributes to praxis, offering practitioners novel ways of thinking about their own disciplinary contexts, their pedagogy, and the role technology can play with an equity-focussed rather than solely technicist lens. It is useful for practitioners to engage with detailed illustrations of online and blended pedagogy in practice and the ways in which this pedagogy is tailored to the nuances of disciplinary knowledge and educational context. This may prompt practitioners to experiment with educational interventions in their own spaces and to reflect on the social justice implications.

This research is timely and relevant given the reality of educational technology use in higher education and current conversations regarding the use of AI in education (Selwyn, 2022; Makeleni et al., 2023), for example. Educational research that maintains sharp focus on the sociological dimensions of technology use in education rather than falling into technicist approaches is a valuable contribution to the field.

This thesis set out to understand how pedagogic practices in online and blended learning environments in South African higher education impact students' epistemological access. Students'

access to powerful disciplinary knowledge remains a pressing challenge if we are to realise a socially just and equitable future for higher education in South Africa. Not only were these impacts illustrated through rich case study findings, but the thesis also went on to iterate on the concept of epistemological access itself, offering the reader an in-depth conceptualization of how this phenomenon manifests in a contemporary South African higher education context where technology now features prominently in teaching and learning. It is argued that epistemological access can be supported through blended teaching and learning approaches tailored to the nuances of disciplinary knowledge, through the affirmation and inclusion of student agency and existing literacies in teaching and learning, and, most importantly, by taking an academic development approach to questions of technology in education. This thesis not only provides the language to explore pedagogic practices in the online and blended learning environments prevalent in higher education, but takes a strong social justice approach, arguing for ways in which young South Africans' access and success in higher education can be supported.

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Appendix A: Oxford CUREC approval

CUREC Approval CIA-21-261

Pinar Kolancali <pinar.kolancali@wolfson.ox.ac.uk>
Mon 2021/06/21 13:12
To: James Robson <james.robson@education.ox.ac.uk>; Lara Karassellos <lara.karassellos@new.ox.ac.uk>
Cc: Student CUREC <student.curec@education.ox.ac.uk>

Dear Lara and James,

'Supporting students in gaining epistemological access to online learning environments in higher education.'

The above application has been considered on behalf of the Departmental Research Ethics Committee (DREC) in accordance with the procedures laid down by the University for ethical approval of all research involving human participants.

I am pleased to inform you that, based on the information provided to DREC, the proposed research has been judged as meeting appropriate ethical standards, and accordingly, approval has been granted.

Please continue to follow all current guidance issued by CUREC during the pandemic, notably COVID-19: CUREC guidance on research involving human participants, https://researchsupport.admin.ox.ac.uk/governance/ethics/coronavirus

Please follow the guidance on online data collection and research methods issued by the University,
(1) https://researchsupport.admin.ox.ac.uk/covid-19/data#collapse2299911
(2) https://infosec.web.ox.ac.uk/article/guidelines-for-using-zoom

If relevant, please also check the CUREC website for their best practice research guides, https://researchsupport.admin.ox.ac.uk/governance/ethics/resources/bpg

Stay safe,

Yours sincerely,

Pinar

Dr Pinar Kolancali
Postdoctoral Researcher
Departmental Research Ethics Committee Member
15 Norham Gardens, Oxford OX2 6PY
Email: pinar.kolancali@education.ox.ac.uk
LiFT: http://www.education.ox.ac.uk/research/lift-learning-for-families-through-technology/

Appendix B: Participating university ethics approvals

[redacted]

7 December 2021

Lara Karassellos
Department of Education
University of Oxford

Dear Ms L. T. Karassellos

Supporting students in gaining epistemological access to online learning environments in higher education

The Research Ethics Committee of the [redacted] has reviewed the documentation you submitted in respect of the above proposed research study.

I am pleased to confirm that the REC has approved the study to proceed on the terms specified in your submissions to the committee. Should the research focus and process change in any substantive way, you are requested to make a new submission to the Committee. Please note that ethics clearance is granted for ONE calendar year from the date of approval. You will need to re-apply for ethical clearance if your study extends beyond this period.

Please note that researchers who wish to acces[redacted]students for research purposes must also apply to the [redacted] and those wishing to access [redacted] for research purposes must apply to the [redacted]

We wish you all the best with the research.

Yours sincerely

[redacted]

RESEARCH ACCESS TO STUDENTS

[redacted]

SECTION A: RESEARCH APPLICANT/S DETAILS

Position	Staff / Student No	Title and Name	Contact Details (Email / Cell / land line)
A.1 Student Number	[redacted]	Ms Lara Karassellos	Lara.karassellos@new.ox.ac.uk ; 072 697 1202
A.2 Academic / [redacted]			
A.3 Visitor/ Researcher ID No.			
A.4 University at which a student or employee	University of Oxford	Address if not[redacted] University of Oxford, United Kingdom	
A.5 Faculty/ Department/School	[redacted]		
A.6 APPLICANTS DETAILS If different from above	Title and Name	Tel.	Email

SECTION B: RESEARCHER/S SUPERVISOR/S DETAILS

Position	Title and Name	Tel.	Email
B.1 Supervisor	Prof Niall Winters	[redacted]	
B.2 Co-Supervisor/s	Dr James Robson		

SECTION C: APPLICANT'S RESEARCH STUDY FIELD AND APPROVAL STATUS

C.1 Degree – if applicable	DPhil Education
C.2 Research Project Title	Supporting students in gaining epistemological access to online learning environments in higher education
C.3 Research Proposal	Attached: Yes Yes [redacted] No ☐
C.4 Target population	[redacted] students involved in extended curriculum programmes
C.5 Lead Researcher details	If different from applicant:
C.6. Will use research assistant/s	Yes ☐ No [redacted] If yes- provide a list of names, contact details :
C.7 Research Methodology and Informed consent	**Research methodology:** Qualitative, ethnographically-informed case study research. Methods include interviews, focus groups, observations, talk around texts, and analysis of course documents **Informed consent:** Yes
C.8 Ethics clearance status from [redacted] Faculty Ethics in Research Committee /Chair (EiRC)	Approved by the [redacted] Yes Yes [redacted] With amendments: Yes ☐ No [redacted] (a) Attach copy of your [redacted] ethics approval. Attached: Yes Yes [redacted] No ☐ (b) State date / Ref. No / Faculty of your [redacted] 07/12/2021 Ref. / Faculty: CHED2021_26_Karassellos, OX: 21/06/2021 Ref: CIA-21-261

SECTION D: APPLICANT/S APPROVAL STATUS FOR ACCESS TO STUDENTS FOR RESEARCH PURPOSE

(To be completed by the ED, DSA or NOMINEE)

D.1 APPROVAL STATUS	Approved / With Terms / Not	* Conditional approval with terms		Applicant/s Ref. No.:
	(i) Approved [redacted] ~~(ii) With terms~~ ~~(iii) Not approved~~	a) Access to students for this research study must only be undertaken after written ethics approval has been obtained. b) In event any ethics conditions are attached, these must be complied with before access to students.		[redacted] / Ms Lara Karassellos
D.2 PREPARED BY:	Designation	Name	Signature [redacted]	Date of Approval
	Personal Assistant	[redacted]		15/02/2022
D.3 APPROVED BY:	Designation			Date of Approval
	Executive Director Department of Student Affairs			*15/02/2022*

[redacted] | **ACCESS TO [redacted] STAFF FOR RESEARCH PURPOSES** | [redacted]

[redacted]

SECTION A: APPLICANT DETAILS

Title	Ms	Name	Lara Karassellos
Telephone number	072 697 1202	Email address	Lara.karassellos@new.ox.ac.uk
Student number		Staff number	
Visiting researcher ID / passport number	[redacted]		
University or institution at which employed or a registered student	University of Oxford		
Faculty or department in which you are registered or work	Department of Education, University of Oxford		
Address [redacted]	Department and University address: Department of Education, University of Oxford, 15 Norham Gardens, Oxford, United Kingdom, OX2 6PY [redacted]		

SECTION B: SUPERVISOR DETAILS

	Title and name	Telephone number	Email address
Supervisor	Professor Niall Winters	[redacted]	
Co-Supervisor	Dr James Robson		

SECTION C: APPLICANT'S FIELD OF STUDY (if applicable) / TITLE OF RESEARCH PROJECT / STUDY

Degree	DPhil Education
Research project or title	Supporting students in gaining epistemological access to online learning environments in higher education
Research proposal attached	√ ☐ Yes ☐ No
Target population	[redacted] staff and students involved in extended curriculum programmes
Number of [redacted] staff required	Approx. 10-15 staff participants
Research method	√ ☐ Interviews ☐ Questionnaire
Amount of time required for the above	Time required for data collection component of the project: over the course of the 2022 academic year (i.e. max 1 year). Interviews will be approx. 40mins to an hour each.
Lead Researcher details	Lara Karassellos (same as above)

SECTION D: FOR OFFICE USE (Approval status to be completed by the Executive Director, Human Resources or Nominee)

[redacted] Proof of ethical clearance status attached	☑ Yes	☐ No	
Proof of ethical clearance status from the University/Institution, if registered outside of [redacted]	☐ Yes	☐ No	☑ Not Applicable

Support or approval			Role	Signature	Date
Supported?	☑ Yes	☐ No	[redacted]		20/01/2022
Approved?	☑ Yes	☐ No			21/01/2022

Appendix C: Information sheet – staff

UNIVERSITY OF OXFORD
DEPARTMENT OF EDUCATION

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general.enquiries@education.ox.ac.uk www.education.ox.ac.uk

Director Professor Jo-Anne Baird



Supporting students in gaining epistemological access to online learning environments in higher education.
Information for Participants

Invitation

You are being invited to take part in a research study. Before you decide to participate, it is important to understand why the research is being conducted and what your participation entails. Please take time to read the following information carefully. Please ask if there are any aspects of the project that are unclear or if you would like more information. Take time to decide whether or not you would like to take part in this research.
This research has been granted ethical approval by the [redacted] Reference: CHED2021_26_ Karassellos).

What is the purpose of the study?

This study explores how students can be better supported in developing the academic and digital literacies they require to succeed in online learning environments in universities. This study will investigate the online teaching and learning practices within different disciplines, and how these could potentially be improved to better support students.

Why have I been chosen?

This study is seeking the perceptions of academics and students who have engaged in online teaching and learning practices in extended curriculum programmes at South African universities. You have been identified as someone with insight into these complex issues. The hope is that by collaborating with both students and academics in this space, we can design interventions or improvements that will better support students in online learning environments.

Do I have to take part? What are the risks and benefits of taking part?

It is your decision to take part in this study. You can decide to stop participating at any time. You do not need to answer questions that you do not wish to. All data collected will be anonymised and every effort will be made to preserve confidentiality. You will not be asked to disclose any personal or demographic data, such as race, gender, or socioeconomic status. Please note, however, that given the highly detailed and descriptive nature of this ethnographically-informed case study research, you may be identifiable in the final report. There is the risk that in recounting your experiences of working under emergency conditions and high stress over the last few years feelings of distress may be triggered.
[redacted] counselling services in person and online for [redacted] staff. Telephonic counselling: Toll free number: [redacted] app lets you chat live with an [redacted] counsellor & gives you & your family access to 24/7/365 EWP info on your health & wellness needs. - [redacted]
Please call me: [redacted]
E-mail – [redacted]
The researcher will be able to assist you in this regard.
Other than this, there are no known risks to taking part. The benefits include helping to advance our understanding of teaching and learning practices in online learning environments, and contributing to the development of online teaching and learning best practices. Your insights will be valuable in this regard.

What will happen to the results of this research?

The results of this research will form the basis of an Oxford doctoral dissertation. Some results may be published in academic journals. If you wish to obtain a copy of the published results, please inform the researcher. The study will take place over the next two to three years after which time the published results will be publicly available.

Who is funding and organizing the research?

The research is funded and organized as an independent doctoral research project in conjunction with the Department of Education, Oxford University.

Contact for Further Information, Follow-up, or Complaint

Should you have any further questions about this research, or if you would like to make a complaint about the research, please feel free to contact: lara.karassellos@education.ox.ac.uk. Alternatively, you can contact the University of Oxford's Department of Education directly: general.enquiries@education.ox.ac.uk or +44 (0) 1865 274024.

Appendix D: Information sheet – students

UNIVERSITY OF OXFORD
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general.enquiries@education.ox.ac.uk www.education.ox.ac.uk

Director Professor Jo-Anne Baird

Supporting students in gaining epistemological access to online learning environments in higher education.
Information for Participants

Invitation

You are being invited to take part in a research study. Before you decide to participate, it is important to understand why the research is being conducted and what your participation entails. Please take time to read the following information carefully. Please ask if there are any aspects of the project that are unclear or if you would like more information. Take time to decide whether or not you would like to take part in this research.
This research has been granted ethical approval by the [redacted] Reference: CHED2021_26_ Karassellos).

What is the purpose of the study?

This study explores how students can be better supported in developing the academic and digital literacies they require to succeed in online learning environments in universities. This study will investigate the online teaching and learning practices within different disciplines, and how these could potentially be improved to better support students.

Why have I been chosen?

This study is seeking the perceptions of students and academics who have engaged in online teaching and learning practices in extended curriculum programmes at South African universities. You have been identified as someone with insight into these complex issues. The hope is that by collaborating with both students and academics in this space, we can design interventions or improvements that will better support students in online learning environments.

Do I have to take part? What are the risks and benefits of taking part?

It is your decision to take part in this study. You can decide to stop participating at any time. You do not need to answer questions that you do not wish to. This study will include various activites, such as interviews, focus groups, and observations. You can choose which activities you would like to participate in, or you can decide not to participate in any activities. All data collected will be anonymised. You will not be asked to disclose any personal or demographic data, such as race, gender, or socioeconomic status. This study does not seek to probe into any of the above potentially sensitive issues. Our conversations in the interviews and focus groups regarding your experiences of learning at university may, however, trigger memories or feelings of marginalisation or exclusion, possibly stemming from race, gender, or socioeconomic status. These conversations will be handled with care and sensitivity, and you are not expected to discuss anything you do not feel comfortable with disclosing. If you feel distressed by the issues arising from the research you may contact [redacted] (after hours). [redacted] Care Line is a 24-hour counselling service in collaboration with [redacted] Send an SMS to [redacted] someone will phone you back. This service is available 24/7. The researcher will be able to assist you in this regard.
Other than this, there are no known risks to taking part. The benefits include helping to advance our understanding of teaching and learning practices in online learning environments, and contributing to the development of online teaching and learning best practices. Your insights will be valuable in this regard.

What will happen to the results of this research?

The results of this research will form the basis of an Oxford doctoral dissertation. Some results may be published in academic journals. If you wish to obtain a copy of the published results, please inform the researcher. The study will take place over the next two to three years after which time the published results will be publicly available.

Who is funding and organizing the research?

The research is funded and organized as an independent doctoral research project in conjunction with the

Department of Education, Oxford University.

Contact for Further Information, Follow-up, or Complaint

Should you have any further questions about this research, or if you would like to make a complaint about the research, please feel free to contact: lara.karassellos@education.ox.ac.uk. Alternatively, you can contact the University of Oxford's Department of Education directly: general.enquiries@education.ox.ac.uk or +44 (0) 1865 274024.

Appendix E: Consent form

UNIVERSITY OF OXFORD
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Director Professor Jo-Anne Baird



Research Consent Form

Project Title: Supporting students in gaining epistemological access to online learning environments in higher education
Researcher: Lara Karassellos

Declaration of Consent: I have read the participant information sheet and have had the opportunity to ask questions about the study and receive satisfactory answers to questions.

I understand that I may withdraw from the study without penalty at any time by advising the researcher, and any data already recorded will be discarded

I understand that this project has been reviewed by, and received ethics clearance through, the University of Oxford's Central University Research Ethics Committee, as well as the [redacted] Research Ethics Committee.

I understand that my personal data will be treated in total confidence, kept securely in a password-controlled server; and what will happen to the data at the end of the project

I understand that I will have the opportunity to review and comment on any analysis before

publication. I understand how to raise a concern and make a complaint, and agree to participate in

this study.

I agree to voluntarily take part in this study.

I confirm that I have read the associated information sheet and understand the intent and purpose of this research.

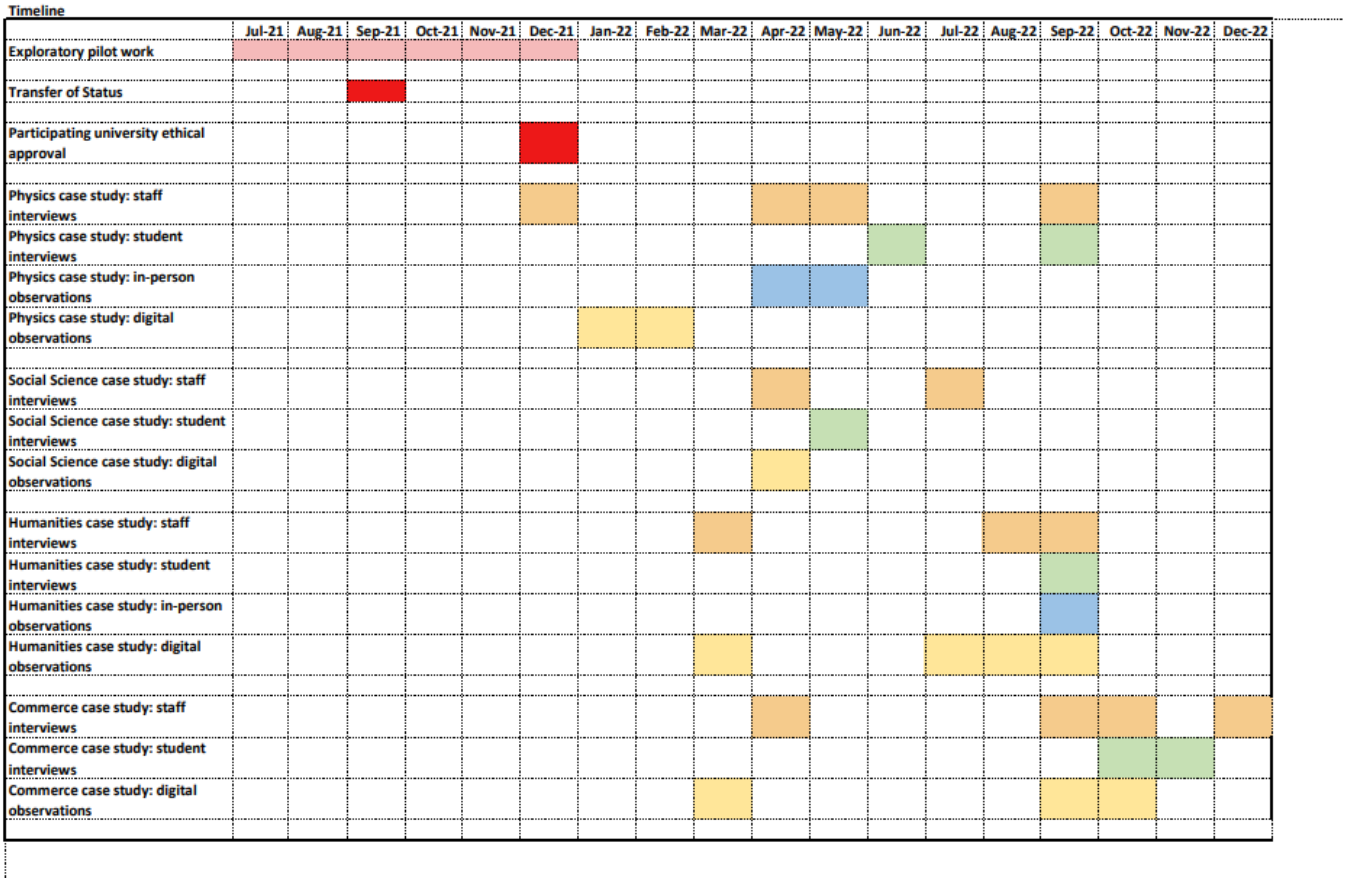
I agree that data captured by this research can be shared among the research team on this project.

Name of Participant: _____ Email:_____

Signature: _____ Date: _____

Name of Researcher_____ Signature and Date: _____

Appendix F: Data collection timeline



Appendix G: Example of an interview guide

Questions and topics of discussion for both students and academics:

What obstacles have you experienced with online teaching and learning? What are the opportunities? When contact teaching is allowed again, what will you retain in terms of online teaching and learning that you have found advantageous over the last two years? Which aspects of contact teaching and learning are you looking forward to getting back? Which aspects of this course/discipline are well-suited to online teaching and learning, and which aspects do you feel require contact teaching and learning?

What does it mean to be a 'knower' or knowledge producer in this discipline? How would you describe this person? How do you become a knowledge producer in this discipline?

How is this discipline different from others?

Is knowledge in this discipline very specialised? Is it applicable to everyday contexts?

Which kinds of digital literacies are important in this discipline? Information search and evaluation? Navigating social media? Online presentations? Online communication?

What is expected in assessments in this discipline? How are students assessed? What does a 'pass' look like? What does a 'first' look like?

Do you post your blog publicly? Do you feel self-conscious about sharing it and having others see your writing?

Talk around texts – talk me through how you prepare for and write the blogs.

What is the content of this discipline? How is it selected?

How is the learning journey sequenced in this discipline? How important is sequencing?

What is the pace of teaching and learning in this discipline? How is it determined? @students – how do you feel about the pace of work in this discipline? Too fast? Too slow? How much control and autonomy do you have over the pace of your own work?

What is your experience of the live class, do you find it fast-paced? Difficult to keep up? Do you feel self-conscious about posting your opinions? Does the pace impact that? If you had more time to write your answer, would you feel more confident in it?

Which space do you feel most comfortable writing in?

Do you often go back to re-look at the live class chat room?

Is there a hierarchy in the online learning environment? Is it implicit or explicit? Does it differ from the hierarchy present in the contact learning environment? Is a hierarchical environment necessary for teaching and learning in this discipline?

Do you feel the live class is quite informal with your lecturers? How does this compare to the Whatsapp group?

Questions for students around digital inequality and digital literacy:

Talk me through a day of online learning. What devices do you use? Where do you access those devices? Where and how do you access data? Is your internet connection fast enough for the work you need to do? Do you have autonomy over your access to the online learning environment? Are you sharing devices with anyone? Is your time online restricted in any way? When you are not doing your university work, what other activities do you use the internet for?

Do you feel that lack of access to appropriate devices, data, or study space poses an obstacle to your learning? In what ways?

Do you feel you have sufficient support in the online learning environment? Who is supporting you - academics, friends, family, others?

What was your exposure to online learning at school? Did you feel prepared for the level of online learning expected at university? How did you make this transition? Where did you seek support?