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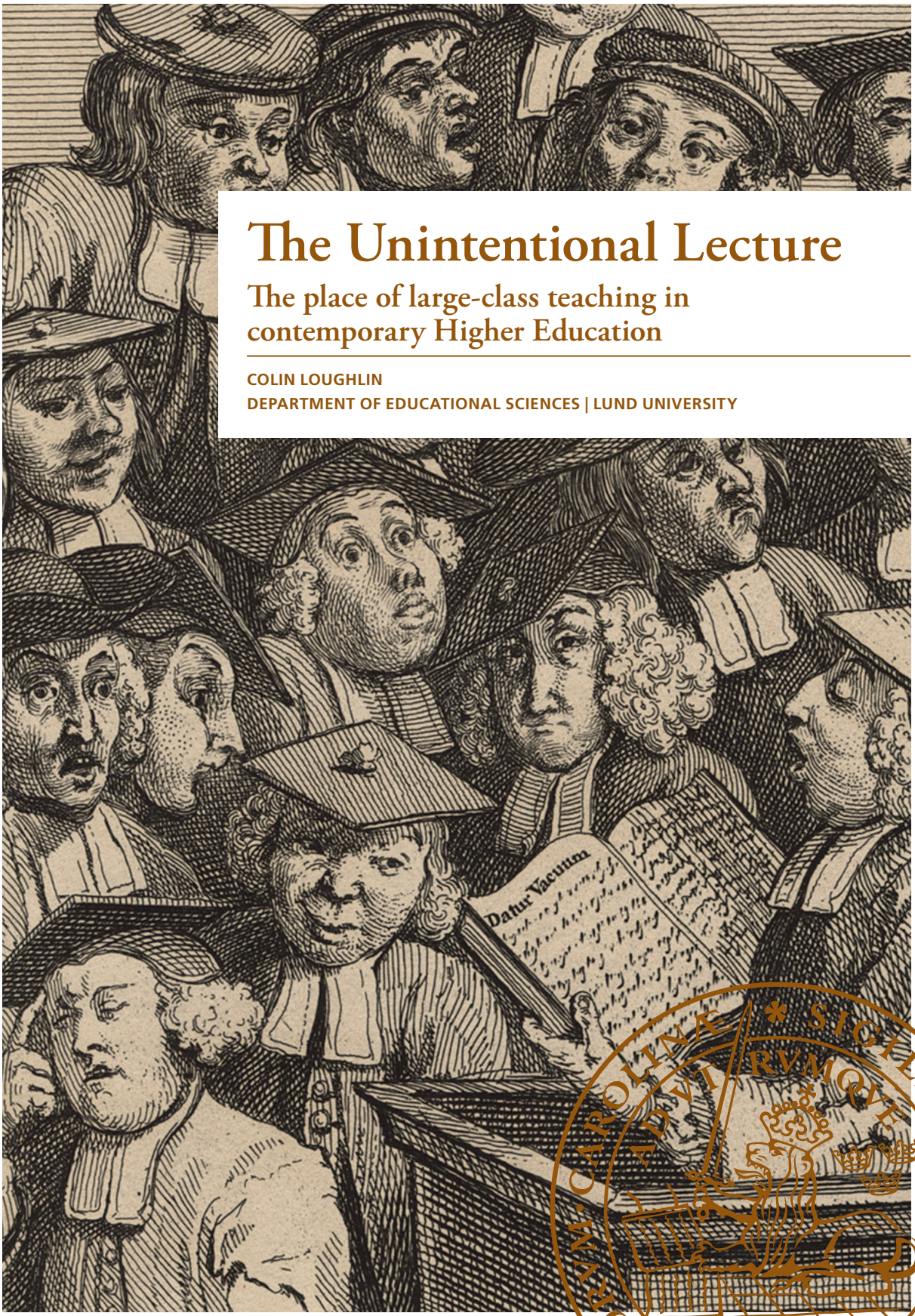

The Unintentional Lecture

The place of large-class teaching in contemporary Higher Education

COLIN LOUGHLIN
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COLIN LOUGHLIN is Head of Digital Education at Brunel University of London. His work involves promoting the effective use of digital technologies in learning and teaching within the institution.

The Unintentional Lecture explores the enduring dominance of transmissive large-class lectures in higher education, despite decades of advocacy for student-centred, constructivist learning. This thesis offers a critical examination of the disconnect between universities espoused educational values and their observable teaching practices. Through a complex interplay of curriculum theory, institutional policy, and teaching practice, it interrogates why transmissive lectures persist and what value they hold for institutions, lecturers, and students.

Spanning three interconnected research projects - a critique of constructive alignment, a case study on large-class teaching, and an interview study with senior educational leaders - this thesis reveals the generative mechanisms shaping the continued use of large, fixed-seat lecture theatres. The findings highlight the tension between theoretical ideals and practical constraints, demonstrating how tradition, habit, and institutional inertia reinforce the lecture's place as a cornerstone of higher education.

By shedding light on the decision-making processes behind the construction of lecture spaces and the normalisation of transmissive teaching methods, this thesis challenges the status quo and calls for a more reflective, intentional approach to pedagogy. *The Unintentional Lecture* is aimed at policymakers, educators, and scholars seeking to bridge the gap between educational aspirations and the lived realities of university teaching.

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Abstract:

This thesis uses a critical realist theoretical framework to explore the complex interplay between curriculum theory, policy, and teaching practice in the context of large-class lectures in higher education. The study is anchored in an analysis of the coherence between universities espoused educational values and their observable teaching practice.

A substantial proportion of face-to-face teaching in higher education is in the form of transmissive lectures in tiered, fixed-seat, auditoria. Yet, previous research has suggested that transmissive lectures are less effective than the constructivist, student-centred approaches advocated by educational theorists, academic developers, and quality assurance policies; therefore, the research interest is why lectures persist, and what perceived value they have for institutions, lecturers, and students.

The four articles which comprise this thesis emanate from three research projects; a critical reflection on how constructive alignment, a key concept in curriculum design, translates into practice; a case study of large-class teaching; and interviews with senior educational leaders representing sixteen higher education institutions.

The analysis of constructive alignment highlights a tension between the theoretical ideals and its implementation in practice, which is often compromised in large lecture settings.

The case study examines perceptions of large-class lectures among staff and students. The findings reveal that both groups view lectures as an inexorable aspect of higher education, and are often used out of habit and institutional inertia, rather than as a deliberate pedagogical choice.

Interviews with senior educational leaders explored the rationale behind continued investments in large, fixed-seat lecture theatres, despite the growing emphasis on student-centred learning. Educational commitments appeared dominated by financial and logistical considerations, when confronted with the practical realities of large-class teaching

The findings of this thesis have significant implications for higher education policy and practice. It argues that the large-class lecture is a deeply entrenched, yet often unintentional, feature of higher education. Its status as 'traditional' contributes to a normalisation process that renders it invisible and unquestioned as a pedagogical method.

Key words: Higher Education, Educational Policy, Educational Theory, large class lectures, Student-centred Learning.

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Cover image: ***Scholars at a Lecture*** (William **Hogarth, 1736)**
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Table of Contents

Acknowledgements

My professional and educational journey would not have been possible without the support of marvellous colleagues, friends, and family. Far too many to mention here, and I apologise in advance for the glaring omissions which will become apparent immediately this manuscript is committed to print.

Throughout my studies I have been working in educational technology, and have been indulged in my academic ambitions by several department heads at the universities where I have been employed. In addition to my current head of department, Paul Glassey, I would particularly like to mention Steve Warburton and Rhona Sharpe who have provided both professional and academic opportunities and mentorship over the years.

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I began my PhD studies in the Department of Educational Sciences at Lund University expecting to follow my established pattern of private study and individual learning. I was in for a shock. Never previously having studied as part of a cohort, I was not completely sure what to expect. However, if you were to design an idealised version of a PhD cohort, I imagine it would operate something like ours. Intellectual stimulation, academic support, and most importantly laughter, have fuelled my educational journey at Lund, and I will treasure the time spent with Jonatan, Emil, Ylva, Paul, Tina, and Helena; along with more recent cohorts including Sara, Maria, Linnea, Elna, Fatemeh, and Bodil.

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To all, my unalloyed thanks! Without you, this journey would not have been possible, or *nearly* so enjoyable.

Abstract

This thesis uses a critical realist theoretical framework to explore the complex interplay between curriculum theory, policy, and teaching practice in the context of large-class lectures in higher education. The study is anchored in an analysis of the coherence between universities espoused educational values and their observable teaching practice.

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List of Papers

Paper I

Loughlin, C., Lygo-Baker, S., & Lindberg-Sand, Å. (2021). Reclaiming constructive alignment. European Journal of Higher Education, 11(2), 119–136. https://doi.org/10.1080/21568235.2020.1816197

All authors together developed the conceptual perspective used in the article and contributed to the first draft. I wrote subsequent drafts and responded to revisions suggested by the journal.

Paper II

Loughlin, C., & Lindberg-Sand, Å. (2023). The use of lectures: Effective pedagogy or seeds scattered on the wind? Higher Education, 85, 283–299. https://doi.org/10.1007/s10734-022-00833-9

I designed and conducted the case-study research, carried out the interviews, focus groups and analysis. Both authors together developed the theoretical perspective. I wrote the original and all subsequent drafts, and responded to revisions suggested by the journal.

Paper III

Loughlin, C., (2025). The Illusion of attendance: A critical study of large-class lectures. Teaching in Higher Education. (accepted and awaiting publication) https://doi.org/10.1080/13562517.2024.2441183

As with paper II (this article draws on the same case study). In this case, I developed the theoretical perspective and am the sole author of all drafts and revisions.

Paper IV

Building Higher Education (submitted manuscript)

I designed and conducted the research. I am the sole author of this paper.

Chapter 1: Introduction

> *"The ideal lecture theatre is vast, truly vast. It is a very sombre, very old amphitheatre, and very uncomfortable. The professor is lodged in his chair, which is raised high enough so that everyone can see him; there is no question that he might get down and pester you […] There are a great many students, and each is perfectly anonymous." ([student 1963] Bourdieu et al., 1996, p. 1)*

My first experience of a university large fixed-seat, tiered lecture hall was as a teacher. I left school at age sixteen and completed my first degree as a distance learner; it was my commercial background in computing that led to the invitation to give a guest lecture to several hundred undergraduate computer science students. My understanding of university lectures until that point was entirely vicarious, the product of films, books, and anecdote. Throughout my lifetime, and across all media, the portrayal of university teaching in large, tiered lecture halls has been consistent and ubiquitous. Like many lecturers and students, before and since, the raked theatre and transmissive lecture met my implicit expectations of university teaching.

My subsequent career in educational technology gave me the opportunity to undertake a master's degree, for which I studied student note-taking in a large-class lecture series. The cohort of over 200 dwindled to less than 25 by the last lecture, yet most of the students passed the module with good grades. This puzzled me, and I began to contemplate the purpose of large-class lectures, and the role they were expected to play in student learning.

As a result of some pedagogical research and study, I became aware of the recurrent debate surrounding the role of the traditional transmissive lecture within the educational paradigm of higher education. And in 2016, I attended a conference celebrating the 100th anniversary of the book *Democracy in Education*, which contains the following quote:

> 'Why is it, in spite of the fact that teaching by pouring in, learning by a passive absorption, are universally condemned, that they are still so entrenched in practice? That education is not an affair of "telling" and being told, but an active and

> constructive process, is a principle almost as generally violated in practice as conceded in theory.' (Dewey, 2012, p. 44)

One hundred years on from this quote the transmissive lecture remains at the heart of contemporary higher education. It is therefore Dewey's question which forms the genesis for this research.

The demise of the lecture method has been prophesied almost since its inception, and is regularly so now too. However, there is also a great deal of affection for the lecture, and many find it difficult to imagine a fulfilling university education without them; 'I have always regarded a lecture as the fundamental ritual of academic life' (Furedi, 2013). What is it about the lecture method that excites such passions?

A great deal has been written that considers the efficacy of *the lecture* in Higher Education. The purpose of this thesis, however, is to address some of the assumptions, expectations, and motivations, of students, academics, and institutions, which ensure that the lecture remains integral to teaching practice; and to understand its place within the espoused educational values of contemporary higher education.

The Research Interest

Dewey's question relates to school-level education, whereas this research concerns higher education, and specifically large-class teaching. Can the same question be applied to this setting? To what degree is the transmissive university lecture universally critiqued, or alternatives promoted? Are "active and constructive" approaches to learning and teaching "almost as generally violated in practice as conceded in theory?"

To address these questions, the research looks at policy, curriculum design, quality assurance processes, and teaching practice, to assess the extent to which constructivist, student-centred approaches to learning and teaching are promoted, extolled, or prescribed; and the extent to which they might be "violated".

The issues discussed in this thesis are common to the majority of the higher education sector around the world, however, it addresses European and UK policy specifically, and the empirical work was conducted within UK universities. A description of the research papers and how they address these questions is detailed later. But firstly, I would like to clarify some of the terms used, and how I will be applying them in this thesis.

Lectures mean many different things to many different people, and so, the next part of this introduction will be spent defining what the lecture is, and more importantly, is not, for the purposes of this thesis.

The Lecture Hall and the Lecture

The Lecture Hall

The physical space of the lecture hall is referred to here, and in the literature, by a host of designations including lecture hall, lecture theatre, and auditoria. What is meant in the context of this thesis is large, often fixed-seat and tiered (raked) spaces, which offer the student little opportunity for interacting with their peers. As the reader will be reminded regularly, the physical space does not dictate the approaches to learning and teaching, with student-centred approaches potentially taking place in large lecture halls, and teacher-centred approaches potentially taking place in small interactive classrooms. However, the balance of literature suggests that large, fixed-seat lecture theatres encourage teacher-centred approaches, and interactive spaces student-centred approaches (Baepler et al., 2023; Temple, 2009).

The Lecture

There is no commonly accepted definition of a lecture, 'few rules', and 'no more agreement about what is a good lecture than there is about good music' (Bligh, 1972, p. 9). Bligh relented slightly in a later edition of *What's the Use of Lectures*, and said that he regarded the 'lecture as a period of more or less continuous exposition by the teacher' (2000, p. 5).

The lectures envisioned in the discussions within this thesis and the appended papers are those of mass education. Not the exceptional lectures that students remember for the rest of their lives, or the terrible (nonetheless equally memorable) ones; but the everyday – the lectures of an average weekday morning delivered by a competent academic to a large group of students in a suitably large lecture hall.

Descriptions of the lecture in academic literature encompass almost every imaginable pedagogic form, particularly in heated debates about whether lectures are good or bad. Furthermore, many of the discussions in academic literature on the nature of lectures rely on implicit assumptions about what a lecture is, has been, or could be. Some of these assumptions will be explored in Chapter 5.

Much empirical work on the nature and efficacy of lectures does not differentiate between pedagogic approaches taken or the class size involved. Some do not even differentiate between whether the lectures are in-person or delivered online. For the purposes of this thesis (which is concerned with large-class lectures), the lecture is a 'live', in-person event.

What is *not* a lecture in the context of this thesis

As mentioned, the literature is varied and many different forms of teaching, and even performance, are sometimes included in the term. However, to be clear, within

the context of this thesis the focus is on lectures within the university context, usually within a taught module or course, and conducted by the academics teaching on that programme.

And so, the following are excluded from this definition:

- Public Lectures
- Guest Lectures
- Video/Online Lectures
- Demonstrations
- Labs
- Interactive lectures/Active learning
- Lectures in a tutorial system (where the majority of teaching takes place in small group tutorials)

Active learning lectures, and those within a tutorial system (common in elite university settings) are not included as they serve a different purpose to the lecture of the mass education under discussion, and are not therefore subject to the same analysis.

As Bligh asserts there is not one 'lecture method', or indeed one 'active learning' method, the myriad approaches taken do, however, fall into two broad categories: 'student-centred' or 'teacher-centred'.

Student-Centred Learning

The term 'student-centred' is used to indicate learning-oriented active learning approaches in-line with constructivist (social-constructivist) ideals, in that objective knowledge is moderated by the individual student, based on prior understandings and experience. In the classroom it would be expected that some, or even most, of the teaching session involves the students actively participating in the teaching session (Lancaster, 2017). In a meta-study of learning approaches, Freeman et al distinguished between traditional lectures and active learning: 'Active learning engages students in the process of learning through activities and/or discussion in class, as opposed to passively listening to an expert. It emphasises higher-order thinking and often involves group work' (Freeman et al., 2014, p. 8414).

In the context of curriculum design, student-centredness encompasses the notion that students should have agency in selecting both what and how they study (Trigwell & Prosser, 2020). However, the extent to which this can be realised within the frameworks of contemporary universities is questionable. The implementation of modularisation, which is the intended standard across all European undergraduate programmes as a consequence of the Bologna declaration, offers a structure that affords students some degree of choice in the selection of modules (O'Neill & McMahon, 2005).

‘The constructivist stance, which holds that learners create their understandings via their activities and experiences of/in the world, is often the starting point for proponents of student-centred teaching’ (Ghafar, 2023, p. 2). The importance of a physical learning environment to facilitate student-centred learning was stressed in much of the literature from the early 2000s onwards: ‘[T]eachercentric classrooms should be redesigned to take into account modern learning theories. This environment fosters students' development as creators, thinkers, and planners of their own education’ (Ghafar, 2023, p. 2).

While the conception of student-centred learning can extend into student autonomy and involvement in co-designing their own curriculum, the primary concern here is the in-person teaching events, and the extent to which they facilitate active and constructive learning and teaching experiences.

Teacher-Centred Learning

‘Teacher-centred’ is used to indicate more transmissive, content-oriented approaches to learning and teaching.

Traditional instructional methods are often grounded in a positivist epistemology, where information and concepts are isolated from their natural contexts (Dewey, 2012), meaning is viewed as objective and independent of the learner, and the achievement of externally defined learning outcomes serves as evidence of knowledge acquisition. In contrast, student-centred approaches are based on a constructivist epistemology, which posits that knowledge and context are inherently linked, meaning is individually constructed through experience, and understanding is demonstrated through the resolution of authentic, real-world problems (Hannafin et al., 1997).

By transmissive it is meant that the lecturer does the majority of the talking (and the students are expected to listen and take notes), for most, if not all of the teaching session. This form of pedagogy is often referred to as ‘traditional’, and so the term ‘the traditional lecture’ also regularly features in the literature.

Traditional teacher-centred pedagogy is typically characterised by the teacher assuming primary responsibility for the transmission of knowledge to students. From this perspective, the teacher’s subject matter expertise positions them as the most qualified to determine the structure and content of the learning experience. Teacher-centred approaches are often associated with the use of lectures as the main method of instruction. The primary objective in such a classroom is the dissemination of a relatively fixed body of knowledge, determined by the teacher. This lecture-based format is generally seen as a unidirectional process, where the teacher delivers content based on their expertise, rather than shaping the classroom experience around the questions or input of students (Lancaster, 2017).

Again, the definitions and discussions of teacher-centred pedagogy extend beyond the classroom and encompass issues such as Foucauldian power relations (Marshall, 1989), and authority figures (Ghafar, 2023; Morelock et al., 2017); however, the term used here is intended to convey only that the in-person teaching event is primarily transmissive, with little interaction on the part of students.

Class Size

There is no absolute number or configuration for what constitutes 'large-class' teaching. Most of the literature settles on a figure of around 50-60 (Maringe & Sing, 2014; Mulryan-Kyne, 2010). Typical large-class lecture theatres at UK universities have capacities of 150-500, while the largest lecture-theatres in regular use now have capacities of up to 1500. These lecture theatres are often fixed-seat and tiered (raked).

The above clarifications are not intended to provide alternative, or definitive determinations of the terms used, but merely to explain how they are interpreted in this thesis and the accompanying articles.

"Oh, but I like lectures!"

Is the most commonly received response when describing this project to colleagues, friends, and family; as if, after nearly a millennium of uninterrupted usage, this thesis will lead to the demise of the traditional lecture.

To reassure the faint of heart, that outcome is unlikely. Montaigne, Rousseau, Tolstoy, Dewey, and just about every other educational theorist have roundly condemned the transmissive lecture method, yet it continues unabated. Therefore, the prospects for *this* research precipitating its downfall would seem slight.

And that is not its intention; the purpose of this research is to try to understand the resilience of the lecture in the face of what would seem to be insurmountable odds. Educational theorists advocate against it; every technological development from the printing press, through radio, television to the computer, have been linked with its passing; quality assurance policies and educational developers attempt to design it out of practice, and students abandon it in huge numbers.

The lecture remains, unbowed and resolute.

> 'After decades of repetition – from John Dewey to Ken Robinson – it seems that the question to ask is not when will educational institutions change, but rather why they are so *un*changing'. (Friesen, 2017, p. 6)

The purpose of this thesis is therefore, to develop a better conception of the place of the lecture within contemporary higher education. The appended papers view the place of the lecture from the perspective of higher education policy, quality assurance, institutions, lecturers, and students. The focus is on exploring the congruence (or incongruence) of the intentions of the curriculum, the practice of large-class teaching, and the perception of staff and students who experience it.

Chapter 2: The University Lecture

> *"Now every tradition grows ever more venerable--the more remote is its origin, the more confused that origin is. The reverence due to it increases from generation to generation. The tradition finally becomes holy and inspires awe." Nietzsche [1878] (1908, p. 96)*

This chapter is intended to provide some further context for the term 'lecture' as it is used in this thesis. As mentioned in the introduction, there is no commonly accepted definition of the lecture and practice varies widely, from teacher-centred and transmissive, to student-centred and interactive. And so, by tracing some of the milestones in the development of higher education, contemporary criticism, and the discourse in defence of the lecture method, it is hoped to shed some light on current academic practice. As John Dewey wrote, 'the way to get insight into any complex product is to trace the process of its making – to follow it through the successive stages of its growth' (Dewey, 2012, p. 228).

The chapter concludes with a brief discussion of the lecture as *tradition*. Hannah Arendt suggests that the deliberate invocation of tradition began with the Romans, who used an association with Greek culture to legitimise and aggrandise their own (Arendt, 2006). This section considers the framing of the lecture as traditional and whether that framing contributes to a normalisation of the format which allows it to evade scrutiny.

A Brief History of the University Lecture

There are many possible histories of the lecture in higher education, this one is primarily the European perspective and maintains a focus on aspects of lectures and lecture theatres which are relevant for this thesis.

The Early Period (Middle Ages to Renaissance)

Medieval universities in Europe, date back to the 11th century. Many of these early universities were religious institutions where they taught theology, law, medicine, and the seven liberal arts. This system of education originated in Classical Greece,

was further developed by Roman scholars, and then adopted and refined by Medieval European scholars and represents the core of Western educational tradition (W. Clark, 2007).

These early (pre-printing press) universities were typically small, and instruction often took the form of transmissive lectures, knowledge transferred verbatim from scholar to scholar (Lawson & Silver, 2013; Lindberg, 2017).

In France in this period, there were two categories of lectures: "ordinary" lectures, which were intensive sessions delivered by senior professors in the mornings, and "cursory" lectures, which were shorter and less in-depth, given by junior faculty members later in the day. University records from the period describe lectures as settings where entire books or volumes were "heard".

> '[T]he the University of Paris required that before the student could be "admitted to examination he shall give personal security that … he has heard the books of Aristotle […] at least twice in ordinary lectures and once cursorily […] Students for their part were sometimes known to send servants to take their notes for them' (Friesen, 2017, pp. 114–116).

Whether hearing something once is sufficient to ensure knowledge transmission is a notion that continues to intrigue contemporary pedagogy (as discussed in paper III).

The teaching that took place in universities in the fourteenth and fifteenth centuries reflected the nascence of the printing press and the limited availability of printed books. Lectures often involved dictation in order to preserve original texts, although the practice was contested even at this early stage. In early empirical pedagogic research, Lindberg (2017) reports that, the practice of 'dictating to the pen' was discouraged, yet it continued to take place. In 1355, a trial in Paris was conducted to determine whether students learned more effectively through dictation or from a faster, more dynamic style of delivery. The outcome favoured the latter, leading to the prohibition of dictation. However, this ban proved difficult to enforce and was eventually repealed in 1457. The use of dictation, along with its critiques, has been a recurring theme throughout the history of the lecture

Dictation was also prohibited in German universities in the sixteenth-century, and again in the eighteenth (W. Clark, 2007). The debate continues in contemporary higher education, particularly in the literature on notetaking during lectures (Loughlin, 2015). Transcription and rote learning are discussed in papers II and III.

The Seventeenth and Eighteenth Centuries

In this period, the total student numbers at Oxford, while increasing, were still at a level below some *individual* contemporary cohort sizes (i.e., less than 1500

students). In terms of pedagogy, lectures were not much commented on in university documentation (Lindberg, 2017).

Attendance at lectures was contentious from the early days of the university. Often academics and students demurred; the 1626 Swedish constitutions imposed fines on professors who failed to deliver their lectures and threatened students with expulsion if they neglected to attend. Consistory records from the 17th century, however, reveal that lectures were frequently disregarded by both professors and students. They indicate that lectures were often postponed and students routinely missed them (Lindberg, 2017).

Towards the end of the eighteenth century, as printed textbooks became more widely available, the value and purpose of the lecture fell into question. Attendance declined where not a requisite part of the degree award; while lecturing was often still required as part of the professorial role, 'which, given low enrolments, might have meant playing to an empty hall, and all too often did' (W. Clark, 2007, p. 83).

Across Europe the use of lectures declined, and in the English universities, lectures almost completely disappeared in the course of the 18th century (Lindberg, 2017). In response, English universities shifted towards the *tutorial system*, which emphasised intellectual engagement between the teacher and individual students.

> 'The medieval student had been obliged to swear or even produce testimonies that he had attended all the required ordinary lectures. The early modern Protestant student, however, only had to pass the relevant examinations […] The earlier university-wide lectures by the regent masters had pretty much disappeared, while professorial lectures went unvisited or ungiven or both. The college tutors at Oxbridge had taken control and care of the education of bachelor's candidates' (W. Clark, 2007, p. 81).

To give an indication of scale during this period, in Germany, 'each faculty had rights to a hall of its own. Public lectures had to be held there, excepting in winter when they could be at the professor's home' (W. Clark, 2007, p. 81).

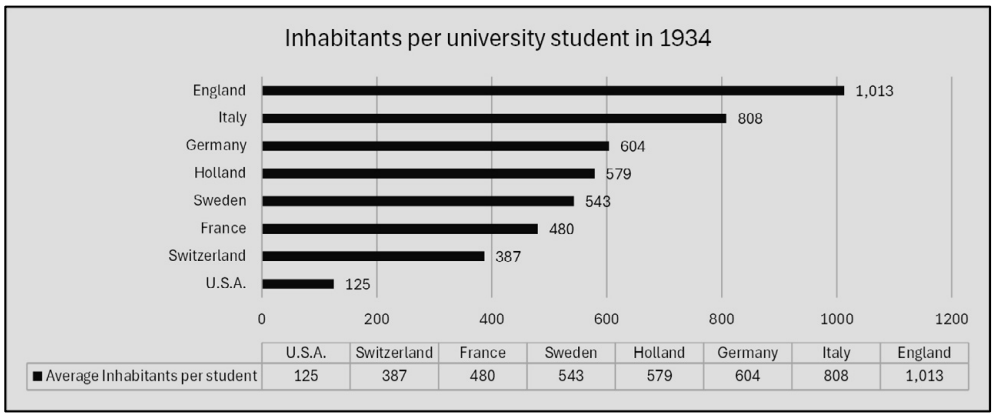
The Modern University (nineteenth and twentieth centuries)

Oxford and Cambridge remained largely devoted to the education of gentleman, principally for service to church and state (Gillard, 2018). (The term "gentleman" referred to a man who was a member of the landed gentry or aristocracy, and indicates noble or semi-noble lineage). It was Europe, and particularly Germany that drove progress during the nineteenth century, pioneering instructional methods that emphasised expanding the boundaries of knowledge.

Wilhelm von Humboldt was appointed to reform the Prussian education system and founded the University of Berlin in 1810. The specialised professor and the single-discipline department, hallmarks of the German system, were widely emulated. Consequently, universities in Europe increasingly integrated teaching with research (Moore, 2019; Perkin, 2006).

The demand for professionals and bureaucrats continued in the latter half of the nineteenth century, fuelled by the industrial revolution and empire building, a raft of new universities were being created in Great Britain. The rapid growth of higher education also provided opportunities for a more diverse student body. By 1914, the growth of scholarships and the expansion of teacher training programmes had led to a significant presence of working-class students in some of England's civic colleges. For instance, at Nottingham in 1911, 73 per cent of student teachers and 24 per cent of other students came from lower-middle and manual working-class backgrounds (Gillard, 2018).

This is the first evidence of diversification in the student population. The number of university students in Great Britain as a whole rose from around 20,000 in 1900 (0.06% of the population) to 50,000 in 1938 (0.11% of the population); although, the proportion of the population attending university in England was still lower than in other comparable countries.



In 1934 the average number of inhabitants per university student (Gillard, 2018)

In the UK, post-war restructuring centred on school level reforms; however, the Robbins Report of 1963 saw major changes in British Higher Education, with its recommendations for substantial growth of the sector. Over the next ten years a further nineteen universities were established. The findings of the report relating to lectures were that:

> ‘We have received from both university teachers and student organisations extensive complaints concerning methods of instruction. The substance of these complaints has been nearly always the same: undue reliance on lectures, often delivered with too little consideration of the needs and capacities of the audience, and insufficient personal contact. The remedy generally demanded is the adoption of what is called the 'tutorial system', though what exactly is meant by this is not always clearly defined by those who desire it.’ (Robbins, 1963, p. 186)

Interestingly, given the findings above, the report went on to say that:

> 'Conversely, we are not in sympathy with the view that the lecture is an archaic survival from the days before printing was invented. We think that a well-planned and well-delivered series of lectures can give a sense of proportion and emphasis lacking in tutorial discussions […] Lectures of this kind which lay down principles and survey a subject widely are particularly valuable for first-year students. Attendance at lectures gives them a necessary frame to a week's work, makes them feel a part of a community of learning, and leads to wider intellectual contact with their fellows than membership of small classes alone can give […] On the whole we think that there is little virtue in formal lectures delivered to very small audiences. A lecture should be something of an occasion' (Robbins, 1963, p. 187)

Thus, the remarkable rise in the scale of higher education has continued in the UK. The Further and Higher Education Act 1992 introduced new funding and regulatory rules which allowed thirty-five polytechnics to become universities; and there were further influential government reports (including the Dearing Report of 1997), which again argued for increasing student numbers. A (possibly unforeseen) consequence of the increase in student numbers was the ever-increasing cohort sizes. Cohorts of over one-thousand students are now commonplace, creating challenging logistical issues for university timetabling departments, along with commensurate pedagogical challenges.

At the time of the Robbins Report in 1963, there were 118,000 students in eighteen universities. That number has since risen consistently, doubling since 1993 alone, and currently stands at around two million students in 160 universities (paper IV).

The development of higher education appears unhurried for the larger part of its history. A modest increase in student numbers was accompanied by the gradual influence on pedagogy of the availability of printed textbooks. However, the last two-hundred years have seen dramatic changes in student numbers, technology, and pedagogy, along with the aims and purpose of a university education.

The Lecture Theatre

As student numbers crept up in the seventeenth century, some large 'lecture theatres' were being constructed; however, this is slightly misleading as the buildings of this period could more accurately be described as graduation halls and events spaces.

The Sheldonian Theatre (Oxford) constructed 1664-69: This is the first recorded lecture theatre with a capacity of around one-thousand. Designed by Christopher Wren early in his career, it draws heavily on Greco-Roman motifs. The allure of *the traditional* was particularly strong in this period, and the association with antiquity was intended to add gravitas to the building. The elongated 'D' rectangular design,

which followed the Roman inspiration, re-appeared in the later 'Harvard' style lecture theatres. At the time it was built, a thousand students represented almost the entire student body from Oxford's eighteen Colleges (0.0005% of today's student population in the UK).

In the late nineteenth and early twentieth centuries, a number of large 'lecture' halls were constructed, notably; the Sorbonne's Grand Amphitheater, Bute Hall Glasgow, and the Great Hall at the University of Birmingham. However, these were primarily graduation halls and events spaces. Only Harvard University's Sanders Theatre appears to have been used for everyday teaching.

It was the post-war period that saw the development of very large, often amphitheatre style, lecture theatres, firstly in North America during the 1950s followed by the UK and other European countries during the 1960s. The Central Hall at York University is an example of this type, with a capacity of around five-hundred. As student numbers and cohort sizes have increased, so have the size of lecture halls, with several universities now boasting auditoria with a capacity of more than one-thousand.

The majority of UK universities now have one or more lecture halls with a capacity of over four hundred. The growth of large cohorts means that not only are the purpose-built lecture halls used for teaching, but almost any venue with sufficient capacity; including graduation and sports halls, events spaces, and even cinemas. The construction and use of large lecture halls is discussed in paper IV.

The Lecture as Pedagogy

To further contextualise the discussion and appended papers, the lecture is now considered in terms of pedagogy. As mentioned in the introduction, this thesis is primarily concerned with the large-scale transmissive lecture, however, it is not always easy untangling specific styles and sizes of lecture in the literature. Quite often the discourse conflates different pedagogies and does not mention class size.

The *large* in large-class teaching

Although the focus of this thesis is large-class lectures, the *large* element of that may be a bit of a red-herring. While most of the literature would suggest that the size of the cohort is negatively correlated with its academic outcomes, it seems far more likely that it is the pedagogy associated with large-class teaching that leads to those outcomes.

Research into class sizes and academic outcomes began in the early twentieth-century; one of the first, Edmonson and Mulder (1924), looked at group sizes of 43

and 109 (relatively small by today's standards), and found a negligible difference in their outcomes. Their research however, sparked a series of studies which mostly tend to report that small cohorts perform better than large, particularly in measures of critical thinking and problem solving. Although weaker students consistently perform worse in large-class environments (Siegel et al., 1959), generally, the differences between large and small cohorts is slight, but favours small groups (Glass & Smith, 1979). In Hattie's meta-analysis of learning and teaching (2009), he found that large classes did impact outcomes, but again, the effect-size was modest.

The suggested reasons for the differences are that:

> 'The larger the class the less sense of personal responsibility and activity, and the less the likelihood that the teacher can know each student personally and adapt instruction to the individual student […] it seems likely that in large classes faculty members typically require less written work and spend more time lecturing and less in discussion' (McKeachie, 1990, p. 190).

Early research into comparisons between lectures and discursive approaches (i.e., constructivist, student-centred) led to much more significant results, with discussion being better for long-term retention and comprehension (McKeachie, 1990).

Many academics have had success in implementing student-centred approaches in large-class environments (e.g., Rodríguez et al., 2022). Eric Mazur developed peer instruction at Harvard in the 1990s with his large-class physics cohorts leading to huge improvements in their outcomes (Fagen et al., 2002).

Thus, it would appear that it is the pedagogy that tends to be prevalent in large-class settings (primarily teacher-centred transmissive lectures), which is related to negative student outcomes, not the size of the class per se.

Traditional lecture method and its criticism

Criticism of the lecture method has existed for almost as long as the format has existed. 'It is labelled old-fashioned "chalk and talk" and has been considered so instructionally ineffective as to be "unethical"' (Friesen, 2017, p. 110); although many academic staff, 'simply cannot conceive of large classes being anything but a 100 percent lecture-and-test-driven routine. But other strategies are possible' (Cooper & Robinson, 2000, p. 14).

As noted earlier, the role of the lecture method has evolved over time as technology and the purpose of university teaching have developed. Fulford and Mahon argue a *philosophical defence of lectures*, in which the 'lecture is the site for, and the possibility of, the passionate utterance' (2020, p. 373), which resonates with the elite tutorial system, where lectures are supplementary to the tutorials, representing a

small proportion of students' contact time with academics. They therefore serve a different purpose to the lectures of mass education with limited contact hours. Quoted in the Harvard Magazine, Eric Mazur says:

> "The danger with lucid lectures—of which we have so many on this campus, with so many brilliant people—is that they create the illusion of teaching for teachers, and the illusion of learning for learners […] Sitting passively and taking notes is just not a way of learning. Yet lectures are 99 percent of how we teach!" (Lambert, 2012)

The illusion of teaching for teachers, and the illusion of learning for learners is explored in paper III – *The illusion of attendance*.

For the majority of students in mass education, lectures can represent most, or in some cases, *all* of their contact time. It is the lecture of mass education that informs this discussion.

A common criticism of (particularly large-class) lectures, is that they fail to address individual differences of existing knowledge and cognitive ability, In the nineteenth century, John Henry Newman asserted that learning 'consists, not merely in the passive reception into the mind of a number of ideas hitherto unknown to it, but in the mind's energetic and simultaneous action upon and towards and among those new ideas' (2014, p. 135), a sentiment echoed through the ages by educationalists.

Disregarding the audience is not merely poor public speaking; it constitutes ineffective teaching because it fails to fully engage students' minds (Mallin, 2017). Learning becomes difficult without engagement. Newman's argument is not against the lecture format itself, but rather asserts that any instructional method must facilitate active engagement with the material and ideas. When lectures fail in this regard, they fall short pedagogically. Furthermore, while neglecting the audience is problematic, failing to acknowledge the diversity within the audience is an even greater issue.

In response to these long-established issues with transmissive lectures, constructivist active learning approaches have been developed and promoted. A series of longitudinal and meta studies over the last few decades provide a consistent picture which supports Bligh's conclusion that the lecture is amongst the least effective approach to learning and teaching. In his 1972 book *The Use of Lectures*, he found across a range of studies that lectures were 'as effective' as other methods for knowledge transmission, but less effective in every other category tested (Bligh, 1972).

Meta studies into the effectiveness of student-centred and particularly active learning approaches to learning and teaching have been a regular topic of research in recent decades, many with similar findings in terms of the inefficacy of the lecture method in comparison.

Hake (1998) analysed pre-test and post-test results from over 6,000 students across 62 introductory physics courses. His analysis showed that courses employing what he described as interactive engagement (IE) methods had significantly higher normalized gains (about 0.48 on average) compared to those using traditional lecture methods (about 0.23 on average). This result suggested that IE methods were much more effective at improving students' conceptual understanding of physics than traditional lecture-based instruction.

John Hattie conducted a meta study of 800 research articles (focused on school level education) and concluded that effective teaching involves actively engaging students in learning, providing clear guidance, and offering feedback rather than merely delivering content passively to students (Hattie, 2009). In his 2015 study which looked specifically at higher education he found that the 'synthesis of the 1200 meta-analyses certainly point to the student as the greatest source of variance in learning' (2015, p. 87), which resonates strongly with the rationale for student-centred pedagogies.

Freeman et al (2014) argue that the evidence from their meta study supports a significant shift away from traditional lecturing towards active learning to improve student outcomes in STEM education.

Similar outcomes can be found in the meta studies and systematic analysis of Strelan et al (Strelan et al., 2020), Ribeiro-Silva et al (2022), and Ryan et al (2021).

> 'Lectures are a common mode of delivery for large classes, as they provide an efficient and cost-effective method for teaching at scale […] it can be challenging to deliver engaging lectures to large classes […] As a result, lecturers often resort to monologue-based instruction, which focuses on information transmission' (Ryan et al., 2021, p. 1385).

Mahler, Neumann, and Tamir (1986) found that students in large classes, where lecturing dominated and opportunities for discussion were limited, exhibited a narrower range of cognitive diversity compared to those in smaller classes. Similarly, McKeachie et al. (1986) argue that constraints on oral participation not only foster passivity but can also be detrimental to the educational process.

There is no body of literature that suggests that large-scale transmissive lectures are an effective teaching method. At best, they are 'as good' in the context of knowledge transmission. And so, to be clear, when higher education corporate literature and educational strategies talk of 'research informed' and 'evidence-based' teaching; the constructivist, student-centred approaches outlined above is the *research* and *evidence* to which they are referring.

Attendance at Lectures

A recurring theme in the history of higher education is the reluctance of academics to give lectures and the reluctance of students to attend them; something which tends to be overlooked when invoking notions of the traditional lecture. Often perceived of as a modern phenomenon, it is as old as the lecture itself, 'with professors sending [senior] students to lecture and students sending their servants to take notes' (W. Clark, 2007, p. 138).

In contemporary higher education: 'On average, two thirds of students are not attending and not downloading lectures beyond week three. This pattern shows up regardless of the size, age or condition of the lecture theatre […] Nor does the discipline matter, or the level of the course taught' (Hughes-Warrington, 2015).

Post-pandemic issues of attendance, and student engagement generally, are attracting more attention, partly because the scale is becoming too big to ignore. A 2022 survey by Times Higher Education revealed that 76 per cent of academics worldwide believed class attendance had declined compared to pre-pandemic levels. Of those surveyed, 29 per cent reported typical attendance rates of between 41 and 60 per cent, while 26 per cent estimated attendance at between 21 and 39 per cent. More recently, some professors in the United States have reported lecture courses with as little as 25 per cent attendance, and academics in Australia have spoken about the challenges of delivering lectures to largely empty theatres (Grove, 2024).

The illusion of attendance on the part of staff and students is discussed in paper III; however, it is an issue which colours any discussion of large-class lectures. Claims or counter-claims as to the efficacy or efficiency of large-class lectures must be made within the context that half, or two-thirds, of the cohort do not go to them.

In Defence of the Lecture

As mentioned in the introductory chapter, discussions of lectures excite a great deal of passion among academics, and whenever a study or opinion piece appears suggesting that the lecture is ineffective or should be replaced with active learning, blogs, tweets, and the occasional journal article respond, 'in defence of the lecture'.

The purpose of this section, therefore, is to explore some of the literature written in defence of the lecture method. Bligh himself is not entirely antagonistic towards the lecture method, he believes that it is often misused, and that there is an overreliance on it, but that it has its place in higher education – primarily for knowledge transfer (Bligh, 1972). For Bligh, the definition of the lecture here is key, what he and many others who write in defence of lecturing are actually describing is active, student-centred approaches to teaching: 'The narrow characterisation of the lecture employed by many of its critics can be contrasted with the very broad understanding

of the lecture format that is most often adopted by supporters of the lecture' (French & Kennedy, 2017, p. 645).

Pike argues that for decades, no reputable faculty development professional has endorsed anything other than the "interactive lecture". He claims that critics of the lecture often portray it as a sixty-minute monologue, which he describes as an ineffective approach, regardless of how practitioners justify it. 'However, since the rise of active learning, this traditional lecture model has not been promoted by scholarly educators' (2019, p. 142). Which, if true, would fail to explain the vast quantities of university real estate occupied by fixed-seat lecture theatres (paper IV).

Because it's traditional

The allure of the lecture is often its association with tradition, and because many academics attended and enjoyed lectures when they themselves were students. The remembrance sometimes takes on the reverential tone of which Nietzsche speaks:

> 'For these students, attendance at lectures has a magical rather than a real significance. They attend lectures regularly (religiously, as one might say) taking care to sit as far from the lecturer as possible (it is not good to attract the attention of little understood but powerful forces) and take complete notes' (Körner, 2004)

Most educators today were themselves taught through the lecture format, and it is widely recognised that individuals tend to teach in the same way they were taught unless they consciously strive to change their methods (Woodring & Woodring, 2011). The lecture is also seen as a safe and straightforward teaching approach, providing instructors with the greatest level of control in the classroom environment.

What must be remembered is that lecturers are mostly academically successful, with well-developed study skills and thus, well equipped to navigate academia; '….academic discourse, through its hierarchy of formal criteria, favours students from bourgeois backgrounds, who rediscover in its medium their natural linguistic milieu, and sets further obstacles in the path of working-class students' (Bourdieu et al., 1996, p. 87). The diversity among the student population which came with the political choice for the massification of higher education (Trowler, 2003), has exacerbated the situation and, in many cases, widened the divide between educators and their students.

For some adherents of the lecture method, it is the execution, not the format itself, that is the problem: 'The problem is lousy lectures, too much lecture, and lecture for the wrong purposes […] Done well, lecture is one valuable way to establish relationships between people and ideas, engage with new material, model thinking, and create a classroom environment that works.' (Pike, 2019, p. 133)

Ausubel too, thinks that the lecture is valuable but misused by practitioners leading to its poor reputation:

> 'Yet few pedagogic devices have been repudiated more unequivocally by educational theorists than the method of expository verbal instruction. It is fashionable in many quarters to characterise verbal learning as parrot-like recitation and rote memorization of isolated facts and to dismiss it disdainfully as an archaic remnant of discredited educational tradition. […] Adequate reasons, of course, exist for some of the existing disenchantment with expository teaching and reception learning. The most obvious of these is that potentially meaningful subject matter is frequently presented to pupils in such a way that they can only learn it *rotely.'* (Ausubel, 2000, p. 6)

The claimed benefits of the lecture format

Cooper & Robinson suggest that appropriate uses of the lecture method include:

- 'To organize, integrate, and update reading materials
- To model problem solving and critical thinking as conducted by an advanced practitioner in the field
- To demonstrate enthusiasm for the subject matter
- To relate course-relevant personal experiences to the students
- To explain and develop complex concepts and ideas introduced in the reading
- To provide context for issues and ideas and information introduced in the reading' (2000, p. 9)

These are some of the other claimed benefits of the lecture, most are from journal articles, some from blogs or opinion pieces:

Listening skills

'The notion of critical listening involves thinking, questioning, and evaluating and is therefore suggestive of some of the ways in which lectures might facilitate learning not only through interactive engagement but through the act of listening' (French & Kennedy, 2017, p. 648). The claim is that lectures provide one of the few instances in university curricula in which students are encouraged to listen for a sustained period of time which offer an opportunity for students to develop the ability to think through and synthesise ideas.

Charlton goes further, arguing that it, 'is easier for most people to learn conceptual information from spoken communications than from reading […] and the social context of a formal lecture makes it easier for most students to remain alert, focus attention and remember what is said' (2006, p. 1262).

> 'In defence of the lecture, we describe how it teaches students listening/attention skills, grit and persistence, accountability, and the importance of respecting status differences […] Students begin to learn workplace professionalism, decorum, and

> respect for rank through their classroom experiences' (Offstein & Chory, 2019, pp. 353–354).

It seems odd to hear this language of 'respect for rank', in the context of a university lecture. The additional 'skills' of 'persistence, accountability, and the importance of respecting status differences' remain entirely unsupported with evidence.

As discussed in paper IV, listening skills are regularly mentioned by those defending transmissive lectures, yet most of the recent research suggests that online and interactive approaches are more effective in developing those skills (e.g., Gonulal, 2020).

Sense of community

The claim here is that the cohort all being together in a fixed time and place creates a sense of community, (a sense of community itself is known to improve student outcomes and happens to be one of the UK National Student Survey criteria). Webster suggests that this community includes the lecturer who is: 'in communion with students as part of a community […] this aspect of the human 'other' to whom we are with in a community as establishing a relation that is not present when someone speaks at an audience' (2015, p. 99).

Tokumitsu says that the lecture remains a powerful tool for community building and that lecturers are 'all the while responding to their audience's nonverbal cues. Far from being one-sided, lectures are a social occasion' (Tokumitsu, 2017).

A sense of community was also raised by several Pro-Vice Chancellors in paper IV as a rationale for large lectures; however, the students in the case study of paper's II and III suggest that few of them knew anyone outside of their small friendship groups. One student even said that she would miss lectures if none of her friends were going. If anything, they were describing feelings of isolation and anonymity in large lectures rather than a sense of community; and so, the idea of a community developing among several hundred students, who might only be in one lecture together each week, does seem a little optimistic. Of course, why, in transmissive lectures where students are largely silent, a community would develop *more* than in an active learning environment, where they spend much of the time talking to each other, remains unarticulated.

Inspirational

A key argument advanced by proponents of the lecture method is the notion that lectures can serve to *inspire* students. Academics who defend the lecture format often highlight its potential to ignite curiosity, motivate students, and engage them intellectually in ways that more interactive, student-centred methods may not always achieve. These defenders argue that, when delivered by an engaging and knowledgeable lecturer, the traditional lecture can captivate an audience, offering not only the transmission of knowledge but also a powerful intellectual experience

that stimulates deeper thinking and enthusiasm for the subject (Charlton, 2006; Friesen, 2017; Offstein & Chory, 2019).

One of the central elements of this defence is the belief that a charismatic lecturer can bring complex ideas to life, offering a narrative that draws students into the material. Inspirational lecturers are seen as capable of fostering a passion for learning, particularly when they share their own research, experiences, and intellectual journeys. In this context, the lecture becomes a platform for academic storytelling, where students are exposed to the thought processes, insights, and critical reflections of an expert in the field (Petrović & Pale, 2015; Trott, 1963).

This 'inspirational' defence often rests on the assumption that certain forms of knowledge are best transmitted through direct, compelling exposition by a skilled communicator. Advocates argue that this dynamic can create a lasting impact on students' intellectual development, fostering not only understanding but also an appreciation for the depth and breadth of knowledge in a given field, 'the lecture, as a format for provoking deep, existential and educative thinking, is irreplaceable' (Webster, 2015, p. 88)

> 'One point a lecturer should remember, it is doubtful if many students will retain very much of the content of a lecture. It is likely that in a short space of time many of the pearls of wisdom which have been so carefully prepared will have gone completely from the student's mind. This does not matter, particularly if the student has been stimulated to think and read for himself' (Trott, 1963, p. 74).

These arguments rely heavily on the personal qualities of the lecturer, making it a less reliable method of instruction if those qualities are not present. Bligh (1972) found that the lecture method was no more likely to inspire students than alternative approaches. More recent studies tend to emphasise the importance of interactive student-centred approaches to create inspiration and engagement (Istijanto & Nathalie, 2024).

Scholarship in Action

The argument that lectures represent "scholarship in action" emphasises that they are not merely a mode of content delivery, but a form of active scholarly engagement. The claim is that when lecturers present material, they are often doing much more than transmitting information: 'When designed and delivered expertly, lectures have clear pedagogical benefits, including their capacity to offer a sustained argument and narrative and model expertise in the discipline' (Ryan et al., 2021, p. 1385). By crafting a coherent argument, synthesising complex ideas, and critically engaging with the material, lecturers demonstrate the processes of scholarly inquiry, interpretation, and critical thinking that underpin academic work (Ramsden, 2003; Trigwell et al., 2005). Advocates of this perspective argue that lectures provide students with a unique opportunity to observe how experts engage with their field,

seeing scholarship unfold in real time (L. B. Clark, 2018; Pike, 2019; Tokumitsu, 2017).

Lectures as "scholarship in action" are also defended on the grounds that they provide a structured space for intellectual leadership. The lecturer guides students through complex bodies of knowledge, offering interpretations, drawing connections, and providing the context needed to understand and engage with the material at a deeper level:

> 'To its detractors, I say this: a lecture is a pedagogic technique. A lecture represents scholarship in action […] And more than any other academic experience, the lecture provides students with meaning about the subject under discussion […] What students gain from a lecture is much more than an introduction into new facts and ideas. At its best, it is a total experience. And years later what students recollect from that unforgettable lecture are not its details but a performance that validated their academic experience' (Furedi, 2013).

Critics, however, argue that while lectures can showcase scholarship, they may not always foster deep, active learning in students. The risk is that students may become passive recipients of information rather than participants in the scholarly process themselves.

And Finally

Some academics appear to rely on the formality of the lecture format to endow them with authority in their relationship with their students: 'A properly-conducted lecture also exploits the psychological disposition to attend to persons of authority in social situations […] a group's attention is focused on the lecturer, and this artificially generates authority in the lecturer' (Charlton, 2006, p. 1264).

A number of more esoteric claims are made, including that: 'It is through "being alone" during the short time of the lecture that students can undergo some focussed reflective thinking to evaluate the "epistemological validity" of their position […] In the lecture format students can be individualised in an existential sense and this can encourage deep, transformative thinking' (Webster, 2015, p. 102).

The interesting thing about all of the above claims in articles in defence of the lecture method is that none of them are empirically tested.

So, are lectures good or bad?

The discourse around lectures often descends into the binary choice of whether lectures are good or bad which, of course, misses the point. The point is whether they achieve the learning objectives that the lecturer had in mind for the students (Bligh, 1972). As discussed in paper II from this thesis, it is not always clear that lecturers or students *know* what the intended outcomes are from attending lectures. 'However, if lectures are to be retained, it is vital that both staff and students have

a stronger understanding of their purpose and value' (French & Kennedy, 2017, p. 651). The issue of academic freedom comes up in both sides of the argument on the use of transmissive lectures:

> 'Reconsidering the critical and transformative potential of the lecture is important because critical educators are increasingly being pushed to the margins and their academic freedom to teach as they want is being suppressed by large class sizes and fewer contact hours with students' (L. B. Clark, 2018, p. 987).

A regular question is whether active learning approaches delivered by inadequate teachers, is any more beneficial for students than poor quality lectures: 'It remains to be seen if these ineffective lecturers are any more effective using alternative teaching methods; perhaps they will just become ineffective users of other teaching techniques even with the latest technology' (Kramer, 2017, p. 247).

Inadequate teachers are likely to remain inadequate, no matter what the technique. The overwhelming body of evidence is that competent teachers can enhance their practice and student outcomes using student-centred approaches to learning and teaching (Mallin, 2017). One of the factors that clouds the issue is that students often prefer passive lectures to active learning approaches (particularly initially), mistakenly believing that they learn more effectively from lectures (see Paper III).

Extensive research in the learning sciences has provided substantial evidence of teaching methods that effectively enhance both student learning and the development of metacognitive skills. These approaches, such as active learning techniques, have been shown to significantly improve student engagement, understanding, and retention of material. However, despite their demonstrable effectiveness, these methods do not necessarily lead to higher student evaluations of teaching effectiveness (Carpenter et al., 2020).

A key insight from this body of research is that effective learning techniques do not always feel effective to students. Active learning strategies often require more effort and cognitive engagement, which can lead students to perceive them as less beneficial in the short term. As a result, students may express dissatisfaction with these techniques, frequently stating that they do not believe they are learning as much compared to more passive methods, such as traditional lectures, which demand less active participation (Deslauriers et al., 2019).

This disconnect between the actual benefits of active learning and students' perceptions of it presents a challenge for educators, as students often favour the less demanding approaches that may feel more comfortable but are less effective in promoting deep, sustained learning.

An important factor which is often overlooked in these debates is the disproportionately positive effect active learning approaches have for non-traditional university students: 'active learning instruction, while beneficial to all

students, is particularly effective at improving learning outcomes for traditionally underrepresented student groups, including students of color, low-income students, first-generation students, and women in STEM fields' (Bruff, 2015).

Thus, 'to be clear […] the nothing-but-lecture approach is not supported by the research' (Bruff, 2015).

The Lecture as Tradition

The 'traditional lecture' is a term often used in higher education, both formally through university literature and documentation and informally, in everyday academic conversations. But what is meant by the term? What tradition is being drawn upon, and for what purpose?

Tradition is 'taken to mean a set of practices, normally governed by overtly or tacitly accepted rules and of a ritual or symbolic nature, which seek to inculcate certain values and norms of behaviour by repetition, which automatically implies continuity with the past' (Hobsbawm & Ranger, 2012, p. 1).

Tradition is often invoked to legitimise values and ideas: the scientific method, academic freedom, the unity of knowledge, and the Humboldtian university ideal (Lindberg, 2017). The Humboldtian era lecture, often seen as aspirational due to its focus on research and knowledge creation, fell out of favour with students because they wanted a more direct relationship between the teaching and their assessment (W. Clark, 2007; Lindberg, 2017).

Notwithstanding the long history of lectures, the contemporary large-class lecture is unique in a number of ways, including the diversity of students and the technology available both in the lecture itself and outside. The provision of lecture slides and more recently lecture recordings, has become more or less ubiquitous. This means that for most students the need to take contemporaneous notes is reduced or eliminated, thus changing the dynamics of the lecture hall.

This leads Lindberg to suggest that the contemporary lectures claim on tradition may be tenuous and contested. He contends that over the last century, its environment has changed because the university system has changed so much, both quantitatively and qualitatively that, in modern society academic lecturing no longer appears to be as exclusive a genre as when it was mainly practised by professors; and that given these changes in both the academic environment and teaching technology, it could be argued that the tradition is broken (2017).

Whether the continuity is broken or not, the *claim* of tradition in relation to the lecture remains strong. The contemporary invocation of the lecture as tradition is not merely a neutral reflection of past practice but rather a socially constructed

narrative that implies an educational equivalence with the elite universities depicted in popular culture. The tradition narrative provides a veneer of legitimacy, suggesting that because lectures have always been a part of university life, they possess inherent educational value. This framing, however, overlooks the ways in which pedagogy has evolved in response to educational research and the changing needs of students, in what is now an era of mass education.

To what extent large-class lectures *could* or *should* be the, 'guiding thread through the past and the chain to which each new generation knowingly or unknowingly [is] bound' (Arendt, 2006, p. 25) will be explored further in the forthcoming chapters.

Chapter 3: Theoretical Framework and Methods

> *"…however much you deny the truth, the truth goes on existing, as it were, behind your back…" George Orwell [1942] (Rodden, 2007, p. 87)*

The social world of higher education described in this thesis and accompanying papers is large and complex; knowledge acquisition itself is poorly understood, with differing views of learning processes. Conceptual and theoretical frameworks are therefore essential in attempting to examine its practice, by providing structure for the research and enabling it to join the conversation with existing literature. These theories are 'inevitably simplifications, in that they cannot deal with the complexity of the social world but instead focus on certain aspects and not others [this means that] explanations are relatively incomplete, approximate and contestable' (Ashwin, 2012, p. 17).

As these theories and frameworks help narrow the focus of research, the discrete projects which make up this thesis have adopted specific conceptual and theoretical perspectives most suited to address the specific research questions. Paper I is explicitly concerned with constructive alignment, while papers II and III draw on Snyder's *The Hidden Curriculum*; and paper IV introduces Argyris and Schön's *theory of action*, which also underpins the general discussion in chapter 5, and these theories and frameworks are explored within the relevant articles.

However, the overarching theoretical perspective is that of *critical realism*, which is introduced here in the kappa as a suitable framework to draw together the methods used, the analyses, and discussion, by providing a coherent framework to navigate the objective world and our interpretations of it.

There follows a brief description of critical realism which is followed by a review of the methods used within the research projects, and an explanation of how their use, combined with Reflexive Thematic Analysis as the analytic tool, contributes to the validity of the findings.

Critical realism

Critical realism is a philosophical approach to understanding science that combines a realist ontology (the belief that there is a reality independent of our perceptions of it) with a critical epistemology (the belief that our knowledge of reality is inevitably influenced by social, historical, and cultural factors). It was developed by the British philosopher Roy Bhaskar (1944–2014). Bhaskar first introduced his concept of critical realism in his 1975 (2013) book, *A Realist Theory of Science*, where he critiqued the prevailing philosophies of science of the time, arguing that they failed to adequately account for the nature and development of science itself. He proposed that the real world is structured, differentiated, and changing, and that science's aim is to describe the mechanisms that cause phenomena in the world, not just the phenomena themselves.

> 'Ontological realism asserts that reality exists and operates independently of our awareness or knowledge of it. Although we can only have access to reality through paradigms, theories, concepts and methodologies, these do not constitute reality. Rather, they disclose it.' (Albert et al., 2020, p. 359)

Critical realism has since influenced various fields, including sociology, education, and health research by providing a framework for researchers to explore the underlying mechanisms and contexts that shape observable phenomena. Although critical realism itself, is 'not a homogenous movement in social science. There are many different perspectives and developments' (Danermark et al., 2019, p. 1).

Critical realism, as articulated by Roy Bhaskar (2013), assumes that reality is stratified, consisting of the *empirical* (what is experienced), the *actual* (what occurs), and the *real* (underlying mechanisms that produce events). Generally, critical realism contends that reality consists of both observable events and the underlying structures and mechanisms that cause these events (Bhaskar, 2013). From this perspective, interviews for instance, are not merely conversations but methodological tools that enable researchers to uncover the deeper, often hidden, mechanisms and structures influencing individuals' experiences and behaviours (Maxwell, 2012).

The critical realist acknowledges that human perception is inherently limited and can be misleading, making the attainment of 'truth' highly challenging. They recognise that the way we interpret facts, particularly in the social domain, is influenced by our beliefs and expectations. Consequently, this perspective fosters a critical or sceptical stance, embracing fallibilism – the belief that absolute certain empirical knowledge is unattainable because the statements forming it cannot be fully and definitively verified. Furthermore, the critical realist understands that perception alone is insufficient and must be refined and augmented through the development of concepts, hypotheses, and theories that address imperceptible

phenomena such as social networks, institutions, and nations. Importantly, they also recognise that scientific theories cannot perfectly mirror their real-world referents. This is due to their reliance on (a) simplifications and idealisations, and (b) conventional elements, such as units, scales, and coordinate systems. Thus, scientific theories inherently include constructs that lack direct real-world counterparts (Bunge, 1993).

This last point is particularly relevant for education because what constitutes learning (and is, or could be measured as learning) is a hugely contentious topic. While this thesis adopts a broadly constructivist view of learning, due to the constraints within which the research was conducted, the empirical studies generally limit themselves to the observable indications of learning as measured by assessment outcomes when discussing efficacy.

It has been suggested that constructivism (paper I) is ontologically incompatible with critical realism (e.g., Ignacio & Paras, 2024); however, others argue that only a subset of 'radical' social constructivists believe that there can be no reality which operates independently of our knowledge of it (e.g., Danermark et al., 2019; Steffe & Gale, 1995). Thus, it is the moderate interpretations of constructivism that are referenced in this thesis, and particularly paper I, which remain consonant with the overarching position adopted in critical realism.

Bhaskar introduced the concept of *causal powers* as properties of objects or structures that enable them to act in specific ways (2013). These powers do not always result in observable outcomes due to the influence of other mechanisms or conditions. The focus on *tendencies* contrasts with Humean views of causation, which rely on constant conjunctions of events because, 'the nature of society as an open system makes it impossible to make predictions as can be done in natural science. But, based on an analysis of causal mechanisms, it is possible to conduct a well-informed discussion about potential consequences of mechanisms working in different settings' (Danermark et al., 2019, p. 2).

By acknowledging the complexity of social phenomena, critical realism allows for an exploration of how individuals and the material world interact to produce observable outcomes (Easton, 2010). Therefore, interviews within this framework are designed to elicit not only participants' explicit knowledge and experiences but also their implicit understandings of the causal mechanisms at play in their contexts (Potter, 1996).

Reflexive thematic analysis, the analytic tool used in papers II, III and IV, is particularly suited to incorporating the critical realist perspective, and defines it as:

> 'combining ontological realism (the truth is out there) with epistemological relativism (it's impossible to access the truth directly) to provide a position that retains a concept of truth and reality but recognises that human practices always shape

> how we experience and know this – human practices can be said to give rise to perspectives and contextual truths.
>
> […]
>
> Critical realism is *realist* in the sense that it broadly postulates a reality that exists independently of a researcher's ideas about and description of it. But – and here's where critical realism differs from pure or simple realism – our experiences and understandings of reality are theorised as *mediated* by language and culture' (Braun & Clarke, 2022, pp. 169–170).

Within reflexive thematic analysis (RTA) a critical realist position means that data do not provide a clear and direct reflection of reality. Instead, there is a *mediated* reflection of reality. What is accessed is the 'participants' perception of (their) reality, shaped by and embedded within their cultural context, language and so on' (Braun & Clarke, 2022, p. 171). In this thesis involving multiple research projects, and multiple methods for data collection, critical realism allows for the integration of both qualitative and quantitative methods. This is because critical realism acknowledges that different types of research methods can reveal different aspects of reality. While quantitative methods might uncover patterns and regularities, qualitative methods can explore the underlying mechanisms and contexts that explain these patterns. For instance, the case study of papers II and III employ statistical analysis and use in-depth interviews. Critical realism provides a coherent philosophical basis for combining these approaches, asserting that both can contribute to understanding different dimensions of the same reality.

Methods

Critical Reflection (paper I)

Critical reflection as a methodology in educational research involves a deep and systematic examination of policies, practices, and assumptions that shape the educational landscape. It is an approach that encourages researchers to scrutinise and question the underlying beliefs, values, and power dynamics that inform educational policies and their implementation. This method is particularly valuable in uncovering biases, inequalities, and taken-for-granted practices that may perpetuate disadvantage within the education system.

Critical reflection has been described and used in a number of ways (Fook, 2011), however, for the purposes of paper I, it is as a methodological approach. Although reflexivity is conceptualised in various ways across the research literature, most discussions focus on the researcher's influence, the role of self-reflection and

critique, and the impact of the researcher's positionality on the production of research. Engaging in critical reflection allows for the examination of taken-for-granted beliefs and the identification of limiting or unproductive assumptions. Moreover, critical reflection enhances the connection between theory and practice, enabling the exploration of ways to align the critical objectives that underpin the practical methods we employ (Morley, 2008).

In this case it was chosen for the affordances of questioning assumptions, analysing power dynamics, engaging with multiple perspectives, and reflecting personal values to understand what was happening and why (Hickson, 2016).

Critical Reflection was chosen as the approach for paper I, *Reclaiming Constructive Alignment*, to 'provide the intellectual space to institute mechanisms of reflexive rigour in ways that are both transparent and accountable.' (Morley, 2008, p. 172). By adopting a position early in the paper, the analytical lens was made transparent:

> 'Our position in this paper is that CA (and OBE used within this context), are qualitative tools, whose success in practice is predicated on implementation by skilled, professional educators. When the terminology is lifted from this context and used externally, for QA or audit purposes, the meanings diverge materially; one concerned primarily with the process of learning and teaching, and the other with only its product. While the policy intention is that one framework will provide enhancement and accountability, the two uses are in most cases we contend, mutually exclusive' (Loughlin et al., 2021, p. 120).

This articulation of our position was an important part of the reflexive process, while also providing clarity for the reader and structure for the article itself. Having established our stance in relation to constructive alignment used in the context of quality assurance and audit, we were able to show how misinterpretation and reductive application at policy level had divested it of its educational powers in those settings, and damaged its standing as a useful framework in academic practice.

Case Study (papers II & III)

Case study methodology aligns with critical realism by enabling an in-depth, contextually rich exploration of phenomena within real-life settings. Critical realism complements this by encouraging researchers to interpret these data in light of broader structures and causal mechanisms, not purely the observed phenomena.

Case study methodology in educational research involves an in-depth, contextual analysis of a single event, situation, individual, or specific community. Case studies are particularly useful for exploring the complexities of educational practice in real-world settings, allowing researchers to gain insights into the processes, outcomes, and impacts on various stakeholders. This approach can provide detailed information about how policies are interpreted, implemented, and experienced in

practice, offering nuanced understandings that might be overlooked in quantitative studies. Case studies are preferred over quantitative studies 'when the relevant behaviours […] cannot be manipulated and when the desire is to study some contemporary event or set of events' (Yin, 2009, p. 12).

However, there is a paradox, because although widely used, the case study is held in low regard by some sections of the academic community. Criticism includes the lack of generalisability and researcher subjectivity (Flyvbjerg, 2011).

Yin (2009) argues that the concerns over the generalisability of case studies are largely due to a category error; he points out that generalisations in the physical and life sciences are seldom based on single experiments; rather, they rely on multiple experiments that replicate the same phenomenon across different conditions. Similarly, case studies, like experiments, are generalisable to theoretical propositions rather than to populations or broader universes. The primary aim of conducting case study research is to expand and refine theoretical frameworks, rather than to extrapolate findings to wider populations (other cohorts in this case).

Statistical generalisation involves drawing conclusions about a larger population based on data from a sample. This method relies on statistical inference and often uses quantitative data. *Analytical generalisation*, on the other hand, involves applying the findings from a case study to broader theoretical concepts. It focuses on theory and can either corroborate, challenge, or extend existing theories, or develop new concepts based on the case study's results. Statistical generalisation is about extending findings to a wider group, while analytical generalisation is about connecting results to theories and concepts (Yin, 2009).

Yin highlights the value of using *common cases* to enhance the generalisability of findings through analytic generalisation rather than statistical generalisation. Common cases, which are representative or typical of a broader phenomenon, allow researchers to develop or refine theories by encapsulating widely observed patterns or trends. By linking the findings of these cases to broader contexts, researchers can strengthen the external validity of their work and identify principles or mechanisms applicable to similar situations. Yin emphasises that the careful selection and justification of common cases are essential for ensuring their relevance to the study's theoretical framework and for drawing meaningful insights that extend beyond the specific case.

The *case* selected for the case study of paper's II & III was made on the basis of its credentials as a common case, described in this extract from paper II:

> The rationale for choosing this particular module were its credentials as a *common case* (Yin, 2009). The course handbook describes the lecture element as: 'standard lecture format with interactive elements'; the cohort size falls within the mid-range at the University and the 200-seat lecture hall is the most common size of fixed seat venues (the mean capacity across all raked-seat lecture theatres at the University is

> 154). The discipline is obviously the most contentious point for claiming a 'common case'; however, observations across a range of distinct disciplines, in the specific context of a largescale lecture, suggest that disciplines have more in common than separates them. Comparisons of 'effective teaching do not vary markedly across the academic disciplines' (Dolnicar, 2005, p. 4). The major variables which affect student engagement with the lecture, such as personality, enthusiasm, and structure, operate independently of the discipline (e.g. Bligh, 2000).

A wide range of data were collected for this case study, including interviews and focus groups to obtain the perspectives of staff and students; institutional documentation, such as the educational strategy and module validation documentation for the institutional perspective; and institutional system data to analyse student engagement with the virtual learning environment (VLE) and lecture recordings. Assignment and exam results were collected, and finally the lectures themselves were observed.

Together these data provide a rich and comprehensive representation of the module from multiple perspectives. The critical realist approach embraces the collection of the diverse material available in a case study including a mix of quantitative and qualitative data. Part of the *critical* element of critical realism, involves evaluating claims and assumptions made by participants; and the quantitative analysis of exam results and VLE usage, plus the physical observations certainly challenge some of the assumptions of efficacy found. For example, the lecturer's assertion that 'most' of the cohort attended lectures was not supported by the lecture observations which found that attendance actually ranged between 35% and 46%; the students too, over-reported their attendance at lectures.

Case study methodology, and reflexive thematic analysis provide a rigorous and layered approach to exploring the complex phenomenon of large-class teaching in higher education. With its emphasis on researcher reflexivity, RTA aligns well with the critical realist stance, as the researcher actively engages with how their interpretations are shaped by their theoretical lens and positionality. The reflexive aspect ensures the researcher critically examines their own role in shaping the analysis, and remains attentive to both empirical findings and the underlying structures influencing those findings. For instance, the second student focus group was conducted due to my concerns that the positive benefits for students attending lectures had not been fully explored. I wanted to challenge my own scepticism regarding the efficacy of lectures and ensure that the voices of those who enjoyed the live lectures and felt that they contributed to learning, were fully heard.

Case study methodology situates the research in a specific context, allowing for an exploration of the nuances of large-class teaching, while considering structural and contextual influences. Finally, reflexive thematic analysis offers a method for engaging with and interpreting the qualitative data, ensuring that themes are

developed in a way that aligns with critical realist principles by linking empirical observations to broader causal mechanisms.

The case study in this thesis engaged with the existing theories of Bligh and Snyder (paper II) and introduced the concept of the *Illusion of attendance* based on the findings (paper III), wherein staff and students overestimate the learning that takes place in live lectures *and* students' physical attendance at them.

Observations (papers II & III)

Physical observations of a lecture series in a large lecture hall also align well with critical realism because they provide direct access to the *empirical* level of reality, offering insight into the observable interactions, behaviours, and practices occurring in the learning and teaching environment. This approach complements critical realism's goal of uncovering and explaining the underlying causal mechanisms and structures that generate these phenomena. These observable phenomena provide valuable empirical data that can later be linked to the *actual* level, which includes both observed and unobserved events, and ultimately to the *real* level, where deeper structures and mechanisms operate. For example, an observation might reveal that students failed to engage with in-class discussions, but critical realism encourages the researcher to go beyond this surface-level observation to investigate underlying causes, such as, institutional policies, class size, or the design of the lecture hall.

Critical realism also accommodates the complexity of open systems, recognising that physical observations capture only a partial and context-dependent view of reality. It also acknowledges the role of the observer's positionality in shaping what is noticed and recorded.

In the context of the case study in this project, there were eleven two-hour lectures, seven of which were observed, and lecture recordings of the remaining four were viewed. I was introduced to the students in the first lecture, and I let them know why I was there, and how they could participate with the survey and focus groups. For the physical observations I arrived early and sat in the back row to be as unobtrusive as possible.

This vignette is an extract from paper II and sets the scene in the lecture hall:

> *The two-hour-long lectures took place between October and January, the temperature in the hall was often on the cool side, most people were wearing sweaters, and a few kept on their outdoor coats. The hall itself is windowless, with just ten seats either side of the aisle, and ten rows deep.*
>
> *On my third visit to the steeply tiered lecture hall for this series of lectures, I took my usual place, off to one side in the back row of*

> *the fixed, high-backed seats. The podium appears distant from here, and there is a large projected display on the wall behind it. The rows are narrow, and they have fold-out tables coming from the seat in front, rather like an aeroplane tray-table, just big enough to accommodate a laptop. A young woman came into the hall and sat a few seats away from me in the back row. Before the lecture commenced, she put her tray-table down, laid her head on it and went to sleep. She remained that way for the entire two hours. (Loughlin & Lindberg-Sand, 2023, p. 289)*

As previously mentioned, I had no particular expectations of the lecture, and only a few pre-planned observational strategies. For instance, attendance rates were of interest, and I therefore made a physical count in each lecture, around twenty minutes after the official start time to allow for latecomers (there were not too many of those). The other main area of interest was the pedagogy adopted. There were five lecturers, although six of the eleven lectures were given by the lecturer interviewed for the study and one by the module leader, also interviewed. As described in papers II and III, the lectures were primarily transmissive, with very little interaction with the students. I measured this quantitatively, in terms of the proportion of time spent on 'discussion' or questions; and qualitatively in terms of how the students engaged with attempts to generate interaction and discussion (as described in the papers).

The unexpected and interesting dynamics were the clusters of students that were obviously in friendship groups, along with (many) individuals who chose to sit alone, which obviously exacerbated issues with attempting to generate peer discussion. Also interesting, given the lack of questions when offered the opportunity in the lecture, was the long queue of students waiting to speak to the lecturer during the break and afterwards. In line with the critical, realist perspective, these issues were picked up in the interviews and focus groups in order to try and understand, not just what was happening, but why.

Semi-Structured Interviews (papers II, III & IV)

Critical realism provides a solid foundation for using semi-structured interviews and focus groups by enabling a deep exploration of the interplay between individual agency and structural factors. Semi-structured interviews capture detailed accounts of the lecturer's and module leader's experiences, shedding light on their strategies and challenges in navigating institutional and pedagogical constraints. Focus groups complement this by revealing collective student perspectives and facilitating insights into shared experiences.

Interviews are a flexible research tool used across various disciplines; they allow researchers to collect rich data through direct interaction with participants. The different types of research interviews vary in terms of structure, providing a range of approaches to meet the study objectives. The research interview has been defined as ‘a two person conversation initiated by the interviewer for the specific purpose of obtaining research-relevant information and focused by him on content specified by research objectives of systematic description, prediction, or explanation’ (Cohen et al., 2011, p. 411).

Qualitative research interviews are designed to engage, understand, and interpret the unique perspectives and experiences of participants, providing a detailed view of their lifeworlds. These interviews aim to uncover and explore nuanced descriptions, allowing researchers to gain deeper insights into participants' thoughts, feelings, and behaviours. A key characteristic is their deliberate openness to new data and unexpected phenomena, ensuring that the research process remains flexible rather than constrained by rigid structures. Qualitative interviews also embrace ambiguity and contradictions where they occur, recognizing that such complexities can be an authentic reflection of participants' lived experiences. This approach enables a richer, more empathetic understanding of the contexts in which people operate (Cohen et al., 2011).

Research interviews offer diverse approaches to data collection, each suited to different research objectives. Structured interviews provide consistency and comparability, semi-structured interviews allow for flexibility and depth, and unstructured interviews offer open exploration.

Interviews vary in terms of their openness of purpose, level of structure, the extent to which they are exploratory or aimed at testing hypotheses, and whether they seek descriptive or interpretive insights. Additionally, they may focus predominantly on cognitive or emotional dimensions. Structured interviews are particularly valuable when the researcher is uncertain of what they do not yet know, relying on participants to provide key information. Conversely, when the aim is to gather unique, non-standardised, and personalised insights into how individuals perceive the world, qualitative, open-ended, and unstructured interviews are more appropriate (Cohen et al., 2011).

Interviews contrast from questionnaires in that they are typically unstructured or semi-structured, adopting a conversational, fluid style. This format allows each interview to adapt to the unique interests, experiences, and perspectives of the interviewees, transforming the process into a dialogue rather than a strict interrogation. A key benefit of this approach is its capacity to let respondents introduce topics that the interviewer might not have foreseen (Flowerdew & Martin, 2013). The structure of the interview can be controlled, yet there is room for spontaneity, enabling the interviewer to probe for detailed answers and explore complex or profound issues. Interviews span a continuum, with closed questions at

one end, offering limited response options, and open-ended questions at the other, allowing participants to answer freely without being confined to a predetermined set of responses (Cohen et al., 2011). This flexibility contributes to a more organic and insightful data collection process.

Given the limited availability of participants, particularly the senior educational leaders in paper IV, semi-structured interviews were chosen to maintain the focus on the research questions, while allowing some latitude to explore broader issues (Adeoye-Olatunde & Olenik, 2021).

Criticism of in-depth interviews includes that interviewers may unintentionally influence respondents' answers or that interviewers cannot maintain objectivity. This criticism arises from concerns that the personal interactions involved in in-depth interviews might lead to bias or subjectivity (Flowerdew and Martin, 2013). In contrast, humanist and post-structuralist researchers challenge the notion of complete objectivity in social science research. They argue that all research, including questionnaires and interview schedules, inherently reflects the perspectives, intentions, and interpretations of the researchers who design them. These researchers emphasise the importance of treating participants as individuals with unique experiences, not merely as data sources to be exploited. The implication is that research should prioritise ethical considerations and the human element, acknowledging that absolute objectivity is unattainable in the complex field of social science. Critical realism argues that while the researcher's perspectives and interpretations influence the research process, it is possible to uncover underlying causal mechanisms and structures through rigorous and reflexive inquiry. In this way, critical realism aligns with the humanist/post-structuralist view that researchers inevitably shape their work but goes further by asserting that these influences do not negate the possibility of producing reliable and meaningful knowledge about the world (McGrath et al., 2019).

Semi-structured interviews were used in the case study of paper's II and III (lecturer and module leader), and in paper IV, *Building Higher Education*. Participants' personal perspective and reflections were encouraged, and unanticipated comments were followed up within the context of a controlled conversation.

Focus Groups (papers II & III)

Focus groups, which originated in market research in the early 1990s (Alsaawi, 2014), are increasingly being used in educational research, though their adoption in these fields is slower compared to business and political settings. Unlike traditional group interviews, focus groups emphasise interaction among participants rather than between the interviewer and the group. The group discusses a topic provided by the researcher, and the resulting conversation creates a collective perspective as well as individual views. This approach allows participants to engage with each other,

leading to a focus on their agenda rather than the interviewer's, ‘comments from one participant may trigger a chain of responses from others [the group may then] provide a stimulus for elaboration, analysis and justification of views’ (Jackson, 1998, p. 72). The data in focus groups primarily arise from the group's interaction.

The contrived nature of focus groups is both an advantage and a drawback. Although the setting is artificial, it allows for a concentrated discussion on a particular issue, yielding insights that might not emerge in traditional one-on-one interviews. This was a consideration when interviewing students, the hope was that they would feel more comfortable in a group setting. Focus groups are efficient in terms of time, generating a significant amount of data in a short period. However, the amount of data collected may be less than what would be obtained from individual interviews with the same number of participants.

Focus groups were used in the case study (papers II & III) to garner the views of students in a setting which allowed them to explore what was important to them. It also was an efficient way of interacting with a large number of students in a limited amount of time.

Analysis

Reflexive Thematic Analysis (RTA), as developed by Braun and Clarke (2022), is a qualitative approach that identifies and interprets patterns or themes within data. In the context of higher education research, RTA is particularly useful for exploring complex, socially constructed phenomena such as teaching practice, student experiences, and institutional policies. It has the flexibility to encompass diverse data sources and maintains a focus on *why* and *how* phenomena happen, which again, is compatible with critical realism, as RTA naturally leads researchers to look at structures and mechanisms.

The analysis for the empirical research projects of papers II, and III; and the interview study of paper IV, were conducted following the six phases outlined in RTA:

- **Phase 1:** Familiarisation with the dataset.
- **Phase 2:** Coding, working systematically through the dataset in a fine-grained way.
- **Phase 3:** Generating initial themes**,** starting to identify shared patterned meaning across the dataset, clustering codes that seem to share a core idea or concept into candidate themes.
- **Phase 4:** Developing and reviewing themes, checking that the themes make sense in relation to both the coded extracts, and the full dataset.
- **Phase 5**: Refining, defining and naming themes.

- **Phase 6**: Writing up.

The first phase of analysis involved an in-depth familiarisation with the data. Transcripts of interviews and focus groups were read and re-read, observational notes were reviewed, and key policy and strategy documents were analysed to identify recurrent ideas and issues. This phase was crucial for immersion in the dataset and establishing a comprehensive understanding of the varying perspectives and institutional contexts. The process was iterative, moving between sources to trace connections and contrasts across the dataset. In the case study for instance, tracing the departmental teaching culture through module documentation, lecture observations, module leader, and lecturer interviews.

Initial coding was conducted inductively, generating codes that captured significant features of the data without imposing pre-existing theoretical categories. For example, phrases related to 'student engagement', 'anonymity', 'assessment', 'anxiety', and 'enjoyment' were noted and categorised.

Coding was not limited to a single data type; instead, codes were applied across the interviews, focus groups, policy documents, and observations, ensuring a holistic approach to the data. The integration of these multiple data sources allowed for triangulation; because, while Braun and Clarke (2022) reject the idea of codes generated based purely on the number of occurrences, establishing links between data sets does add to the credibility of the findings. For example, the student survey in conjunction with the lecture observations revealed that students overestimated the number of lectures they claimed to have attended, which was further verified in the focus groups, where several stated that they attended 'all' the lectures before going on to list a number of caveats whereby they would skip them.

Themes were then developed by grouping related codes into broader patterns that reflected the shared meanings and significance within the dataset. For instance, codes related to 'covering course content', 'passive learning', and 'learning as an event' were consolidated into a theme titled: *The illusion of learning from lectures*.

Similarly, in paper IV, codes from policy documents and interviews discussing resource allocation, institutional priorities and timetabling issues were synthesised into a theme titled: *The Administrative Tail Wagging the Pedagogic Dog*.

The analysis for paper IV followed a similar pattern to the case study, with the additional element of some deductive analysis when identifying codes relating to Argyris and Schön's *Theory of Action* (1992), used as a main theoretical framework for that particular study. For example, codes were included which identified defensive behaviours (of the individual and institution), or those that related to the espoused educational values of the individual or institution.

Throughout this process, I engaged in reflexive practice, interrogating my own interpretations and assumptions to ensure that the themes accurately represented the data while aligning with the study's objectives. The iterative nature of RTA

provided analytical rigour by requiring constant movement between data, codes, themes, and the broader research questions. Themes were reviewed against the dataset to ensure coherence and that the representations in the article text remained true to their context within the transcripts.

By using RTA, the studies were able to integrate the richness of qualitative and quantitative data from multiple sources, offering a nuanced understanding of large-class teaching (papers II and III) and infrastructure decisions (paper IV). The method facilitated the identification of both shared and divergent experiences, while its inherent flexibility allowed for the inclusion of institutional and contextual factors as critical components of the analysis. RTA thus ensured a systematic, rigorous, and reflexive approach to exploring the complex and dynamic nature of large-class teaching in higher education.

This thesis adopts a critical realist perspective, framing the case study approach that explores the complexities of large-class teaching in higher education and reflexive thematic analysis which uncovers patterns that shape learning and teaching practice. The following chapter provides the research context, situating the studies within contemporary higher education, and introduces the four articles that collectively address the core research questions and contributions.

Chapter 4: Research Context and Articles

> *"Recitations alone readily degenerate into dusty repetitions, and lectures alone are too often a useless expenditure of force. The lecturer pumps laboriously into sieves. The water may be wholesome, but it runs through." Charles Eliot, (1898, p. 15)*

This chapter details the research context, the individual papers that comprise this thesis, and contributions that those papers make to the overall thesis.

The Research Context

While seemingly always in a state of flux, the 1990s saw a particularly frenzied period of development for UK higher education. There was continued and substantial growth in student numbers (international students were beginning to feature as a significant sub-set of the student body), and two major policy events took place. Towards the end of the decade the Bologna Accord was signed (De Lel et al., 2018), and that, with the Dearing Report (1997), (which introduced tuition fees), re-imagined the relationship between higher education institutions and students.

Students were now reconceived as consumers, and 'student choice', along with 'the student experience' and 'student-centred learning', became the watchwords for higher education (Tomlinson, 2017). 'The paradigm shift away from teaching to an emphasis on learning has encouraged power to be moved from the teacher to the student' (O'Neill & McMahon, 2005, p. 27). Teaching was to be professionalised with the recommendation that all lecturers should obtain a teaching qualification. This boosted the nascent field of academic development whose teaching programmes often embraced the recently published ideas of constructive alignment (Biggs, 1996).

The notion of active learning became dominant at all levels of policy and pedagogy. Physical teaching spaces came under the spotlight and a number of technology

enabled, group/collaborative working environments were developed, such as, MITs TEAL (Technology enabled active learning) and SCALEUP (Student-Centred Active Learning Environment with Upside down Pedagogies) (R. J. Beichner et al., 2007; Breslow, 2010). Although ever bigger student cohorts maintained an undiminished demand for new large fixed-seat lecture theatres with capacities creeping up, and regularly exceeding five-hundred.

The simultaneous focus on student-centred learning and the continued substantial growth in student numbers are the beginnings of the dichotomy being researched. As Biggs states, with massification came diversification and class sizes 'that seem to preclude any but the same methods of teaching and assessing that aren't working' (1999, p. 2).

A significant challenge in contemporary higher education lies in the disparity between rhetoric and teaching practice. Many institutions and educators profess to implement student-centred learning; however, in practice, this is often not the case. There is frequently more emphasis on the rhetoric than on the reality of teaching practice, with academics facing the imperative to 'publish or perish,' dedicating time to innovative teaching approaches is unlikely to be prioritised. Furthermore, the prevailing perception among many UK academics is that resources are more readily allocated to research than to teaching (Lea et al., 2003). Therefore, the gap between rhetoric and practice may be more reflective of the broader higher education climate rather than a lack of willingness on the part of educators.

The Covid-19 pandemic of 2020 was (and remains) a major influence on the way that universities operate, including pedagogical and infrastructure choices. The pandemic resulted in the sudden and instantaneous shift from in-person to remote (online) teaching.

> 'The situation [of emergency online teaching] during COVID generally resulted in chaotic learning environments, where teachers hastily migrated their course content to an online context and students were forced to shift to online learning' (Zhu et al., 2023, p. 3860).

Some institutions were better placed than others in terms of their online infrastructure, and the experiences of remote learning for students and staff varied considerably. For some academics it was transformational, and they continue to conduct much of their teaching online, for others, it was a miserable experience, and they rushed back to campus and 'business as usual' as soon as possible. Some students felt 'isolated because of the lack of interaction, especially with teachers' (Coman et al., 2020, p. 23).

Post pandemic the situation is mixed, and still evolving. Most institutions around the world have returned to campus and in-person lectures (see paper IV); however, the recorded lectures and the extra digital resources provided to students during remote teaching have proved popular, and difficult to retract.

Some of the more tangible demands, such as the call for increased access to MOOCs, podcasts, open educational resources, and recorded lectures, have indeed been accelerated by the pandemic (Eringfeld, 2021).

> 'Many universities […] have had no choice but to embrace flexibility and accommodate the continuously changing needs of students and staff during this extraordinary time […] utopian futures of the post-coronial university incorporate some of the perceived advantages of online education such as increased levels of freedom and accessibility' (Eringfeld, 2021, p. 155).

Eringfeld goes on to say that rather than advocating for purely online or traditional educational models, a blended approach appears to be the most desirable outcome in these forward-looking scenarios. However, concerns regarding disembodiment and the loss of community and belonging have emerged as significant challenges for both students and academic staff.

While the pandemic disrupted university life, the return to campus has not been straightforward, with particular issues around student engagement and non-attendance at lectures and other in-person teaching events. However, although the scale seems to be larger, most of these issues pre-date the pandemic; the 'underlying systemic issues that lead to student disengagement have been overlooked' (Parida et al., 2023, p. 2). Commenting on a discussion among academics following the publication of pictures on social media of empty lecture theatres, Ross states: 'The exchange reflected an increasingly incongruous situation on campuses, with students and staff clamouring for the social contact they missed during Covid – yet often passing when it became available' (2022).

And thus, the dichotomy remains. Institutions extol the virtue of student-centred learning and teaching; however, cohort sizes are bigger than ever, and much large-class teaching remains teacher-centric and transmissive.

The appended articles address this dichotomy at the policy level (paper I), the practice level (paper II & III), and the institutional level (paper IV).

The Research Articles:

Paper I: Reclaiming Constructive Alignment

Constructive alignment (Biggs & Tang, 2011) is the constructivist theoretical framework on which large sections of contemporary higher education policy and curricula design are based. At the European level constructive alignment is embedded in the Bologna Accord (De Lel et al., 2018) and in the UK it forms an integral part of the Quality Assurance Agency (QAA) guidance. As such, every

validated module/course within UK higher education is expected to include student-centred approaches to learning and teaching.

John Biggs published his first paper on constructive alignment in 1996, it quickly became popular with academic developers in higher education and was subsequently embedded in quality assurance processes as part of the 'outcomes-based education' movement. Constructive alignment has long faced criticism from academics who question its value, perceiving its limitations as outweighing the benefits (Roxå & Mårtensson, 2017).

This paper stems from an idea formed in one of the early introductory courses of my PhD here at Lund. Originally conceived as a piece critical of constructive alignment, further reading convinced me that most of the criticism directed towards the framework was ill-informed or mis-directed.

I was surprised, having re-read Biggs'1999 book, that he advocated for the flexibility of interpretation that his critics insisted constructive alignment denied them. The more I read, the more histrionic some of the criticisms directed at constructive alignment appeared.

If constructive alignment was not the problem, then why did it fail to have the impact on the quality of learning and teaching that might have been expected? It became increasingly apparent that the adoption of constructive alignment by quality assurance bodies had contributed to the erosion of the theory's potential. Together with my co-authors we pieced together the evidence of mis-interpretation and mis-use which undermined constructive alignment's value for academics.

Contribution to the thesis:

Constructive alignment has been the key curriculum design theory in European higher education for over twenty years. Very little has been written about the way that the theory has (or has not) translated into practice.

This article addressed that gap in the literature by providing an analysis of how the framework has been embedded into quality assurance processes which has had the effect of undermining its original purpose.

The purpose is therefore, to reclaim its original perspective as a tool for professional educators.

Paper II: The Use of Lectures

As this thesis is concerned with large-class teaching, a case study of a module containing a large-class lecture series was developed which is the basis for papers II and III.

Research into the practice of lectures tends to fall into two categories; those aimed at improving the lecture by looking at lecturer technique, and student engagement etc. (Bligh, 1972); and comparative studies which use the lecture as a base-line with which to contrast some other method, such as active learning (Baepler et al., 2023). Few studies explore the lecture on its own merits, and so, this research was designed to gain insight into how staff and students think about the lecture, and in what ways the lecture contributes to students' academic outcomes.

The module selected for study was chosen primarily based on the cohort size. It was a compulsory module for second year health science students, and as unremarkable as could be found. It was the average size cohort for the university, in the average size fixed-seat lecture theatre, taught in the middle of the day, in the middle of the week. Although the primary lecturer had recently completed an academic development programme, I had no expectation of the teaching approaches that would be taken.

Data was collected from physical observations, module documentation, the virtual learning environment, exam scores, lecture recording views, a survey, interviews and focus groups. During the lengthy data analysis, I happened to be reading Snyder's The Hidden Curriculum (1971) and noticed the publication date, it was fifty years old, as was Bligh's What's the Use of Lectures? Both texts resonated strongly with the findings in this study and were ultimately used as the conceptual framework for paper II, *The Use of Lectures.*

Contribution to the thesis:

This article builds on paper I by demonstrating empirically the arguments made regarding the failure of student-centred policy commitments to translate into practice.

The inability of both staff and students to clearly articulate the purpose of lectures suggests a lack of intentionality, which may further weaken the effectiveness of the format. The priorities of staff and students were such that the educational objectives of the lecture, and how it might contribute to student learning, were overlooked. This paper also contributes to the existing literature by adding to the body of empirical research indicating that physical teaching environments can promote teacher-centred pedagogical approaches.

Paper III: Large class lectures and the beliefs which foster the illusion of attendance

This paper draws on the same case study as the qualitative paper II and was originally intended to be its quantitative sibling. However, as the analysis and revisions progressed, the theme of the *Illusion of Attendance* was more fully

developed and the quantitative elements reduced to a supporting role, triangulating the findings of the main themes.

Illusion is quite common imagery in social science research, as it foregrounds the way that societies embrace comforting misconceptions rather than confront uncomfortable realities. In fact it was used in paper I to describe the way that constructive alignment was used in policy which created an illusion of 'academic integrity at odds with reality' (Loughlin et al., 2021, p. 120). Carpenter, Witherby, and Tauber (2020) describe an 'Illusion of learning', in which students overestimate their learning, that the authors ascribed primarily to overconfidence in students, the balance of their paper looks at students perceptions of the teaching. Inducing an emotional reaction to the course content has also been shown to create an illusion of learning (Baumeister et al., 2015); and others too, draw on the imagery of illusion to make their case (Linderoth, 2009; Schwartz, 2013).

Paper III *The Illusion of Attendance* specifically addresses the perceptions of staff and students in relation to *attendance* at the live lectures, with staff overestimating how many students came to lectures, and students overstating how many lectures they attended. The complicit nature of the relationship between staff and students (Bourdieu et al., 1996), meant that staff did not look too closely at who attended, and students benefited from privileged insight into likely exam questions. Staff and students in this study had quite low expectations of the learning which results from attending lectures, but in this case, even those were not met. Attendance at lectures was not positively correlated with exam scores to a statistically significant degree.

Furthermore, the paper highlighted that the students who attended the lectures engaged less with online learning resources and lecture recordings than those who did not attend the lectures. This led to the postulation of *the illusion of learning* that results from attending lectures, and could in some circumstances be detrimental to student outcomes; this resonates with the findings of Kassarnig (2017) and Dolnicar (2005).

Contribution to the thesis:

Paper III focuses on the lecture and builds on the findings of paper II, to explore themes which spring from the lack of intentionality discovered.

The illusions discussed in this paper are essential in sustaining the dominance of the transmissive lecture within higher education. It also provides empirical evidence of the undiscussability of the educational efficacy of large-class lectures. Together, these form an integral part of the denial and defensive routines of the theory of action discussed in paper IV and Chapter 5.

Paper IV: Building Higher Education

The question of how higher education institutions arrive at decisions to invest in large fixed-seat lecture theatres (which are known to encourage teacher-centric approaches to learning and teaching (Temple, 2008)) is an under researched topic (Leijon et al., 2022); and important to this thesis because the physical spaces in which we teach are a statement of intent on behalf of the institutions.

As mentioned in the introduction to paper IV, this research was inspired by one UK university's mid-2010s campus relocation in which they chose not to build any lecture theatres; while a university close-by was constructing a five-hundred-seat lecture theatre. The reason that the former institution's decision sparked such interest is because it was, and is, unusual; the vast majority of mass education institutions in the UK continue to construct large, fixed-seat lecture theatres.

Originally envisioned as a comparative study between the two universities, my professional networks afforded me the opportunity to engage with senior educational leaders representing sixteen universities, therefore, the research was reconceived as an interview study with pro-vice chancellors (PVCs) for education (the most senior academic at the university with responsibility for learning and teaching). The PVCs have responsibility for envisioning and enacting the educational strategy for their organisations, and are therefore, perfectly placed to interpret the apparent paradox of promoting student centred learning and building large, fixed-seat lecture theatres.

They were asked to consider the pressures, constraints and opportunities of the infrastructure decision-making process, and the results show that they were remarkably candid in their responses. The pragmatic and logistical issues of mass education dominated the outcomes, matters of educational values or quality, if considered at all, were not prioritised.

Thus, higher education builds large-class lecture theatres to alleviate time-tabling issues and avoid double teaching. The vast amount of teaching which takes place in these auditoria remains invisible within educational strategies and undiscussed within the institutions. The senior educational leaders in this study had little conception of the proportion of large lecture theatres at their institutions, or the extent to which teacher-centric approaches to learning and teaching were prevalent.

Contribution to the thesis:

This paper looks at the role of physical infrastructure in both reflecting and influencing approaches to learning and teaching; as with Wenger's metaphor of a river, whose path both shapes, and is shaped by, the mountain down which it runs (2008).

The theory of action is introduced in this paper and explored more fully in the general discussion (Chapter 5). The interviews in this study most clearly illustrate

the very real dilemmas of mass education, but also the contortions institutions will perform in order to avoid directly confronting the mismatch between their espoused theories of education, and their theories-in-use.

Chapter 5 – General Discussion

> *Those who "undertake to act as schoolmaster for several minds diverse in kind and capacity, using the same degree of guidance for them all, not surprisingly can scarcely find in a whole tribe of children more than one or two who bear the fruit from their education." Michel de Montaigne [1572] (1993, p. 110)*

Universities across Europe publicly advocate for student-centred approaches in learning and teaching – their *espoused theory* (what they say they do) – through their educational strategy documents and quality assurance processes (Loughlin et al., 2021; Loughlin & Lindberg-Sand, 2023). This espoused theory aligns with contemporary educational research suggesting that student-centred approaches can enhance understanding, retention, and application of knowledge (Trigwell & Prosser, 2020). However, the *theory-in-use* (what they actually do) is observed as the widespread continuation of teacher-centric transmissive lectures, where information flows from instructor to student with limited interaction or feedback (Gynnild et al., 2021; Schoepp, 2019; Stains et al., 2018).

The efficacy of these transmissive lectures, within the Argyris and Schön framework (1996), could be considered in terms of how well they achieve the stated educational goals of the institution. If universities espouse student-centred learning outcomes such as critical thinking, problem-solving, and deep understanding, then the widespread use of lecture-based teaching might represent a misalignment with these goals. Research indicates that while lectures can efficiently transmit information, they are often less effective than active learning strategies in developing higher-order thinking skills and deep understanding. For instance, Freeman et al. (2014) and Deslauriers et al. (2019) found active learning increases student performance in science, engineering, and mathematics.

Argyris and Schön (1996) also introduce the concept of Model I and Model II behaviours. In the context of university teaching practices, Model I might involve making minor adjustments to lectures to try to increase engagement or learning outcomes, without questioning the fundamental approach. Model II, however, would require examining and possibly challenging the underlying assumptions about approaches to learning and teaching, potentially leading to more significant changes in practice towards student-centred methods. The persistence of lecture-

based teaching, despite evidence suggesting its limitations, might indicate a systemic issue within higher education institutions related to Model I behaviours.

The theory of action framework also allows for the exploration of why universities might find it challenging to shift from teacher-centric to student-centred learning practices. Factors such as institutional inertia, academic development, academic freedom, personal preferences, assessment practices, and resource constraints could all play a role. These barriers could prevent the alignment of theory-in-use with the espoused theory of student-centred learning.

While transmissive lectures can be effective for certain types of learning objectives (e.g., conveying foundational knowledge), they often do not align with the broader educational goals associated with student-centred learning. Therefore, the dichotomy of espoused theory and theory-in-use not only highlights a misalignment in educational practices but also calls into question the commitment of universities to their stated educational philosophies and the need for systemic changes to reconcile this discrepancy.

The appended papers look at the espoused theories and theories-in-use of universities at a policy/quality assurance level (paper I), in teaching practice (papers II & III), and physical teaching spaces (paper IV). This chapter draws together the four articles and explores their findings in relation to the dichotomy of universities' espoused theories of student-centred approaches to learning and teaching and their theories-in-use.

Large-class teaching in (the Theory of) Action

Argyris and Schön's theory of action is a theoretical framework that distinguishes between *espoused theory* (what people/organisations say they do) and *theory-in-use* (what people/organisations actually do). They argue that: 'If theorists of organisational learning seek to be of use to practitioners, they must somehow link organisational learning to the practitioners' thought and action' (Argyris & Schön, 1996, p. 6); therefore, this discussion will attempt to show the links between higher education's thought and action in their approaches to learning and teaching.

> 'Theory of action, whether it applies to organisations or individuals, may take two different forms. By "espoused theory" we mean the theory of action which is advanced to explain or justify a given pattern of activity. By "theory-in-use" we mean the theory of action which is implicit in the performance of that pattern of activity. A theory-in-use is not a "given". It must be constructed from observation of the pattern of action in question' (Argyris & Schön, 1996, p. 13).

Higher Education Institutions (HEIs) stress the use of student-centred pedagogies in most of their literature, yet much *practice* appears to involve teacher-centred approaches to learning and teaching. To test the hypothesis that universities operate on a Model I theory of action, their observable behaviours will be mapped against the main criteria set out in the theory of action using evidence collected in the four appended papers.

The discussion deliberates the extent to which the theory of action (as outlined in paper IV) might provide an explanation for the apparent dichotomy of universities advocating student-centred approaches to learning and teaching while fostering a teaching environment that contains a great deal of teacher-centric practice.

Issues of individual academic's espoused approaches to learning and teaching and teaching practice have been discussed within academic development circles for decades (e.g., Murdoch University & Phillips, 2005). The focus of this discussion, however, is the dichotomy of *institutional* claims of student-centred approaches to learning and teaching and the large quantity of transmissive lecturing that still takes place during large-class teaching (e.g., Gynnild et al., 2021; Stains et al., 2018). To what extent can the work of Argyris and Schön explain a disconnect between universities' claims about their 'research informed teaching' and the teacher-centric practice so often observed?

Espoused Theories of Teaching Practice

To establish what Universities espoused theories of learning and teaching are, publicly available websites and documents were examined, including: national and international policy guideline (paper I), curriculum documents, quality assurance processes (papers I-III), and educational strategies (paper IV).

The first three (randomly selected) UK University education strategies from an internet search (search term: 'university education strategies') state that there is:

- 'evidence-based innovation in education';
- 'evidence-based innovative practice'; and
- 'experiential, active and discursive modes of delivery on all courses.'

Only the third example even attempts to moderate expectations of evidence-based, research-informed, teaching practice. More than thirty further educational strategy documents from randomly selected UK universities were examined and the words 'innovation', 'evidence-based', 'active', and 'collaborative', appear in the vast majority of them. No mention of 'large-class', 'transmissive', or 'traditional' lectures was made; in fact, only one mention of 'lectures' appeared.

Quality Assurance (QA) processes also demand outcomes-based approaches to learning and teaching with evidence of collaborative or active learning approaches

embedded in the curriculum. Specifically at the European level via the Bologna Accord, where constructive alignment has been explicitly referenced since 2015 (Loughlin et al., 2021). Accordingly, all validated teaching modules (courses), must (theoretically) include elements of active-learning, group work, collaborative, or interactive learning.

> 'While [learning outcomes (LOs)] did not feature in the original [Bologna] declaration, they were included in the 2003 Berlin Communiqué and have since become the core component for evidencing qualifications at the European level [constructive alignment] is explicitly referenced from 2015 onwards. Three policy documents work together to outline the nature of the alignment across nations: The Qualifications Framework, the ECTS Users' Guide and Guidelines for Quality Assurance in EHEA. These display a tight theoretical and conceptual construction with LOs applied from individual modules through to the programme level. This external alignment offers symbolic meaning to qualitative descriptions of the qualification's students have acquired. However, it is supposed to be not only symbolically but actually aligned, the guarantee being the professional contribution from academics supported by [Constructive alignment]' (paper 1: Loughlin et al., 2021).

Therefore, on the basis of education strategies and the validated QA documentation, the espoused theory of learning and teaching for UK higher education institutions is innovative, evidenced-based, interactive, *and* student-centred.

Institutional Theory-in-Use

Teaching staff point out some of the structural barriers to implementing student-centred approaches to learning and teaching, such as: large class sizes, lack of preparation time in workload allocation, fixed seat teaching spaces, lack of training, student attitudes, and the organisational or departmental culture (Loughlin & Lindberg-Sand, 2023; Roxå et al., 2011; Tawalbeh & AlAsmari, 2015).

> 'These classes are often taught entirely in the lecture mode, with tests that often call for low levels of student understanding. Rarely are students asked to process their learning […] It is a sad commentary on our universities that the least engaging class sizes and the least involving pedagogy is foisted upon the students at the most pivotal time of their undergraduate careers: when they are beginning college. The literature on students' responses to large-class learning environments is limited and not encouraging' (Cooper & Robinson, 2000, pp. 6–7).

Teaching practice varies widely, and it is not feasible to know what takes place in the majority of teaching spaces, although, available evidence suggests that teacher-centric, transmissive approaches remain widespread (Gynnild et al., 2021; Loughlin & Lindberg-Sand, 2023; Stains et al., 2018). There are conclusions that can be

inferred from HEIs behaviour; for instance, in randomly selecting twenty HEIs from an internet search of UK universities, all bar one have large-class lecture theatres, and over half have recently built, or are in the process of building, large lecture theatres, which have been shown to encourage teacher-centred approaches to learning and teaching (paper IV; Baepler et al., 2014; R. Beichner, 2005).

Individual lecturers own beliefs about learning influence their approaches to practice (Fischer & Hänze, 2020; Trowler, 2019). Nasrallah found that a 'more traditional approach still dominated regardless of what was stated in the course syllabi' (2014, p. 268). Another study's 'bleak findings' raised a number of concerns regarding the validity and reliability of proxies used to establish student-centred learning for accountability, and concluded that policy-imposed learning outcomes 'failed to provide any evidence that good teaching is occurring' (Schoepp, 2019, p. 625).

While it is not possible to state with any accuracy the proportion of teacher-centric transmissive practice that takes place, all the available evidence suggests that it is commonplace. For example, in one institution more than 50% of the available (non-specialist) teaching space was large-class fixed-seat lecture theatres (paper IV). Furthermore, the QA processes intended to guarantee student centred approaches to learning and teaching have proved to be superficial and ineffective (paper I).

Governing Variables for Learning and Teaching

Governing variables are those dimensions of a situation that institutions try to keep within acceptable limits (satisfice). Any action is likely to impact upon a number of such variables – thus any situation can trigger a trade-off among governing variables. In a Model I scenario actors will go to extraordinary lengths to avoid challenging or changing the governing variables.

> 'Governing variables are the preferred states that individuals strive to "satisfice" when they are acting. These governing variables are not the underlying beliefs or values people espouse. They are the variables that can be inferred, by observing the actions of individuals acting as agents for the organisation, to drive and guide their actions' (Argyris, 1999, p. 68).

The governing variables that could reasonably be inferred from institutional behaviours in relation to learning and teaching might include:

- Module evaluation questionnaires (MEQs)
- Student satisfaction scores (NSS)
- University rankings
- Teaching excellence framework rating (TEF)

- Organisational efficiency
- Organisational reputation

There are several tensions that exist between these variables, for example, MEQs rely on students being happy with the teaching on individual modules, and their happiness can be at odds with the actual quality of the teaching and/or the learning. For instance, Tight (2021) found no correlation between students opinions about the quality of the teaching and the quality of teaching observed. Deslauriers et al. (2019) found that students thought that they learned more from transmissive lectures than from active learning approaches, while the opposite was true. Therefore, academics engaging with the active learning approaches to learning and teaching advocated by the institutional literature and QA processes might suffer in MEQ and NSS ratings.

The UK Teaching Excellence Framework rating (TEF) is an instrument used by the Office for Students (OfS) to rate universities' quality of teaching (Gold | Silver | Bronze), based on things like the NSS, completion rates and outcomes. The TEF rating affects both the institutional reputation and some university rankings, which in turn affect recruitment. Maintaining academic standards are essential in protecting the reputation of the university, however, drop out and progression rates are directly linked to the TEF rating, and universities can be financially penalised by the OfS if they are considered to be too high (Adams, 2022). And so, while the TEF is intended to promote teaching excellence, it actually incentivises transmissive lectures (because that is what students prefer – if asked) (Carpenter et al., 2020) and the lowering of academic standards (in order to reduce the failure and dropout rate).

Thus, while it might be desirable to pursue a certain course of action, there could be unintended consequences which risk taking other governing variables outside of acceptable limits.

Defensive behaviours and the undiscussable nature of large lectures

If the Model I 'theories of action' were to hold true, then we might expect to see defensive routines in relation to large-class lectures and the nature of the dichotomy becoming undiscussable.

> 'Organisational theory-in-use may remain tacit because it is indescribable or undiscussable. It may be indescribable because the individual members who enact it know more than they can say and are unable rather than unwilling to describe the know-how embedded in their day-to-day performance of organisational tasks. It may be undiscussable because any attempt to reveal its incongruity with the organisations espoused theory would be perceived as threatening or embarrassing.' (Argyris & Schön, 1996, p. 14)

Some of the behaviours which would suggest defensive routines and undiscussability might be:

- Resistance to pedagogical training for academics (or change generally)
- Peer disapproval towards faculty who implement more progressive (student-centred) models
- Career advancement with a focus on research - teaching seen as secondary
- Superficial institutional rewards for 'innovative teaching'
- Lack of rigorous evaluation mechanisms for teaching practices
- Absence in policy discourse acknowledging lecture dominance as an issue
- Rationalisation, treating lectures as a necessary evil or default option
- Student complaints when shifting away from familiar passive (teacher-centred) learning

If institutions are advocating student-centred learning while simultaneously delivering large-class transmissive lectures, there could be a level of embarrassment in confronting this publicly.

> 'One of the most powerful ways people deal with potential embarrassment is to create organisational defensive routines. I define these as any action or policy that prevents human beings from experiencing negative surprises, embarrassment, or threat, and simultaneously prevents the organisation from reducing or eliminating the causes of the surprises, embarrassment, or threat. Organisational defensive routines are anti-learning and overprotective.
> These defensive routines are organisational in the sense that individuals with different personalities behave in the same way; and people leave and new ones come into the organisation, yet the defensive routines remain intact […]
> The logic of the ambiguous strategies is encapsulated in the following four rules:
>
> - Design a message that is inconsistent.
> - Act as if the message is not inconsistent.
> - Make the inconsistency in the message and the act that there is no inconsistency undiscussable.
> - Make the undiscussability of the undiscussable also undiscussable.'
>
> (Argyris, 1999, p. 141)

Certainly, the 'mixed messaging' becomes apparent in the discrepancy between the educational strategy documents and other institutional literature which promise student-centred teaching, and the provision of physical teaching spaces, workload allocation, and other barriers which militate against that (Tawalbeh & AlAsmari, 2015). Some lecturers are aware of the issue, as can be seen from the case study of large-class teaching and the research presented in this thesis:

> The lecturer acknowledges that there is a 'big push to try and make things kind of interactive but I feel that's virtually impossible with that number [of students…] 80/90% of it is just me talking […] I don't really see any way round that'. She continued, saying that the physical space of the lecture hall was limiting, which combined with the volume of material that they had to go through, and the 'huge two-hour long blocks', were 'not really highly conducive to learning [but] the students keep coming to the lectures if you're an engaging speaker.' (Loughlin & Lindberg-Sand, 2023, p. 290)

This lecturer goes on to confirm that the priorities for career advancement are research, and that as a consequence, a lot of her colleagues resent their teaching commitments, often resulting in 'terrible lectures' (ibid). Bligh (1972) points out that less experienced lecturers are more likely to deliver transmissive teaching sessions, and the case study above also highlights the fact that large-class lectures are regularly allocated to the most junior members of staff. Furthermore, the departmental culture in that case precluded any discussion about teaching practice, to the extent that the lecturer went to the first lecture of the semester (delivered by the module leader) to find out what the students would be expecting. And this acknowledgement of the dichotomy is from an interview with senior academic management at another institution:

> "Now you need to understand our ecology is quite different, so we are not a big lecture institution. If you look at […] the nature of our teaching, a lot of it is small group teaching […] I can't quite trot out the figure, but at the moment […] 35% is probably largely lectures […] we've got about four or five disciplines in which those big lectures exist. And so… we've got a bit of a contradiction, haven't we? Because in one sense, we've been saying to them 'You need to make the lecture more interactive' [but then putting them in large lecture theatres…] it's going to take me a couple of years to untangle that contradiction, I suspect" (pvc#4) (paper IV).

Possibly linked to the resentment felt by some academics to the time they have to spend on teaching rather than researching is resistance to academic development programmes. This resistance has been widely documented (e.g., Quinn, 2012; Roxå & Mårtensson, 2017). Trowler suggests that universities in general are sometimes portrayed as change averse and that: 'There is lots of talk but little action; lots of strategic discussion but business as usual […] Only the 'usual suspects' are engaged with reform; others quietly withdraw or actively oppose change' (2019, p. 123). While going on to say that in some contexts universities are 'very adept at adapting to' current circumstances, that the 'past is evident in the practices of today and shapes what is possible for the future. Although often inappropriate, the practices and discourses from decades and even centuries ago are still found in even the most modern contexts, they are incredibly resilient' (2019, p. 152).

Teaching awards for innovation tend to be limited in their impact on individuals' career progression and also on the teaching culture within institutions, often seen as

the poor relation to research output. The 'lack of connection between teaching awards and pay and promotion decisions may hamper award effectiveness' (Seppala & Smith, 2020).

The TEF, which implies that it measures teaching quality, actually measures student satisfaction (which has been shown to be unrelated to quality (Ashwin, 2022; Tight, 2021), and retention/dropout rates etc, which again, may be unrelated to teaching quality.

> 'Very few, if any, of the measures used are valid or reliable indicators of the quality of education or research but instead simply mirror the wealth and prestige of universities […] Despite their misleading nature being widely known and understood, the performance of universities in these rankings is still used to recruit students, and governments around the world use them to determine funding for students and initiatives. All are being deceived. Any form of university education that claims its quality is demonstrated through commercial university rankings has been mis-sold' (Ashwin & Heim, 2024).

Countries in the OECD 'looked to establishing quality assurance audits of higher education activities including that of teaching' (Harrison et al., 2022, p. 80). However, 'It was evident that the adoption of any given method of quality assessment does not necessarily lead to any enhancement of teaching quality' (Harrison et al., 2022, p. 90). Peer review of teaching, when part of appraisal structures, is an obvious quality control and professional development mechanism. However, it has been resisted as it is labour intensive and impacts on academic autonomy, any 'attempt to use the [peer review] data for summative decision-making, or even the belief that this may occur, has the potential to lead to gaming of the system in order to generate inflated data regarding teaching quality' (Harrison et al., 2022, p. 92).

It is difficult to evidence the 'absence' of discourse in relation to the dichotomy of espoused theories of teaching and teaching practice, in fact, there are plenty of research articles which explore this issue from the perspective of individual academics (e.g., Fischer & Hänze, 2020), but none found that look at the issue from an institutional perspective. Even the physical lecture theatres are undiscussable:

> 'In the UK, capital spending on university buildings is now approaching £3bn annually, with estates spending more broadly being about 11% of total income for the sector (2015/16 figures). Given the amount of money at stake, not to mention the wider effectiveness benefits […] possible, some research effort, beyond that taking place in architecture, design, estates management and related professional areas, might be considered a good investment of academic labour.' (Temple, 2018, p. 137).

The 'defence' of lectures provides another rich seam of material on this topic. As mentioned earlier, articles criticising the lecture tended to be empirical (evidencing the efficacy of some alternative, student-centred, approach), while the majority of

articles and opinion pieces defending the lecture method were less amenable to empirical determination (see also paper III on this topic). For instance, responding to a conference presentation outlining empirical findings relating to active learning approaches by Nobel prizewinning physicist Carl Wieman (2017), a senior VP from a UK university argued that the 'religious zeal' of active learning advocates ignored the value of 'traditional lectures'. Going on to call the claims made on behalf of active learning 'half-baked nonsense' and 'horse manure' (Grove, 2018). He provided no evidence for his claim of 'significant studies showing the efficacy of the lecture' (ibid). While generally less colourful in their language, other remarks made in defence of the lecture include:

- that they can 'satisfy the need for dramatic spectacle and offer an interpersonal arena in which important psychological needs are met' (Woodring & Woodring, 2011, p. 120);
- 'attendance at lectures has a magical rather than a real significance' (Körner, 2004);
- they 'encourage deep, transformative thinking' (Webster, 2015, p. 102);
- they are 'the fundamental ritual of academic life' (Furedi, 2013);
- they 'model critical civic participation' (Tokumitsu, 2017);
- lectures 'teaches students listening/attention skills, grit and persistence, accountability, and the importance of respecting status differences' (Offstein & Chory, 2019, p. 353);
- the 'lecture is the site for, and the possibility of, the passionate utterance' (Fulford & Mahon, 2020, p. 373).

Of the articles cited, none contained claims that were supported by empirical evidence. There appears to be a reluctance to confront the lecture's efficacy on empirical grounds and a reluctance to discuss that reluctance, i.e., the undiscussability becomes undiscussable (Argyris, 1999).

The dichotomy explored

The weight of educational research would suggest that student-centred approaches to learning and teaching are more effective than teacher-centric lectures (in terms of academic outcomes), although, there is sufficient variability in the research to urge caution when making generalisations about learning and teaching practice. That said, this thesis is concerned with the dichotomy of the espoused theories of learning and teaching by universities and their theories-in-use, not the efficacy of particular approaches.

It is important to reiterate here that in higher education there are a multitude of approaches to learning and teaching, both within and between disciplines, and a further dimension of individual differences. There is no commonly accepted definition of a 'lecture' and no reliable audit of what takes place in the majority of

lecture theatres. Even taking this into account, there is sufficient evidence to be confident in the claim that there remains a great deal of large-class teaching that is teacher-centric and transmissive in nature.

The analysis presented in this thesis provides evidence to support the hypothesis that in terms of approaches to learning and teaching, most universities operate based on a Model I theory of action. Specifically, in their continued reliance on teacher-centred transmissive large-class lectures. There is a clear disconnect between the espoused values outlined in institutional education strategies and quality assurance processes which emphasise student-centred, active learning approaches, and the actual teaching practices observed across many universities, where transmissive, teacher-centric lectures persist as a dominant method.

> Organisational defensive routines are caused by a circular, self-reinforcing process in which individuals' Model I theories-in-use produce individual strategies of bypass and cover up, which result in organisational bypass and cover up, which reinforce the individuals' theory-in-use. The explanation of organisational defensive routines is therefore individual *and* organisational (Argyris, 1999, p. 59).

Several defensive routines and behaviours consistent with Model I were identified (in this discussion and paper IV) that enable universities to maintain this disconnect and make it undiscussable. These include resistance to pedagogical training, prioritisation of research over teaching, superficial rewards for teaching innovation, lack of robust evaluation of teaching quality, and rationalisation of lectures as a necessary evil or default option.

Defensive routines hinder the collective openness to questioning assumptions about learning and pedagogy. Until and unless HEIs openly acknowledge the amount of face-to-face teaching that remains teacher-centric and transmissive, there can be no conversation about what changes need to be made in order to facilitate the student-centric approaches to learning and teaching to which they are ostensibly committed.

> "From my perception […] we have very few lecture theatres. So, the whole sort of [discussion about] lecture theatres [being] over [and] moving to [a] post-lecture theatres [education]. Well. We haven't got any anyway […] and actually, it's not [as] over as you might think. And actually […] we've been quite good at developing these other types of learning spaces" (pvc#11).

> Note: excluding labs and specialist spaces, this particular institution has twenty-three large-class fixed-seat lecture theatres, which represent 25% of centrally managed teaching spaces (57% of seating capacity) (paper IV).

The analysis also revealed key governing variables that universities seek to keep within acceptable limits, often resulting in trade-offs when actions impact multiple variables. Variables like student satisfaction scores, rankings, completion rates,

reputation, and efficiency frequently take precedence over enhancing teaching quality and student learning. Initiatives meant to address teaching quality, like the TEF, have questionable methodologies and could even be counterproductive to their stated aims (Ashwin, 2022).

> 'Moreover, thanks to the organisational defensive routines – with their accompanying sense of helplessness, cynicism, and doubt about any change – the anti-learning and overprotective features will eventually be taken for granted. They will be viewed as necessary evils of organisations' (Argyris, 1999, p. xv).

The undiscussable nature of the disconnect and defensiveness around changing established lecturing practices is evident through the rhetoric used to defend and protect the lecture method, despite lack of empirical evidence to support many of the claimed benefits. Most literature on the topic of lectures is polemic, with strong emotional responses evinced on both sides of the argument. This adds to the undiscussable nature of lectures because anyone voicing an opinion knows they are likely to be attacked, and the chances of an open and honest reflection on the place of lectures in higher education are further diminished.

Institutions set up potential conflict by encouraging (indeed requiring) academics to teach in a way that the institutions themselves have made difficult through the structural design of the organisation (large fixed-seat lecture theatres and workload allocations etc.). They avoid this conflict by creating reward mechanisms through which academics can bypass the requirement to teach in student-centric ways without penalty. This dichotomy becomes undiscussable, and the bypassing of the conflict is also undiscussable – 'and their undiscussability is undiscussable' (Argyris, 1999, p. 93).

Summary of theory in action in relation to large-class teaching

Model I behaviour entails preserving the status quo by ignoring the dichotomy and suppressing any discussion. Institutions and academics (and to an extent, students) are complicit in this. Much is hidden in the name of academic autonomy and freedom. Academics are 'encouraged' to adopt active learning and are given 'free reign' to teach as they please, yet they are not provided with the time, training, or the reward mechanisms to make student-centred practice a likely outcome (Loughlin & Lindberg-Sand, 2023). So long as the students do not complain too much and keep the governing variables of student satisfaction and outcomes within acceptable limits, then academics are free to follow the path of least resistance, to deliver transmissive lectures, and devote their energies to research.

> 'A theory about paradoxes must explain why human beings create a world that is contrary to the world they intend, or if they do intend the world, then how do they

> explain their actions by asserting that they are forced to act as they do?' (Argyris, 1999, p. 95).

The paradox of universities advocating student-centred approaches to learning and teaching while delivering large-class teacher-centric lectures is widely known but rarely discussed. Argyris and Schon's theory of practice goes a long way to explain the behaviours of individuals and institutions in relation to this, and why there might be a lack of discussion.

There are limitations as the focus of their work is the corporate world, from which not everything maps neatly onto a higher education setting. The relationships between various parts of the university are more complex than those of simply managers and managed, or profit and loss. Academic autonomy (while under threat and being eroded) is real, and imposing top-down directives would be problematic. While a number of institutions have eliminated large-class teaching in favour of active learning approaches, they have not been able to reap demonstrable benefits in terms of rankings. Therefore, as yet, there is even less incentive for others to follow suit and risk damaging metrics that impact on rankings and recruitment.

> 'Most HEIs espoused theories of education and their theories-in use do not match. They cannot publicly discuss the educational and logistical issues associated with large-class lectures, because then they would have to acknowledge their existence, explain the paradox, and defend their inclusion in the curriculum. Large-class lectures then become undiscussable, and to a large extent invisible. And so, it would appear that, rather like an ill-fitting suit, the educational strategy documents of most institutions *fit where they touch*' (paper IV).

Ultimately, the analysis indicates that the prominence of the lecture stems less from its efficacy as a teaching method and more from its utility in enabling universities to operate smoothly and maintain the status quo across multiple governing variables. Shifting entrenched practices involves addressing defensive routines and making the tensions discussable in an open, solutions-oriented manner. More research is needed from an institutional perspective to induce evidence-based changes that better support student learning.

The familiar

I would like to conclude this discussion with a brief reflection on the experience of conducting this research. In questioning the role and value of transmissive teaching it has been suggested that I am anti-lectures. Having contemplated this at length, I do not believe that this is really the case. I have no reason to doubt the superiority of student-centred approaches to learning and teaching that the weight of the literature suggests; although, I remain slightly sceptical that some of the more impressive results generated with student-centred approaches could be replicated at

scale. But, like countless others, I have attended and enjoyed many lectures over the years.

Implicit in the suggestion of being anti-lectures is the implication of a potential for bias in the way that the research was framed, which may have preordained the findings of the studies. As the sole researcher in the empirical studies my influence over the outcomes is undeniable. I wrote the survey questions, and conducted the interviews and focus groups. However, I was conscious of how the research might be received and made an effort to garner different perspectives. In the case study, the second focus group was conducted explicitly to draw out the positive aspects of attendance for students, and literature in support of the lecture actively sought out. That there was almost no empirical evidence in support of lectures as a pedagogical approach came as a surprise.

I think what I expected, before setting out on this project, was to find a more conscious institutional rationalisation for the use of large-class lectures. But there is none. Even when asked very directly about the misalignment between their espoused educational approaches and the use of transmissive lectures, most of the PVCs from the interview study (paper IV) could not really articulate a response. It is the givenness of large-class lectures in higher education that has made this research so challenging, no rationalisation or justification appeared to be required, and in many cases the familiarity of the lecture meant that people could not really grasp why the format was being questioned. Lectures just are.

I have worked in higher education for the last twenty years and been fortunate enough to have had various roles in, and on the periphery of, learning and teaching. The thing that has struck me the most in relation to the topic of large-class transmissive lectures is the profound silence on the issue. Transmissive lectures represent a substantial proportion of teaching for most universities; yet they are rarely, if ever, mentioned in educational strategies, and equally rarely, if ever, discussed by academics outside the context of attendance and timetabling (logistical) issues. Few institutions collect attendance data or have mechanisms (other than assessment) for understanding how, or if, the lectures contribute to student learning.

In quality assurance and module validation documentation (intended to ensure student-centred pedagogies), lectures, which represent most, and sometimes all of the face-to-face teaching (for typical mass-education institutions), are included without comment or explanation.

And so, one of the limitations of this research has been the lack of data relating to large-class teaching, and attempting to engage in an academic discourse where there is practically none. No one knows (even within individual institutions) how much of the teaching takes place in large, fixed seat lecture halls, and certainly not what proportion of the overall teaching could be considered teacher-centric or transmissive. For instance, none of the pro-vice chancellors for education,

interviewed in paper IV, knew how many fixed-seat lecture theatres they had at their institutions or what proportion of the teaching estate those spaces represented.

How is it that a pedagogy which appears to undermine the espoused educational values of higher education, and represents a substantial proportion of large-class teaching, can escape scrutiny in this way?

In his introduction to *Common Sense* in 1776, Thomas Paine wrote: 'a long habit of not thinking a thing wrong, gives it a superficial appearance of being right' (2008); Nietzsche goes further in arguing that traditions assume a disproportionate status over time, and eventually the tradition 'becomes holy and inspires awe' ([1878] 1908, p. 96). More recently Shils, talking of the way that tradition becomes established said: 'One of the main reasons why what is given by the past is so widely accepted is that it permits life to move along lines set and anticipated from the past experience and this subtly converts the anticipated into the inevitable and the inevitable into the acceptable' (2007, p. 198).

If this explains how traditions become accepted, how do they become undiscussable? Hegel's (2013) concept of the familiar adds a further dimension to the work of Argyris and Schön by suggesting that our daily encounters with particular phenomena can become so commonplace to us that they cease to provoke critical reflection.

Hegel (2013) suggests that familiarity often obstructs genuine understanding. He contends that when something is familiar, we tend to assume that we comprehend it fully, when in reality, this assumption may lead to superficial engagement. Familiarity can create the illusion of knowledge, encouraging acceptance without critical examination. According to Hegel, the most common form of self-deception or deception of others occurs when we uncritically accept something simply because it is familiar.

Hegel goes on to say that as a result of this familiarity the phenomena in question can become *invisible;* and this, I believe is what we see in relation to large-class transmissive lectures. The normative status of 'traditional' lectures goes unquestioned due to their standing as 'traditional'; this is despite the fact that large-class transmissive lectures in today's context of mass education bear little resemblance to the historical lectures on which they lay claim.

The historical professorial lectures of elite university education rarely exceeded a few dozen students and more importantly, the lectures themselves were largely supernumerary to the tutorial system which was the primary means of teaching. This is contrasted with the contemporary lectures of mass education where numbers regularly run into many hundreds of students; and the lectures themselves represent the primary, sometimes only, pedagogy employed. The implicit assertion of the use of the term 'traditional lecture' is that today's students of mass education are enjoying the educational experience of yesterday's academic elite. They are not.

The students do not complain because the majority pass their examinations. Bourdieu suggests that universities are able to maintain the fiction that lectures are effective only due to the complicity of the staff and students who enable it:

> 'The academic institution is able to forestall this extremity [the exposure of the fiction that professorial lectures are understood and are effective] because while students and their lecturers have a theoretical and long-term interest in challenging how universities work, they have a practical and short-term stake in preserving the fiction which performs vital functions for them in a situation in which they have to act and of which they are the product' (Bourdieu et al., 1996, p. 14).

The cognitive dissonance of the higher education sector, which recognises the limitations of large-class lectures, while finding ways to rationalise their continued inclusion in the curriculum, is exemplified in the 1963 Robbins Report which states:

> 'We have received from both university teachers and student organisations extensive complaints concerning methods of instruction. The substance of these complaints has been nearly always the same: undue reliance on lectures, often delivered with too little consideration of the needs and capacities of the audience' (Robbins, 1963, p. 186).

Robbins accepted these complaints while on the very next page, going on to say:

> 'Conversely […] a well-planned and well-delivered series of lectures can […] be a source of stimulus and inspiration. We are particularly thinking here of lectures to large audiences [which] are particularly valuable for first-year students' (Robbins, 1963, p. 187).

The unsupported assertions made here are the result of a combination of a claim on an idealised tradition of professorial lectures, and the invisibility of the familiar. These ensure that the lecture does not face *too* many awkward questions regarding its place in the curriculum; and that nobody looks *too* hard for evidence of efficacy in relation to student outcomes.

Thus, to answer John Dewey's question as to why transmissive lectures persist: none of the stakeholders have a good enough reason to disrupt the status quo.

Chapter 6: Conclusion

> *"Quite generally, the familiar, just because it is familiar, is not cognitively understood. The commonest way in which we deceive either ourselves or others about understanding is by assuming something as familiar, and accepting it on that account." Hegel [1807] (2013, p. 18)*

In answer to the question "why do lectures persist in contemporary higher education?", a common response is because they are "cheap as chips" (paper IV). While cost effectiveness is certainly a factor, it is not the driving force.

The path of least resistance

The main reason, based on the findings of this research, seems to be because it is the path of least resistance for all the stakeholders. Institutions build large lecture theatres to solve a logistical problem, academics teach in them to limit their teaching hours in order to focus on their research, and students like the passivity of the format, believing that they are learning.

> 'The passive lecture gives the impression of a fluent, smooth, and seamless learning experience, whereas active learning creates a more disjointed, less fluent experience, in that students may need to think more deeply about, and struggle with, the material to understand and apply it. It is perhaps no surprise, therefore, that many students resist active learning techniques on the grounds that they feel they are not learning' (Carpenter et al., 2020, p. 140)

Underpinning this is the normative status of the lecture; those actors aware of the dichotomy of espousing student-centred learning while practice remains steeped in teacher-centred transmissive lectures, comfort themselves with the idea that they are engaging in an age-old traditional practice – a rite of passage for each new generation of undergraduates.

Of course, the traditional lecture of their imagination is far removed from the reality of large-class lectures in contemporary higher education.

> ‘The undergraduate must realise that he is privileged to hear men, expert in their own subjects, often recognised worldwide for their research work, lecturing to them on the subject the lecturer loves so much and knows most about (Trott, 1963, p. 74).

The scale of today’s large-class lectures could probably not have been contemplated by Trott. Cohort sizes of 500-1000 are now commonplace, and regularly taught by inexperienced lecturers reading somebody else’s slides (paper II). The traditional lecture implicitly requires a traditional student, and disadvantages many of the students entering higher education due to the diversification attendant on massification.

Making the undiscussable discussable

Most HEIs’ espoused theories of education and their theories-in use do not match. They cannot publicly discuss the educational and logistical issues associated with large-class lectures, because then they would have to acknowledge their existence, explain the dichotomy, and defend their inclusion in the curriculum. Large-class lectures then become undiscussable, and to a large extent invisible. And so, it would appear that, rather like an ill-fitting suit, the educational strategy documents of most institutions ‘fit where they touch’; that is, some innovative and research informed practice takes place, but very much more transmissive teacher-centred practice is undocumented and invisible (Paper IV).

The contribution of this thesis

The prevalence of teacher-centric practice in higher education matters. The scale of that practice matters. The fact that the scale of it escapes serious scrutiny, matters.

It matters to the many thousands of students who are promised a transformational education, not just an educational ‘experience’. It particularly matters to those non-traditional students who, already disadvantaged, are further disadvantaged by the pedagogy adopted in many institutions of mass education.

Large-class lectures in fixed-seat, tiered lecture theatres dominate much of higher education. While student-centred alternatives to the lecture are regularly researched and extolled, the lecture itself remains relatively unexplored.

This research set out to better understand the place of transmissive lectures in large-class teaching, and scrutinise the apparent dichotomy of a higher education sector that espouses the values of student-centred-learning, while creating structures, processes, and physical space, that encourage teacher-centred approaches.

The findings of this research, detailed in the appended papers and general discussion contribute to educational research, and higher education practice by highlighting the

disconnect between educational theory, policy, and practice. It identifies the structures, processes and ideas that enable universities to provide an educational experience at odds with their own espoused values. These findings are here consolidated into four key areas that together help to explain the continued dominance of the traditional lecture:

The invisible lecture (papers I & IV)

The transmissive lecture is hidden in plain sight. While policy and quality assurance processes are designed to ensure student-centred approaches, 'lectures' are included in documentation without explanation or challenge. Many academics see quality assurance paperwork as bureaucratic hurdles to be navigated as painlessly as possible, and teaching practice as unrelated to the paperwork. Teacher-centred practice in large, fixed-seat lecture theatres is unseen and undocumented by the institution.

Expansive educational strategy documents make no mention of lectures, and there are no institutional mechanisms to ensure that the innovative and research informed teaching promised in the literature actually takes place; or indeed, to understand what teaching practice *does* take place.

The givenness of lectures (papers I, II, III, & IV)

The self-evident 'truth' that attending lectures is good for students, often in spite of evidence to the contrary. This *truth* is accepted by students, lecturers and institutions, largely without question. There is an assumption that learning takes place in transmissive lectures, an assumption that remains untested in most cases. There are many initiatives to encourage students to attend lectures, very few to ensure that once there, they have a meaningful educational experience.

An unintentional pedagogy (papers I, II, III, & IV)

Linked to the givenness of lectures is a lack of pedagogic intentionality, an assumption that by 'covering' the course content in lectures, the students will, by a process of osmosis acquire said content. In the case study (papers II & III) students and lecturers could not articulate what they thought the purpose of lectures were, or how they contributed to student learning.

The absence of intentionality runs counter to the principles of constructive alignment, the curriculum theory embedded in UK and European quality assurance processes, in which learning 'activities' should be explicitly aligned with learning outcomes; and is an example of how a curricula tool with the possibility of enhancing learning and teaching is reduced to an administrative tick-box exercise that has little real influence on teaching practice. The early-career lecturers from paper II & III had not even seen the module validation documentation and were given no training or guidance in how to approach their assigned teaching.

The lecture as tradition (paper IV & Kappa)

The status of the lecture is perpetuated, in part, by the invocation of tradition. An idealised notion of the lecture method is used to avoid confronting the dissonance of espoused values and teaching practice. The framing of the lecture as traditional legitimises it, and endows it with a prestige almost entirely unsupported by educational research, allowing for the unquestioned construction of ever larger lecture theatres.

Thus, the large-class transmissive lecture is unseen or denied, its efficacy unconsidered or assumed. Universities cannot reconcile its inclusion in the curriculum and therefore it becomes undiscussable. If forced to acknowledge its existence, tradition is invoked to mask any embarrassment.

The findings from this research have significant implications for higher education policy and practice. Highlighting the dissonance outlined between theory, policy and practice will allow both policymakers and practitioners to take a more considered, intentional approach to curriculum design, and academic developers to better articulate some of the structural issues that new lecturers are likely to face when attempting to implement student centred-approaches to learning and teaching.

To summarise, the conclusion drawn from these studies is that large-class lectures are so normalised within higher education as to have become invisible. Their role in education is uncritically accepted by the majority of institutions, staff, and students alike. Institutions build large lecture theatres and staff teach in them, often without reflecting on their educational goals; it is this lack of purpose that gives rise to - *the unintentional lecture*.

Future Research

There are three main areas of research that this thesis could provide a foundation for:

Exploring the educational philosophy implicit in the observable behaviour of higher education institutions.

As touched upon in paper IV, physical infrastructure can provide clues as to the educational philosophy of the institution, further work in this area could yield insight into the implicit expectations of the type of student institutions are designing the curriculum for, which leads on to the second area.

What are the expectations of students implicit in observable institutional behaviour? This could include physical and virtual infrastructure, support mechanisms, and assessment. And do these expectations match the students who are being recruited.

And finally, what do the students think, what are their educational philosophies? What expectations do they have when coming to university and how do those expectations align with those of the institution?

It would be interesting to triangulate the relationship between institutions' espoused educational philosophies, those implicit in its behaviours and how they match the students they are actually recruiting.

Summary

This thesis explores the complex interplay between curriculum theory, policy, and teaching practice in the context of large-class lectures in higher education. The study is anchored in an analysis of the coherence between universities espoused educational values and their observable teaching practice.

A substantial proportion of face-to-face teaching in higher education is in the form of transmissive lectures in tiered, fixed-seat, auditoria. Yet, previous research has suggested that transmissive lectures are less effective than the constructivist, student-centred approaches advocated by educational theorists, academic developers, and quality assurance policies; therefore, the research interest is why they persist, and what perceived value they have for institutions, lecturers, and students.

The four articles which comprise this thesis are structured around three interrelated research projects: a critical reflection analysing the way that constructive alignment translates from a curriculum theory into teaching practice; a case study of large-class teaching; and an interview study with senior educational leaders.

The evaluation of constructive alignment in higher education highlighted the tension between its theoretical ideals and the practical constraints of large-class teaching. Constructive alignment is widely recognised as a cornerstone of contemporary curriculum design, particularly within the quality assurance frameworks. However, the analysis reveals that while constructive alignment is intended to foster student-centred learning, its translation into practice often encounters significant challenges, particularly in the context of large lectures.

The case study component of the research focuses on large-class teaching at a specific university, examining both staff and student perceptions of the lecture's role in the educational process. This case study involved classroom observations, surveys, and interviews with both lecturers and students, providing a detailed picture of the lived experiences of large-class lectures. The findings indicate that, despite the theoretical shift towards student-centred learning, the transmissive lecture remains a central, yet largely unexamined, feature of higher education. Lecturers and students alike often accept the lecture as an inevitable and unchangeable aspect of university education, with its 'traditional' status contributing to its persistence as a pedagogical method. The study reveals a remarkable lack of intentionality in the

use of lectures; they often appear to be employed more out of habit and institutional inertia than as a deliberate pedagogical choice.

The final component of the research involved interviews with senior educational leaders to explore the processes by which universities continue to invest in large, fixed-seat lecture theatres, even as they espouse values of student-centred learning and teaching. These interviews were designed to uncover the decision-making processes and rationales that underpin the construction of these spaces. The findings suggest that the persistence of large lecture theatres is often the result of a complex interplay of factors, including financial considerations, logistical issues, and the symbolic value of the lecture format. Senior leaders frequently cited the need to accommodate large student cohorts efficiently, and the influence of established academic traditions as key factors in the continued reliance on large lecture spaces. Despite an expressed commitment to student-centred learning, these leaders often appeared to lack a clear vision for how to reconcile this commitment with the practical realities of large-class teaching.

The findings of this thesis have significant implications for higher education policy and practice. It argues that the large-class lecture is a deeply entrenched, yet often unintentional, feature of higher education. Its status as 'traditional' contributes to a normalisation process that renders it invisible and unquestioned as a pedagogical method. This normalisation is further reinforced by institutional structures and decision-making processes that prioritise efficiency and tradition over pedagogical innovation.

In conclusion, "The Unintentional Lecture" provides a critical examination of the persistence of large-class lectures in higher education, revealing the often-unintentional ways in which this format is sustained. The study calls for a more deliberate and reflective approach to teaching, one that aligns more closely with contemporary educational values.

Populärvetenskaplig sammanfattning

Denna avhandling undersöker det komplexa samspelet mellan läroplansteori, policy och undervisningens utformning med fokus på storföreläsningar inom högre utbildning. Studien förankras i en analys av hur sammanhangen mellan de pedagogiska värderingar som universitet formulerar i sina policys och den observerbara undervisningen kommer till uttryck.

En stor andel av undervisningen i högre utbildning sker i form av storföreläsningar i gradängsalar. Tidigare forskning har visat att storföreläsningar är mindre effektiva än sådana pedagogiska metoder som bygger på studentfokusering och aktivt lärande. De senare förespråkas av pedagogiska forskare och högskolepedagogiska utvecklare samt kommer även till uttryck inom universitetens läroplaner och kvalitetssystem. Det grundläggande forskningsintresset i denna avhandling är därför varför storföreläsningar fortfarande lever kvar och är vanligt förekommande samt vilken betydelse de tillskrivs såväl av lärare och studenter som av universiteten själva.

De fyra artiklar som utgör stommen i avhandlingen bygger på tre olika forskningsprojekt som hänger ihop med varandra: en kritisk reflektion över vad som händer när läroplansteorin om konstruktiv länkning används i olika pedagogiska sammanhang, en fallstudie av hur studenter och lärare upplever en serie storföreläsningar i en kurs samt en intervjustudie med seniora universitetsledare om orsakerna till att det fortfarande byggs gradängsalar för storföreläsningar.

Analysen av hur teorin om konstruktiv länkning används inom högre utbildning synliggör spänningen mellan dess teoretiska ideal och svårigheten att använda den i undervisningen. Konstruktiv länkning rekommenderas som en hörnsten i modern läroplansutveckling och används för att formulera lärandemål och granska kvaliteten i högre utbildning. Analysen visar att även om konstruktiv länkning är avsedd att främja studentcentrerat lärande, går det inte att avgöra om den fungerar så förrän undervisningen förverkligas i mötet mellan studenter och lärare, vilket inte går att läsa ut av läroplanen.

Fallstudien innefattar en kursmodul som bestod av storföreläsningar vid ett specifikt universitet och undersöker både lärares och studenters uppfattningar om föreläsningens roll i den pedagogiska processen under modulen. Fallstudien innefattade observationer, enkäter och intervjuer med både lärare och studenter, vilket ger en mångfacetterad bild av deras erfarenheter av föreläsningarna.

Resultaten indikerar att trots att kursplan och policys beskrev ett studentcentrerat lärande var föreläsningarna transmissiva. Både lärare och studenter accepterade föreläsningen som del av universitetsutbildningen, där dess "traditionella" status ser ut att bidra till dess fortsatta användning som pedagogisk metod. Studien påvisar en brist på medvetenhet i användningen av storföreläsningar; de verkar ofta användas mer av vana och institutionell tröghet än som ett medvetet pedagogiskt val.

Det tredje projektet innefattade intervjuer med seniora universitetsledare för att undersöka orsakerna till att många universitet fortsätter att investera i stora gradängsalar, samtidigt som de uttrycker tydliga pedagogiska värderingar kring studentcentrerat lärande och evidensbaserade undervisningsmetoder. Intervjuerna syftade till att synliggöra de beslutsprocesser och resonemang som ligger till grund för beslut att bygga gradängsalar. Resultaten antyder att processen är knuten till ett komplext samspel mellan faktorer, inklusive ekonomiska överväganden, logistiska frågor och det symboliska värdet av föreläsningsformatet. Seniora ledare hänvisade ofta till behovet av att kunna schemalägga stora studentgrupper och till etablerade akademiska traditioner som nyckelfaktorer i den fortsatta planeringen för stora föreläsningsutrymmen. Trots ett uttryckt engagemang för studentcentrerat lärande saknade dessa ledare ofta en tydlig vision för hur detta engagemang kan förenas med den praktiska verkligheten vid undervisning av stora grupper studenter.

Avhandlingens resultat borde få implikationer för policy och praxis inom högre utbildning. Den argumenterar för att anordnandet av storföreläsningar är en djupt förankrad, men ofta oavsiktlig och ogenomtänkt, del av undervisningen i högre utbildning. Dess status som "traditionell" bidrar till en normaliseringsprocess som gör den osynlig och icke ifrågasatt som pedagogisk metod. Denna normalisering förstärks ytterligare av institutionella strukturer och beslutsprocesser som prioriterar effektivitet och tradition framför pedagogisk innovation.

Sammanfattningsvis bidrar "Den oavsiktliga föreläsningen" med en kritisk granskning av varför storföreläsningar fortfarande i stor utsträckning används inom högre utbildning. Dess resultat synliggör de ofta oavsiktliga sätten på vilka detta format upprätthålls. Studien uppmanar till ett mer medvetet och reflekterat val av undervisningsmetoder som bättre överensstämmer med samtida och vetenskapligt grundade pedagogiska överväganden.

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Reclaiming constructive alignment

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ABSTRACT

Constructive Alignment (CA) is neither the panacea, nor the unalloyed evil depicted in the majority of higher education discourses. But rather, the theory is a heuristic and accessible representation of commonly agreed upon aspects of modern curriculum and educational theory, designed explicitly to support learning and teaching. However, when imposed top-down for accountability purposes, or used as a quality assurance tool, the seemingly step-by-step simplicity that gives it an administrative potential can also diminish or even destroy its relevance as an educational tool. For these reasons CA and particularly learning outcomes are often vilified amongst academic staff as a pernicious influence on learning and teaching. It has been argued that the mechanistic use of alignment and learning outcomes for validation and audit purposes can create an illusion of quality control which bears little relation to the reality of teaching practice and student learning.

This paper explores the tensions that have been created as constructive alignment has journeyed and expanded from an educational theory into Higher Education teaching policy and practice. The purpose is to reclaim its original perspective as a tool for professional academic teaching.

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Introduction

Why would Constructive Alignment (CA) need reclaiming? It is, after all, still required reading on the majority of Higher Education (HE) academic development programmes, and the embedded framework of most curriculum validation documents. T S Eliot's *The Hollow Men* describes those who have: 'Shape without form, shade without colour, Paralysed force, gesture without motion' (2004, 81). This paper examines the notion that CA has become a *Hollow Man*; one in which its journey from theory to policy and practice have created an illusion of systemic academic integrity at odds with reality.

This critical reflection will draw on a range of sources, from educational theory, policy documents, government reports, journal articles, and opinion pieces. The

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genesis for this article is the chasm that we have witnessed between HEIs corporate rhetoric of *innovative teaching* and *active learning*, supported by Quality Assurance (QA) processes (claimed to be founded on the principles of CA), placing the student at the centre of learning; and, the frequently observed delivery of transmissive lectures. The purpose is to explore any disconnect between CA as a theory described in its original form, and the theory as currently practised in HE. While much of the evidence and observations relate to UK and Swedish HE (with which the authors are most familiar), CA originates from John Biggs' teaching experiences in the Far East, Canada and Australia; much of the curriculum theory discussed emanate from the United States, and learning outcomes (LOs) have been widely promoted across Europe as a result of the Bologna Process. The context from which CA emerged; massification, diversity, internationalisation, and large class sizes; are an international phenomenon. And so, while the lens is primarily that of the UK and Sweden, many of the issues will be familiar to an international audience.

We chart the rise of CA as 'one of the most influential ideas in higher education' (Houghton 2004) and its inclusion in HE teacher training programmes and teaching practice, through to curriculum validation processes and quality assurance.

In the aftermath of Bigg's 1996 paper introducing CA, which coincided with major HE reforms and the start of the Bologna Process across Europe, there were a flurry of journal articles on the subject of CA, often focusing on LOs. However, in recent years little published work has problematized their relationship with HE. In highlighting areas of concern regarding the tensions which exist between the theory and practice of CA and LOs, we provide a contribution to the discourse in this area.

More recently, CA, along with a range of other interpretations of outcomes-based approaches, have been drawn together under the umbrella term of Outcomes-Based Education (OBE). Our position in this paper is that CA (and OBE used within this context), are qualitative tools, whose success in practice is predicated on implementation by skilled, professional educators. When the terminology is lifted from this context and used externally, for QA or audit purposes, the meanings diverge materially; one concerned primarily with the process of learning and teaching, and the other with only its product. While the policy intention is that one framework will provide enhancement *and* accountability, the two uses are in most cases we contend, mutually exclusive.

This paper first provides a brief history of the developments leading to CA and our interpretation of it as a curriculum theory. This is followed by CA's adoption by HE policy makers across Europe, and the fundamental changes that occurred as a result of repurposing CA as a QA tool. We then look at the impact of policy interventions and the responses of the academic community to CA as practiced. We conclude with some thoughts on reclaiming CA and OBE as educational tools of enhancement.

Throughout this paper, we will refer to *Aims*, *Objectives* and *Outcomes*. Within HE there is now broad agreement on their use in the context of curriculum design: *aims* tend to be a high-level statement of intentions; *objectives* (if used) describe *how* the aims will be achieved; and, *outcomes* or *intended LOs,* what the student should achieve and be able to demonstrate (e.g. Rielly 2015). Aims and objectives are often seen as teacher-focused whereas outcomes are student-focused and are typically described in terms of observable (and assessable) behaviour. In early curriculum discourse, however, *aims, objectives* and *outcomes* were used relatively interchangeably, and occasionally still are.

A history of constructive alignment

Whether you lean towards Cartesian dualism or Vygotskian monism (Liu and Matthews 2005), the idea that education is an 'active and constructive process' (Dewey 2012) is a pervasive theme in the history of educational theory. The roots of constructivist theories of learning can be traced back to the ideas of Plato (who differentiated between 'teaching' and 'telling'), and beyond. However, it was Piaget who is credited with coining the term 'constructivism' in the early twentieth century, at the same time cognitivism (which also views learning as an active and constructive process) was gaining traction in the world of Psychology. 'Cognitive approaches to learning stress that learning is an active, constructive, and goal-oriented process that is dependent upon the mental activities of the learner' (Shuell 1986, 415).

During this period, the central tenets of what was perceived as *quality teaching* were taking shape. In 1918 Bobbitt suggested teachers be 'required to write out their objectives in clear, non-technical language' (Kelly 2009, 68). Prior to this, the curriculum was principally described in terms of the course content, e.g. *Hamlet* or *Calculus*, the detail of what was to be learned, or how, remained largely unarticulated. In 1924, Charters argued that the 'ideals' of education should first be decided upon and only then should educators identify suitable 'activities' to achieve those ideals (Kelly 2009, 68). Tyler (2013) agreed that defining what education is for was the first step, cautioning, however, that identifying those purposes is subjective, and that 'a comprehensive philosophy of education is necessary to guide making those judgements' (52). It is this crucial (if problematic and contested), first step that is often either implicit, or omitted entirely, in subsequent learning design models. The vacuum regularly filled directly, or indirectly, with political ideology, bureaucracy and institutional pragmatism (e.g. Trowler 2003).

The essential framework for CA was present in Tyler's 1949 book: *Basic principles of curriculum and instruction.* Shuell (1986) further developed the themes and said that 'if students are to learn the desired outcomes […] then the teacher's fundamental task is to get students to engage in learning activities that are likely to result in their achieving these outcomes' (429). However, it was John Biggs (1996) paper *Enhancing teaching through constructive alignment*, which fully articulated the concept. He developed and expanded on it in his book *Teaching for quality learning at university:*

> 'A good teaching system aligns teaching method and assessment to the learning activities stated in the objectives, so that all aspects of the system are in accord in supporting appropriate student learning. This system is called constructive alignment, based as it is on the twin principles of constructivism in learning and alignment in teaching' (1999, 11).

For Biggs, the traditional teaching methods used in higher education relied on intrinsic motivation and highly developed study skills of an academic elite. However, he believed that with massification came diversification and class sizes 'that seem to preclude any but the same methods of teaching and assessing that aren't working' (Biggs 1999, 2).

The significant steps that Biggs made over his predecessors, were to explicitly embed a theory of learning, 'constructivism', into a model for the design of teaching in relation to the curriculum; and, to articulate the connection and direction of travel between LOs, learning activities and assessment: alignment.

> 'In constructive alignment, we start with the outcomes we intend students to learn, and align teaching and assessment to those outcomes. The outcome statements contain a learning

> activity, a verb, [that] verb says what the relevant learning activities are that the students need to undertake in order to attain the intended learning outcome. Learning is constructed by what activities the students carry out; learning is about what they do, not about what we teachers do. Likewise, assessment is about how well they achieve the intended outcomes, not about how well they report back to us what we have told them or what they have read' (Biggs n.d.).

Bigg's short description of CA mentions *activities* three times and *alignment* once. He highlights the importance of constructivism in informing instructional design decisions at every stage of the process, and the centrality of learning-activities in the creation of meaning for students. A key difference between OBE used as an educational tool, and its institutional use for validation and accountability purposes, is the shift in focus and language from that of student-centred *activities* (what the student does) to that of demonstrable *alignment* (what the teacher does, to defend their teaching in institutional documentation). It is to this shift in emphasis that we now turn.

Adoption and adaption of OBE by HE policy makers

Across Europe the political momentum of the 1990s for closer institutional alignment resulted in major HE policy and regulatory reform, culminating in the 1999 Bologna Accord which sought to 'harmonise' standards, and create a borderless European Higher Education Area (EHEA) for students and employees.

The European context

The original 29 signatories of the Bologna Accord grew rapidly and now stand at 48. While LOs did not feature in the original declaration, they were included in the 2003 Berlin Communiqué and have since become the core component for evidencing qualifications at the European level, CA is explicitly referenced from 2015 onwards. Three policy documents work together to outline the nature of the alignment across nations: The Qualifications Framework, the *ECTS Users' Guide* and *Guidelines for Quality Assurance in EHEA*. These display a tight theoretical and conceptual construction with LOs applied from individual modules through to the programme level. This external alignment offers symbolic meaning to qualitative descriptions of the qualifications students have acquired. However, it is supposed to be not only symbolically but actually aligned, the guarantee being the professional contribution from academics supported by CA (note here the transformation of 'constructive' from noun to verb, and the effect on its meaning):

> The academic staff responsible for delivering the programme and its components should ensure consistency between the learning outcomes stated in the programme, the learning and teaching activities and the assessment procedures. This constructive alignment (Biggs, 2003) between learning outcomes, learning activities and assessment is an essential requirement for educational programmes. (European Commission 2015, 26)

The commission insists that LOs are applied to all programme components in order to maintain trust in ECTS (De Lel et al. 2018). However, looking for alignment between LOs at different levels, as between course modules, programmes, and national degree levels, is quite an abstract endeavour, for which evidence may be elusive. Even where

claimed, the implementation of LOs varies widely within nations, let alone across a continent (Gaebel and Zhang 2018). However, policy makers, institutional leadership and HE administrators still put faith in the European curriculum and in the qualifications framework described.

Despite the clear intention that LOs should lead to quality learning, implementation suggests that, when imposed top-down, they lend themselves more easily to audit purposes than reliable measures of achievement (Gallavara et al. 2008). Additionally, policy makers, employers and professional bodies see LOs as a way to embed their particularly cherished skills or competences into the curriculum at the European level.

The most recent Bologna implementation report celebrates the almost ubiquitous take up of LOs and the establishment of external Quality Assurance Agencies (QAAs) across Europe. While stating that there is 'a consensus that quality assurance is necessary to ensure accountability and support enhancement' (De Lel et al. 2018, 131), the report also notes that 'improvement-oriented models of external quality assurance are far less prevalent in the EHEA than supervisory models' (14).

Biggs seemed to be aware of this danger stating that CA 'properly implemented enhances teaching and learning quality, and thus, as a form of quality enhancement, subsumes forms of quality assurance that can often be counter-productive' (Biggs 2014, 5). He further insists that his version of CA 'is concerned only with improving teaching and learning' (Biggs n.d.), but that it has unfortunately been used 'across institutions to serve a managerial agenda' (Biggs n.d.).

The national context (UK and Sweden)

In Swedish HE, widely regarded as a success story of the Bologna Process, the transition to define modules in terms of LOs began in 2006 and took less than a year to complete. From 2007, the curricular system included LOs only at two levels – in the course modules and at the national level in the form of general descriptors for each degree (Lindberg-Sand 2012). It has been suggested that the speed of the transition led to policy changes superimposed onto the old systems and, without sufficient time to adapt content or assessment practices, the LOs produced largely represented the existing learning objectives, and were poorly aligned to the outcomes achieved (Lindberg-Sand 2012). As Adams points out, superficial alignment at policy level can lead to the 'sterile creation of LOs to fit existing unmodified modules' (2008).

In the UK, political disquiet with HE led to the 1997 *Dearing Report* and many reforms which pre-empted, and indeed inspired, elements of the Bologna Process (Gallavara et al. 2008). Dearing recommended qualification frameworks, a modular structure, LOs, external QAAs, and the immediate introduction of accredited training programmes for university lecturers.

It is important to note that the LOs of which Dearing and the QAA spoke, were not linked to CA, or indeed, *any* educational theory (Jackson 2002). While it was hoped or expected that introducing LOs would lead to better learning experiences, their explicit intention in this context was to provide a means of measurement. The literature describing the QAA implementation of LOs talks in terms of *product or results* of learning, and not *process*. In an audit conducted by the QAA (2007), *not one* of the 70 responding institutions linked regulatory LOs to student-centred learning.

The UK QAA recognized the lack of educational theory in their implementation of LOs as a weakness, and retrospectively, embedded CA into their documentation (Jackson 2002).

A vitiated theory: CA in educational practice

As early as 2002 the UK QAA, in appending CA to their outcomes-based framework, states that it produces a 'carefully and systematically *constructed* curriculum with the need to *align* delivery, support and evaluation mechanisms' (Jackson 2002, p. 143, emphasis added). This sentence is representative of how quickly constructivism disappeared from the theory as practised and leads to a sharpened focus on *LOs* and *alignment.* The appropriation and re-direction of the key elements of CA by policy makers diluted the prominence of the theory, and by reframing the terminology, reduced its capacity to enhance the curriculum.

Alignment: curricula overwhelmed with policy requirements

As can be seen from the preceding quote from the QAA, alignment fared little better than constructivism on the journey from theory to policy. The idea of learning being *delivered* is far removed from the student-centred approaches advocated by CA. Alignment in CA is intended to create a 'web of consistency' (Biggs 1999, ix) in which the required outcomes are reflected in the assessment and learning activities. This integrated approach can lead to learning for understanding rather than memorization, the consistent messaging of alignment cuts through the institutional focus on grades (Shepherd 2005) and challenges the superficial 'serial acquisition of LOs' (Trowler 2003, 132), common in audit driven settings.

However, as Jackson points out 'the rational way in which policy view the world often has little time for educational theory' (2002, 142). As European, national, professional, and institutional bureaucracy acquired the language of alignment, a vast array of outcomes have evolved which require complex mapping to ensure that each one can be ticked off during a period of study.

An example of alignment used as a vehicle for policy is the UK's *National Subject Benchmark Statements,* introduced in the UK in 1999 as a device to regulate academic standards across the sector. These weighty documents are at once incredibly detailed, and sufficiently vague, that almost any module descriptors already in place, can be aligned. While recognizing that 'learning is not a precise science and that there is an important element of professional judgement involved' (149), individual benchmarking statements contain up to 50 *skills outcomes* to be assessed against three levels of explicit performance criteria. Thus, programmes are sliced into 150 pieces before any content is considered. This is in addition to any institutional curriculum design requirements, in one (not untypical) example there is a further grid of elements to be *aligned*, including: employability skills, soft skills, digital literacy skills, internationalization, resilience and inclusion; amounting to a further 91 elements of fragmentation. To require alignment with a tenuously related list of outcomes is a departure from the original theory, and one which undoubtedly dilutes the integrity of the model.

In the UK, the resulting process for programme and module validation has become an enormous administrative task, with hundreds of items to be mapped onto programmes, and modules. It is understandable that a busy academic might view this as an instrumentalist tick-box exercise designed to fulfil many competing demands; few of them educational in nature. Little wonder then, that many academics complete LOs in 'bad faith' (Furedi 2012), never intending that they represent what is to be taught, or how. Specifying LOs 'for the sake of the paperwork', while keeping them and 'other syllabus details as vague as possible [are] common' responses to CA in the validation process (Trowler 1998, 104). While both OBE and CA are based on starting with a learning design and then thinking about content, in most cases, the content already exists, and therefore a busy academic, with no imperative to change their teaching, is likely to stretch and contort it to meet the QA requirements.

LOs: tension between internal and external quality demands

For Biggs, the curriculum is driven by student's perception of the assessment: 'students learn what they think they will be tested on' (1999, 141). Therefore, the only way to ensure that students learn what academics intend they should learn, is by making it part of the assessment (alignment). This creates, what can be a surprisingly troubling question: what do you want students to learn as a result of your teaching? This is particularly so when curricula is described in terms of content. If the course content is *Hamlet* for instance, but what is actually being *taught* is literary criticism, the expectations of students are implicit, and often so nuanced that attempting to articulate them as LOs can be unsettling. Yet, answering the question of what students should be able to demonstrate at the end of a learning experience can be revelatory for educators, sometimes leading to the very student-centred teaching practices that CA is designed to encourage.

There is a significant difference between LOs used for enhancement, qualitatively or process oriented, and those product oriented used for audit. Others have noted the same phenomena; Franssen and Friberg express it as 'epistemic drift' (2015, 154) with a shift in focus from 'students to results of the local faculties, institutions or organisations' (2015, 154); while, Havnes and Prøitz (2016) frame it as internally or externally focused, with a further dimension of open-ended with limited measurability and full-ended and measurable.

As part of the QAA agenda, LOs are required to be presented such that they can be readily checked-off as complete; that is to say, *full-ended and measurable,* which can limit their utility and lead to the production of 'approved' verbs and formulations. Of the 249 million results returned by Google for the search 'how to write LOs', the first two pages came up with things such as; 'creating measurable LOs' and 'creating easily measurable LOs'. Among the results were items from Advance HE (the awarding body for professional accreditation in UKHE) who note that although, 'many academics have serious misgivings about the outcomes-based approach […] This paper simply aims to give some advice on how to do this as painlessly as possible' ('www.advance-he.ac.uk' n.d.); and, a university stressing that LOs describe only observable (assessable) behaviours and actions.

None of the results returned in the first few pages of the search mentioned the process or enhancement implications of LOs, the focus was entirely on product, to satisfy regulatory requirements. Many provided *copy and paste* examples which obviate the need for

academics to reflect on their teaching entirely. The LOs of theory and regulation share only the same spelling.

Highlighting the misalignment between policy and practice, Nasrallah found that a 'more traditional approach still dominated regardless of what was stated in the course syllabi' (2014, 268). Another study established that, across a range of institutions, 60% of LOs 'fail to meet a level of accepted best practice' (Schoepp 2019, 624), suggesting the cause was a combination of resistance and confusion amongst academics. The study's 'bleak findings' raised a number of concerns regarding the validity and reliability of proxies used for accountability and concluded that policy-imposed LOs 'failed to provide any evidence that good teaching is occurring' (625).

Hussey and Smith are persuasive in arguing that LOs used for non-academic accountability purposes are questionable as, the 'alleged explicit clarity, precision and objectivity […] are largely spurious' (2002, 232), and that their function in this context could be equally well-served by a list of course content. This, they suggest, is because the assessment of LOs requires a *judgement* to be made about their achievement which only academics are in a position to make. They are less convincing when they suggest that outside a particular learning event, LOs are less relevant. Trigwell and Prosser contend that holistically aligned LOs question the assumed knowledge-base and can lead to curricula that 'transcend the content' (2014, 150).

Constructivism: disappears from the theory as practiced

A multitude of detailed constructivist theories exist; however, the association in CA remains high-level and nonspecific, largely stressing the students' role in actively constructing their own understanding. While Biggs is initially explicit in his book that CA is based on 'the twin principles of constructivism in learning and alignment in teaching' (1999, 11), he seems to contribute to the enervation of constructivism within CA. Mentioned fourteen times in the first edition, constructivism appears just seven times in the text of the (much larger) fourth edition (Biggs and Tang 2011). Possibly, this is an attempt to make the theory more accessible, with the authors instead focusing on *learning activities*. The implication being that the *constructive* part of the model is a component of *curriculum construction* rather than an underlying theory of learning. In the 2011 edition, Biggs and Tang even seem to be distancing themselves from the theory. They state, for example, that whilst the theories of teaching they utilize are based on constructivism and phenomenology, which one you use 'may not matter too much, as long as your theory is consistent' (Biggs and Tang 2011, 22). However, by failing to maintain an emphasis on the constructivist origins, or explain its omission, a void of understanding is left to be filled at the whim of practitioners and policymakers.

If the constructive element is read as 'constructing' (structurally) or 'constructive' (as in positive and valuable) and not 'constructivism', one of the central pillars of the theory has been removed. Practitioners are then free to claim constructive alignment for a course containing ten lectures and an exam; so long as the LOs are stated, and the assessment aligned with the LOs. While constructivist approaches would not prohibit lectures, the student-centredness of an active learning approach would probably make that difficult to justify. 'Lecturing is logistically convenient [however] the learning that takes place in lecturing is demonstrably worse than in other teaching situations' (Biggs and Tang 2011, 157).

Thus, constructivism has essentially disappeared from CA as it was conceptualized by Biggs. While *active learning* features in policy documents and academic development programmes, the rationale lacks the coherence of an overarching framework and contributes to a reductive approach to curriculum design. From a policy perspective, the various elements of alignment, outcomes and active learning could now be viewed as a kind of pick-n-mix, in which the combination and composition are unimportant; whereas, the original aim of CA was to provide an understanding of the phenomenon of learning as a process.

Reaction and resistance: contested understandings

The contested articulation of curriculum outcomes did not begin at the inception of CA, but rather echoes earlier arguments relating to learning objectives. Caught within the shifting debates about the applied meaning of CA has been the academic. The positioning of academics, whose role as the arbiter of student learning has been challenged in a period of increased monitoring and control in the name of accountability, helps to frame some of the more polemic reactions to CA and LOs (Fransson and Friberg 2015).

Deprofessionalisation

The neo-liberal influenced marketization of HE in the 1990s 'is closely connected to the rise of the culture of quality assurance, the corollary of accountability' (Biesta 2016, 54). While this was taking place, Trowler (2003) talks of a *discourse of derision* in which academics were attacked for left-wing bias as a way of limiting a progressive agenda and imposing accountability controls. It is interesting to see that the tactic is still in use, with regular media articles accusing academics of political indoctrination of students (See Morgan 2019). The inevitable consequence of generating mistrust in academics, is a demand for *transparency* and the imposition of a growing list of external *objective* auditing measures. A further consequence is reductive deprofessionalization, where 'actors become just one link in a long chain, and they see and have the ability to control only the next link; they can neither see nor control the ultimate and overall aims' (Biesta 2016, 66). While it is difficult to think in terms of well-paid, middle-class academics as *the oppressed*, Freire's description does resonate: 'If for a person to be in the world of work is to be totally dependent, insecure and permanently threatened – if their work does not belong to them – the person cannot be fulfilled [and work] becomes an effective means of dehumanization' (2017, 118). Kolsaker (2008) argues that these fears are overstated and that academics are more accepting of their lot; tacit approval evidenced by a lack of resistance. For Furedi however, the utilisation of LOs in the audit culture, which was expected to make HE transparent and accountable, paradoxically, fosters 'a climate of non-responsibility' (2012).

The increased emphasis on alignment for audit purposes may have led to a reduced sense of individual responsibility amongst academics. The widespread use of *copy and paste* LOs would certainly suggest that as long as the paperwork is complete, the academics have fulfilled their institutional obligation. As Barnett reflects, in 'higher education, whatever its validity in other contexts, such a single-minded check-list approach to safe-guarding quality is misguided, ineffective and pernicious' (1992, 119).

Academic development

Partly as a consequence of the Bologna Process (and post the Dearing Report in the UK) the early 2000s saw a dramatic rise in the relatively new and often contested role of the educational or academic developer. Their function is a microcosm of the tensions that exist in HE between theory, policy, and practice.

Academic development is ostensibly an academic discipline with the scholarship of learning and teaching in HE as its subject. While many teachers find the pedagogic courses offered by academic developers to be useful and worthwhile (Roxå and Mårtensson 2017), there are those who view them as either a professional service or, an irrelevance. Their difficulties stem from the relative nascence of the discipline, along with the mandatory nature of many courses which can lead to resentment among academics. Positioned between management and academics they are often required to implement policy developments in areas such as e-learning, internationalization, QA and accountability which 'drip through the institution' (96). Academic developers have been criticized as agents of suppression for neo-liberal ideology, producing homogenized academics who are denied their academic freedom. CA in this context becomes a 'design template for university courses as cogs in an aligned educational system leaving no space of action for the disciplinary experts' (98). Given the time that is available to assist those engaging, often for the first time, with a variety of complex concepts, it is perhaps not surprising that, on occasion, rather than critiqued to explore the implications of constructivism for academic practice, the theory becomes used instrumentally. In other words, once the LOs are written, the learning and assessment strategy simply fall out of these.

Academic developers are themselves acutely aware of their parlous position on the compliance-resistance continuum. Handal et al (2014) discuss academic developer's agency through the lens' of professional accountability and professional responsibility when put in the position of implementing policies with which they might 'partly or even totally disagree' (12). The pragmatic response, as in many situations, tends to be to implement the policy in a 'somewhat revised form' (16).

Despite the best efforts of academic developers, it would appear that factors such as beliefs about teaching, disciplinary practice and local academic culture can undermine the pedagogic knowledge imparted in teacher training courses. There is a growing body of evidence (e.g. Hattie 2015) which suggests that attitudes to teaching (broadly described as learner- or teacher-centred) significantly impact on the way that OBE is practiced. Subject to academics learner/teacher-centred orientation, the 'articulation of a programme learning outcome […] may be experienced in qualitatively different ways' (Trigwell and Prosser 2014, 151), meaning that aligned and correctly formulated LOs can still result in transmissive teacher-centred lectures. Thus, pedagogical understanding (of CA for instance) is necessary, but not sufficient, to ensure that student-centred approaches are enacted in practice (Barman, Bolander-Laksov, and Silén 2014); and, further demonstrate that OBE imposed from above will not ensure a qualitative enhancement of learning experiences.

Academic developers could benefit from surfacing the contradictions in the original theory of CA as a pedagogical tool, and CA as an administrative policy practice, making academics accountable for the delivery of actual LOs in the HE curriculum.

Conflating theory with practice

While most serious criticism of OBE occurs in peer-reviewed journal articles, there are regular editorials and opinion pieces appearing which conflate evolved academic and institutional practice with the original theories.

A common complaint of CA is that the precision of intended LOs proscribes creativity and unanticipated LOs; yet Biggs is clear on this issue stating that, to 'make the objectives upfront and salient is not to exclude other desirable but unforeseen or unforeseeable outcomes […] higher level activities are open-ended […] particular outcomes are here unspecified, it is only the process that is specified' (Biggs 1999, 43).

Nelson (2018) makes the point that all HE institutions claim to encourage creativity, while simultaneously generating a 'grid of expectations' which discourage it. However, contrary to Biggs' explicit guidance, Nelson suggests that this is the result of CA, where 'learning from the outset belongs to the discourse of assessment' and that the 'strict' alignment of learning activities with LOs is 'killing creativity'. For Nelson, CA produces a 'straitjacket' concerned only with demonstrating evidence, and that creativity would have to be 'wangled' into any LOs.

In a more polemic article, Furedi also conflates the theory and practice: 'Those who advocate LOs do so expressly with the aim of abolishing [open-ended] experiences' (2012).

Both Nelson and Furedi appear to yearn for the days where courses were described in terms of learning objectives, aims, or possibly just a list of content, claiming that this gave academics more freedom to be creative; yet, as Barnett (himself no advocate of LOs) says: 'Whether we realise it or not, whether we wish to recognise it or not, as educators we must have aims. All educators, if they are serious about the task, must operate with the intention of achieving some kind of outcome' (1992, p. 33).

Critical appraisal of learning objectives and outcomes

Ironically, many of the criticisms levelled at student-centred CA and LOs by those nostalgic for teacher-centred learning objectives, are identical to those directed at educational objectives by Eliot Eisner in his 1967 paper *Educational Objectives: Help or Hindrance*. He says that through the work of Bobbitt, Tyler and Bloom, that educational objectives stated in behavioural terms had 'been elevated – or lowered – to almost slogan status in curriculum circles. Yet, despite these efforts, teachers seem not to take educational objectives seriously – at least when prescribed from above' (Eisner 1983, 553). He asserts that if educational objectives were useful, teachers would use them, and that as they do not 'there might be something wrong with the theory [and that], the dynamic and complex process of instruction yields outcomes far too numerous to be specified in behavioural and content terms in advance' (554). He invokes Dewey's distinction between the application of a standard and the making of a critical judgement, before going on to say that 'what is most educationally valuable […] is capable of being described only in metaphoric or poetic terms' (557). In a similar vein, Walker says that: 'Beliefs about what is educationally desirable, that is, beliefs about the good and the beautiful in education, I call aims' (1971, 56). The implication being that the success, or otherwise, of a good education is something that can only be judged, and not measured.

Speaking to learning objectives as applied to the humanities, Stenhouse suggested that, in the US and Europe, the objectives model is 'often advanced naively and yet confidently, even assertively' (1970, 74). He goes on to say that the study of works of art (such as *Hamlet)* cannot be described in behavioural terms. The theme of reductionism is one that appears regularly in the discourse of CA. The original theory was relatively open, but inevitably narrowed as Biggs sought to provide detailed guidance for its possible applications (his book growing from 250 pages in the first edition to 389 pages in the fourth). Academic developers helpfully produced lists of *acceptable* verbs to be used in LOs and more worryingly *prohibited* verbs (see Furedi 2012). This not only fuelled reductionism but further narrowed the focus of LOs to observable (assessable) behaviours. The possibility of *open-ended* LOs suggested in Biggs' original theory has largely evaporated. This relatively subtle shift in emphasis has led to the much bigger imbalance in alignment; from everything being aligned to LOs, to a perception that everything is aligned with the assessment (e.g. Jervis and Jervis 2005).

Criticism of constructivism

The criticism by those from the humanities; that fixed outcomes cannot represent the unanticipated consequences of teaching; is echoed by those in the natural sciences. However, some in the scientific community appear to be more vehement in their opposition to both CA and, constructivism in general. Pointing out that constructivism is a broad church of individual approaches to learning theory, Jervis and Jervis go on to say that this ambiguity is incompatible with the precision of natural sciences. They highlight some confusion as to whether CA uses constructivism as a theory of knowing or a theory of learning, they argue that 'regardless of whether a realist or constructivist theory of knowledge informs what is learnt, learning happens by the same process', and also, somewhat incongruously, doubt that it is 'possible to have a constructivist pedagogy allied to a realist epistemology' (2005, 5). They suggest that constructivism is in some way responsible for limiting students' opportunities to engage with practical experiments, which would appear to be the opposite of the main thrust of constructivism: that learning is an *active* and constructive process. They conflate theory with institutional practice, accusing constructivism of everything from a 'preoccupation with assessment and LOs' (4) to a prohibition on lecturing and ultimately, the production of 'less objective medical practitioners' (6).

There are two recurrent themes in literature critical of CA which emanate, particularly, from the science teaching community. One is the student-centeredness of the approach which is (mistakenly we believe) taken to mean that any interpretation of learning *constructed* by the student is acceptable, irrespective of any objective reality. While CAs constructivism is implicitly monist, it does not inherently deny an objective reality, it merely suggests that objective reality is mediated through individually constructed understanding (e.g. Steffe and Gale 1995). A student would have to present a very convincing argument to persuade even the most ardent constructivist, that two plus two was equal to seven. The move from learning objectives to LOs recognized the role of the student in the educational process. 'The point is that, in teaching, educators cannot achieve their aims by themselves, the outcome is realized through some other person, the pupil or student. Given this indirectness, educators have to have some notion of what they are hoping to see in their students' (Barnett 1992, 34).

The second noticeable theme is that, given the 'broad church' (Jervis and Jervis 2005, 1) of constructivist approaches available, some researchers choose one of the more niche versions to examine, and then claim it does not work in their discipline or context. For example, in a widely referenced 2006 paper (over 7000 citations according to Google Scholar), Kirschner *et al* analyse the *failure* of: 'Constructivist, Discovery, Problem-based, Experiential, and Inquiry-Based Teaching' (2006). Many of the claims made by the authors relate to Discovery Learning *with minimal instruction*; an approach cautioned *against* by Jerome Bruner when he introduced Discovery Learning (1961). They claim that 'students learn so little from a constructivist approach, most teachers […] end up giving considerable guidance' (Kirschner, Sweller, and Clark 2006, 79). In a 2007 rebuttal Hmelo-Silver *et al* highlight some of the many flaws and inaccuracies in the original Kirschner *et al* article, including that they 'lump together several distinct pedagogical approaches – constructivist, discovery, problem-based, experiential and inquiry-based – under the category of minimally guided instruction' (2007, 99), and overlook many, more favourable, comparative studies. Interestingly, when Kirschner *et al* describe some of the features of *direct instruction* (their preferred teaching approach) such as; 'providing novices in an area with extensive guidance [which] can be relaxed only with increased expertise' (2006, 80) one could be forgiven for noting a resemblance to popular interpretations of constructivist theories. As Vygotsky says: 'With assistance, every child can do more than he can by himself' (2012, 198). That Kirschner *et al* also claim 'scaffolding' is used to 'rescue' failed constructivist teaching interventions' (2006, 79) must be a little galling to Bruner enthusiasts, as he coined the term *scaffolding* in relation to social-constructivism in the 1970s (Wood, Bruner, and Ross 1976).

This is important because the partial and misrepresentative study of Kirschner *et al* still has currency. In 2019, it was cited 590 times, while during the same period, the rebuttal by Hmelo-Silver *et al* just once. Even Kirschner and colleague's later (more nuanced) engagement with the topic has failed to come close to the enduring impact of their original article. This contributes to a widely held view within teaching that constructivist pedagogies are not effective for teaching the natural sciences. The irony is of course, that some of the most successful constructivist pedagogies, such as Peer Instruction (Crouch and Mazur 2001), emanate from large-class teaching of natural sciences.

It is also worth noting that:

> A common misunderstanding regarding constructivism is that instructors should never tell students anything directly but, instead, should always allow them to construct knowledge for themselves. This is actually confusing a theory of pedagogy (teaching) with a theory of knowing […] Thus, even listening to a lecture involves active attempts to construct new knowledge. (David 2015)

The criticism of CA is predominantly defined in terms of constructivism or LOs. Constructivism is a cornucopia of theories and criticism tends to focus on relatively narrow interpretations. The central tenet, that learning is an *active* and *constructive* process, remains largely unchallenged.

LO's problems are more situational than interpretive. Legitimate concerns are raised in relation to the encouragement of utilitarian and behaviourist approaches, and that the transparency afforded could lead students to fixate on assessment. However, the majority

of criticism stems from the conflation of their use as a means of enhancement, and a means of control.

Reclaiming CA

In the course of this critical reflection, a number of tensions and themes have surfaced which go some way to explain why the potential impact of OBE has been compromised in practice. Given the structural complexity and constraints within which HE operates, it would be wrong to suggest that there are simple solutions to the central problem of educational theory misguidedly being used by policymakers in QA processes. What constitutes *quality education* is a question infused throughout this discussion; its contested nature underscoring the assertion that quality is something that can only be judged, and not measured.

Conceived as a tool for reflection to aid the creation of optimal learning situations; CA encapsulates, in an accessible form, many commonly agreed upon aspects of what constitutes *good practice* for those teaching in HE. This paper should not be read as an unqualified defence of CA and recognizes its limitations. We have argued that when used holistically it entails reflecting on the deeper purpose of teaching, and thus, in its original conception, has value for academics. CA is anchored in the *practice* of teaching and learning. The pretence that CA may also be applied at administrative levels, thereby validating aspects of quality teaching, makes the work of academics appear invisible and controllable.

The detrimental impact of this is twofold, firstly, it creates an illusion of QA at policy level which is inconsistent with practice (Schoepp 2019); by appropriating CA, documents can be produced which check-off the LOs and student-centredness of OBE, and yet, teaching remain free from the active learning approaches they are intended to evidence (e.g. Trigwell and Prosser 2014). Secondly, by framing LOs as tools of accountability and control in the validation process, ownership is transferred from academics to administrators, encouraging the resistance and rejection that can be seen in the literature (e.g. Nelson 2018). This second point relates to the Handal *et al* (2014) discussion of academic accountability versus responsibility. When senior academics boast of LOs: 'I just make them up and ignore them' (Furedi 2012), it undermines what could be a valuable resource for their colleagues, and abdicates responsibility by failing to confront policy implementations which they believe to be pernicious.

From an academic perspective, reclaiming CA would call for a challenge to check-box approaches to QA and the normalization of LOs used for the purposes of control and audit. In order to revive the credibility of OBE policymakers need to recognize the futility of attempting to micro-manage what happens in classrooms and restore some of the trust in academics that has been eroded in recent decades.

Conclusion

Those who speak of education as a journey undertaken by student and teacher together, to an unknown, unknowable destination would, we suspect, struggle with a compulsory module comprised of six-hundred mixed ability undergraduate students.

Written as a response to the realities of massification and diversification in contemporary higher education (which, coupled with declining per capita budgets, typically results in

larger class sizes and less contact time), CA offered an opportunity for theory to underpin practice and for academics to rethink how they conceive of their teaching.

Between the idea
And the reality
Between the motion
And the act
Falls the Shadow (The Hollow Men, T S Eliot)

There can be no doubt that one intention of introducing CA and LOs into policy was to improve learning and teaching. However, between policy and practice, falls the shadow. In adopting the language of educational theory for the purposes of audit, policy makers and bureaucrats have created a façade of academic legitimacy. The amalgamation of educational theory with bureaucratic accountability has, in many instances, transformed educational tools into administrative hurdles.

Much of the ire directed towards CA is a result of this misappropriation. Reclaiming the meaning of CA is crucial if HE is serious about student-centred learning. Alignment should be used to guide students towards effective learning not to steer academics; and, constructivism puts the student at the heart of learning, without it, learning design can have the structure of CA and yet lack its substance.

Learning theories are qualitative tools that require thoughtful application. Reclaiming CA and LOs from the miasmic dominion of accountability metrics and perfunctory journalism are essential in avoiding the frustration of their educational purpose.

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Paper II

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The use of lectures: effective pedagogy or seeds scattered on the wind?

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Abstract
This case study of large-class teaching at a UK university focuses on the place of large-scale lectures in academics' approaches to teaching, their *use* by students in their studies, and their relationship to institutional quality assurance policies. The case is a second-year module comprised of 180 students, and it includes two-hour lectures as the primary mode of teaching. The data is drawn from a range of sources including observations, interviews, focus groups, institutional documentation, and a student survey. Observations revealed largely transmissive lectures with little student interaction. The analytic framework of constructive alignment and outcome-based education is used to examine the promoted educational values and the practice experienced by students. The results are further explored in relation to two texts celebrating 50 years since publication: Donald Bligh's *What's the Use of Lectures* and Benson Snyder's *The Hidden Curriculum*, Both highlight the dissonance of espoused approaches to teaching, and the realities of large-class environments. While the institutional literature foregrounds student-centred, 'active learning' approaches, the teacher-centred practice observed would have been very familiar to Bligh and Snyder; the principles of constructive alignment were visible only at the policy level. The implicit reward mechanisms of the hidden curriculum ensure that the majority of students succeed and are satisfied with the educational offering. The students who attended the lectures appeared to enjoy them and indicated that the primary benefits are the structure offered by live lectures and the support of the peer networks which develop as a result of attendance.

Keywords Lectures · Large class teaching · Hidden curriculum · Constructive alignment · Constructivism · Outcome-based education

Introduction

Two seminal books in higher education (HE) celebrated their half-century in 2021: Donald Bligh's *What's the Use of Lectures* and Benson Snyder's *The Hidden Curriculum.* These two books have made a substantial contribution to the development of educational discourse and theory since their publication. While Bligh remains an advocate of the

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(proportionate) use of the lecture method, he is scathing of the casual overreliance on transmissive lecture styles often observed, arguing for smaller class sizes, variety, and interaction in teaching sessions. Snyder posits that there is a dissonance between the formal curriculum described in terms of a scholarly pursuit of knowledge and an informal 'hidden' curriculum, which centres around the implicit expectations of staff and students. He claims the hidden curriculum can foster instrumental behaviours in students: 'The classic example is the professor who says "Be creative" and rewards rote memory' (Snyder, 1971, p. 155). It can, he claims, result in short-term, assessment-driven learning, which has been shown to impair students' (long-term) performance in real-world settings.

Bligh retains a focus on what happens in the classroom, whereas Snyder takes a more holistic view of institutional structures which influence the beliefs and behaviour of academics and students. While Bligh and Snyder's frames of reference differ, the centrality of the student in learning and teaching is a theme common to both. Traces of their influence can be found in the policies of present-day HE which inform institutional, national, and international, quality assurance (QA) processes. A more contemporary influence of QA processes is outcome-based education (OBE) and particularly constructive alignment (CA). Loughlin et al. (2021) hold that CA operates at two levels within HE, firstly, internally as a qualitative tool to enhance the coherence of the educational offering and support the process of student learning; and secondly, externally, as a product-oriented means of audit and control of curricula by policymakers. They argue that CA used in QA processes can create an illusory appearance of student-centred approaches to learning and teaching, often misrepresenting the reality of practice. This paper is an empirical study that relates teaching practice to institutional rhetoric.

Transmissive lectures, in which students primarily listen to the lecturer and take notes, remain commonplace in HE (e.g. Gynnild et al., 2021). This case-study of large-class teaching at a UK university provides an opportunity to examine contemporary approaches to teaching in relation to the ideas discussed in the historical texts. The research looks at the totality of the module, with an emphasis on the place of non-mandatory large-scale lectures within it. The object was to understand the perceptions and expectations of the students who chose to attend them and how they *use* lectures in their learning. The analysis and discussion integrate findings from the case study with the historical texts and more contemporary theoretical perspectives.

Three core elements are considered in this paper: the study data, CA as curriculum theory, and the historical texts. These are discussed at two levels, firstly the institutional or structural level and secondly at the practice level (see Table 1 for a visual representation). It is the relationship between these elements and levels that form the article's underlying structure. That is, how the institutional documentation is informed by the QA requirements; if/how that translates into classroom practice; and to what extent the Bligh and Snyder texts retain explanatory power of the (contemporary) observed phenomena.

Table 1 The article structure of three elements over two levels

	Study data	Curriculum theory	Historical texts
Structural/institutional	Institutional documentation	CA in the QA process (product-oriented)	Snyder: *The Hidden Curriculum*
Practice	Lecture: Observations/interviews and focus groups	CA as enacted in the module (process-oriented)	Bligh: *What's the use of Lectures?*

The theoretical perspectives below are followed by an overview of the case and the study methodology. The findings are then explored in a thematic analysis of the data, and the discussion in relation to the texts mentioned.

Theoretical perspectives

This section locates large-class transmissive lectures within selected educational literature. There is a great deal of overlap between the historical and more contemporary texts outlined below, all of them characterising aspects of students' study habits, at least partly, as a reaction to lecturers' approaches to teaching. They are also—implicitly or explicitly constructivist—describing student's learning as individual, prior knowledge dependent; and learning itself as an active, constructive, and goal-oriented process.

At the structural level then, the OBE movement is significant for this study because of its integration into UK and European QA frameworks, most notably through CA. John Biggs developed CA in the 1990s and fully articulated it in his 1999 book *Teaching for quality learning at university*: 'A good teaching system aligns teaching method and assessment to the learning activities stated in the objectives, so that all aspects of the system are in accord in supporting appropriate student learning. This system is called constructive alignment, based as it is on the twin principles of constructivism in learning and alignment in teaching' (Biggs, 1999, p. 11).

Biggs and Bligh do not imply lectures are never appropriate, rather that, an over-reliance on transmissive lectures is less effective than many alternative approaches. CA is archetypically student-centred in its approach, stressing the importance of carefully designed learning activities. 'Lecturing is logistically convenient [however] the learning that takes place in lecturing is demonstrably worse than in other teaching situations' (Biggs & Tang, 2011, p. 157). Biggs is practice-focused and intended CA as an educational tool to enhance learning through student-centred, activity-based approaches to learning and teaching. He is critical of its use by policymakers as a means of audit and control through QA processes. It is this dual perspective of CA that is considered in this study.

At a practice level, Ausubel contends that meaningful learning *is* possible from expository verbal instruction, but that misapplication in practice led to educational theorists dismissing it 'disdainfully as an archaic remnant of discredited educational tradition' (Ausubel, 2000, p. 6). There is little other published empirical research in defence of traditional lectures. As Bligh points out, that is likely to be because most studies are using lectures as the benchmark against which favoured alternative formats are measured. Even where lectures perform well in comparative studies, it is more likely to be perceived as a shortcoming of the alternative than the success of the lecture. In a paper that draws on Goffman's *Forms of Talk*, Fulford and Mahon argue a *philosophical* defence of lectures, which, while persuasive, is metaphoric and aspirational. One could imagine a hard-pressed academic facing two-hundred students on a rainy Thursday morning struggling with the concept that the 'lecture is the site for, and the possibility of, the passionate utterance' (Fulford & Mahon, 2020, p. 373).

There is no commonly accepted definition of a lecture, 'few rules', and 'no more agreement about what is a good lecture than there is about good music' (Bligh, 1972, p. 9). *What's the Use of lectures?* has a practice focus as it was originally penned with the aim of helping new lecturers (citations in this article are from the 3rd edition published in 1972 and the American edition of 2000). The research evidence presented in the first few chapters is damning; lectures performed poorly (in terms of students' assessment scores) in

almost every metric apart from knowledge transmission, where they were only *as* effective as other methods. Bligh's findings are that lectures are 'relatively ineffective' for inspiring interest in the topic, promoting thought, changing attitudes, or developing behavioural skills.

The psychology sections deal with issues of motivation, attention spans, and memory. He helped popularise the idea of the 20-minute attention span for students in lectures. Interestingly (in a world currently forced into online teaching), when mediated via TV screens, attention spans were 'much worse' than live lectures (Bligh, 2000, p. 53). While concluding that lectures alone are 'rarely adequate' (ibid, p. 251), he remains a proponent of the lecture method and two-thirds of the book is devoted to helping lecturers improve the quality of their lectures. The final sections of the book promote active and discursive approaches to classroom teaching.

The Hidden Curriculum was based on research carried out by Snyder at MIT during the 1960s. He sought to articulate, what he sensed was a disconnect, between the espoused approaches to university education and the reality that he observed. The scholarly pursuit of knowledge often overwhelmed with an overloaded curriculum containing too much assessment, commonly resulting in instrumental approaches to learning. He contributes to the discourse of the relationship between teachers' approaches to teaching and students' response to it. The themes explored resonate strongly with this case study, especially as Snyder's research involved academically able students, and addressed large class sizes.

Drawing on some similar themes to Snyder, Trowler's teaching and learning regimes (TLRs) provide a framework for understanding the relationship between teaching cultures and student learning. TLRs help frame the relationships between the institution, teachers, and students described in this study. Trowler describes how power relations, implicit theories of learning and teaching, conventions, tacit assumptions, and discursive repertoires (amongst other things) influence approaches to teaching, which can, in turn, influence students' approaches to learning (Trowler, 2019). That is, teacher-centred/transmissive approaches are associated with surface approaches to learning by students, whereas student-centred teaching is associated with deep approaches (Marton & Säljö, 1976; Trigwell & Prosser, 2020). Snyder uses the terms *instrumental* and *expressive* to describe the same phenomena. Surface and deep are broad-brush descriptions of students' approaches to learning, linked to extrinsic motivation (e.g., exam-focused) or intrinsic motivation (interested in the subject for its own sake). It is stressed in the literature that these attributes are context-dependent and not fixed dispositions of individual students.

The above theoretical perspectives form part of a complex and multi-faceted understanding of the relationships between teaching and learning; they are not explored in detail in this paper but provided as context for the analysis and discussion which follow.

The case

The case is a semester-long module (course) equivalent to 7.5 ECTS credits which took place at a pre-1992, research-intensive, Higher Education Institution (HEI) in England between October 2018 and February 2019. It is a compulsory module for second-year students on a programme in the faculty of health sciences and builds on a similarly themed first-year module. A high tariff (grade) is required for entry onto the (prestigious) programme, and places are limited to 180. The module is split into two self-contained parts: a research methods section which comprises five two-hour seminars and culminating in

a piece of groupwork which accounts for 25% of the final grade. The primary focus of this study is the other part, which consists of a series of eleven two-hour lectures, these relate to an exam that accounts for 75% of the final grade. The exam is made up of 30 min of multiple-choice questions and a one-hour essay question; the exam marks are weighted 50/50 for each element.

For context, the University documentation produced is clear about what type of teaching students should expect: for instance, the University's corporate strategy talks of 'innovative teaching' and the education strategy espouses 'active learning'. The institution commits to 'teaching practices which are strongly informed by up-to-date educational research. [We] explicitly recognise and reward excellent teaching'. The module descriptor reflects the Quality Assurance Agency (QAA) requirements founded on CA and LOs.

The collaborative 'research methods' element and associated coursework account for two of the three LOs, all four of the 'attributes developed', and three of the four 'teaching methods' described in the module documentation. The lecture series and exam account for only two of the four 'attributes' and a single learning outcome (to 'understand and critically reflect' on the topic), which 'gives students the basic knowledge on' the topic area.

The module leader is a senior academic who had been leading this module for eighteen months (and takes one lecture); the module itself was validated by a predecessor several years previously. The module leader and four lecturers share the teaching; the lecturer interviewed taught five of the eleven lectures. She had been a lecturer for three years and had recently completed the institution's teacher training programme.

The lectures were conducted in a 200-seat raked (tiered) fixed-seat lecture theatre and took place between 11am and 1 pm every Thursday during one semester. At the start of the semester, there were 179 students registered on the module, 169 completed it.

The research questions reflect the tensions that can be seen developing between the formal curriculum represented in the institutional literature and the informal curriculum which confronts the challenges of large-class teaching.

Research questions

How do students make use of the lecture?
How do students and staff understand the role of the lecture?
How does the lecture series relate to the 'formal curriculum' described in the institutional documentation?

Methodology

The rationale for choosing this particular module were its credentials as a *common case* (Yin, 2009). The course handbook describes the lecture element as: 'standard lecture format with interactive elements'; the cohort size falls within the mid-range at the University and the 200-seat lecture hall is the most common size of fixed seat venues (the mean capacity across all raked-seat lecture theatres at the University is 154). The discipline is obviously the most contentious point for claiming a 'common case'; however, observations across a range of distinct disciplines, in the specific context of a large-scale lecture, suggest that disciplines have more in common than separates them. Comparisons of 'effective teaching do not vary markedly across the academic disciplines'

(Dolnicar, 2005, p. 4). The major variables which affect student engagement with the lecture, such as personality, enthusiasm, and structure, operate independently of the discipline (e.g. Bligh, 2000).

The case study methodology was chosen as suitable to explore a complex social practice enclosed in a module and framed by formal curricular structures, and draws upon data from a number of sources:

- Observations: Seven of the eleven lectures were observed (including all five instructors who taught the module), and lecture recordings of the remaining four were viewed.
- Staff interviews and focus groups: The data collected from the two staff interviews (the module leader and primary lecturer) and two student focus groups were recorded and transcribed verbatim, they covered a lot of ground; in this analysis however, the focus on large-scale lectures has been retained.
- Institutional documentation: Institutional policy, syllabus, and module guides were gathered and analysed.
- Student survey: All students enrolled in the module were invited to take part in an online survey relating to notetaking practices, engagement with lecture recordings, and attendance rates. The online survey was completed by 100 of the 169 students who completed the module. Students were incentivised to take part with 'lab tokens' which contribute to extra-curricular credits. The survey and VLE data will be explored more fully in a forthcoming article on attendance; in this paper, it is used only in relation to the statistical correlation with exam performance and self-reported attendance.

The first focus group (quotes labelled FG1) took place shortly after the module ended; it consisted of five students (two international). The topics covered ranged from reasons for attendance, note-taking behaviour, and their use of lecture recordings. The second focus group (labelled FG2) took place one year later and picked up on emergent themes from the first. It was conducted to explore what students valued about live lectures in more detail; it comprised of four different students from the same cohort (three international), who were now in their final semester of the final year. The cohort was predominantly female and included a large proportion of international students. The students who took part in the focus groups received gift vouchers to compensate them for their time.

Ethical approval for this research was obtained from the university where the study took place prior to the data collection. Informed consent was obtained from all participants.

Thematic analysis (Braun & Clarke, 2006), was used to identify patterns and themes across the data. After familiarisation with the data, the initial codes generated from the separate data sources included anonymity; assessment; motivation; expectations; self-consciousness; anxiety and enjoyment; and the status quo. The iterative process of thematic analysis, which combines the initial coding into emergent categories, resulted in the following themes:

- Filling the pail: content acquisition
- Isolated teachers and anonymous students
- Normalising uncertainty: peer networks
- Loose coupling: lectures like seeds scattered on the wind

These themes are reflected in the findings below, with accompanying textual analysis and supporting evidence.

Findings

This module has been running successfully for several years (the programme consistently ranking top 30 in the UK) and there is a pervading sense that the module leader perceives his role as largely bureaucratic. As the current caretaker of a successful module, he sees neither the scope nor the need to change the delivery of the module. The module evaluation comes in at 'around 4-ish [out of 5] depending on the cohort […] there is no area for concern regarding this'. He specifically does not see the scale of the lectures as problematic: 'whether I deliver this content to a hundred or a hundred and eighty is not a big difference'. He stressed the autonomy of both students and teaching staff in relation to the lectures. The issue of attendance is 'never discussed' at a programme or module level. Attendance is not monitored, and the students are free to attend lectures or not, 'as long as [they] do not complain about not knowing something that has [been covered in the lecture] it's absolutely up to them'. Attendance at the (non-compulsory) lectures ranged between 35% and 46% of the cohort, decreasing noticeably towards the end of the semester.

The following extract from the lecture observations helps to set the scene for the lecture series:

> The two-hour-long lectures took place between October and January, the temperature in the hall was often on the cool side, most people were wearing sweaters, and a few kept on their outdoor coats. The hall itself is windowless, with just ten seats either side of the aisle, and ten rows deep.
> On my third visit to the steeply tiered lecture hall for this series of lectures, I took my usual place, off to one side in the back row of the fixed, high-backed seats. The podium appears distant from here, and there is a large projected display on the wall behind it. The rows are narrow, and they have fold-out tables coming from the seat in front, rather like an aeroplane tray-table, just big enough to accommodate a laptop. A young woman came into the hall and sat a few seats away from me in the back row. Before the lecture commenced, she put her tray-table down, laid her head on it and went to sleep. She remained that way for the entire two hours. *Observation number 3*

From the observations carried out, all five lecturers presented a largely transmissive lecture with the occasional question posed to the students. These questions were regularly greeted by the majority of students staring at their shoes until the moment passed. All the lectures had a break near the halfway point for ten or fifteen minutes. The break was often preceded by a two-minute small-group discussion question; the results of these discussions were rarely followed-up with a plenary conversation. Although an uninvited question from students was not observed during the lecture itself, in the break and afterwards, the lecturer generally had a queue of students to speak to.

The module leader said that the lectures are positioned as an introduction to topics and there is no expectation that students will have done any pre-reading. Individual lectures are 'self-contained', and while there are links between 'certain' lectures, there is no 'narrative running through all lectures'. He continued: 'I expect a lecture mainly to introduce a topic to students, to get basic concepts set in students, but mainly to spark interest to do their own further reading and work in the other 85% […] of the time they should spend on the module'.

Each lecture was exclusively devoted to the week's topic, which related to a chapter in the course textbook. The textbook had 26 chapters (topic areas), 10 of which were covered in lectures, and the students were explicitly told that the exam questions were 'only' taken

from the topics 'covered' in the lectures. All five lecturers recorded their sessions and used lecture slides (which were made available a few days before each lecture). Most students had their laptops open with the lecture slides visible, and there were regular flurries of keyboard activity, although not the consistent typing throughout the lecture which would indicate very comprehensive notes.

Overall, the students stayed on task; there were occasions when Facebook would pop up on laptop screens or mobile phones would start appearing. From time-to-time, conversations would break out while the lecturer was still talking. However, the atmosphere tended to be respectful.

Self-reported attendance at lectures was not correlated to a statistically significant level with the exam scores. This is surprising given the emphasis placed by teaching staff on the direct relationship between the two. There was a modest significant positive correlation with lecture recording views ($r(167) = 0.072$, $p\text{-}value < 0.001$); this correlation applied almost equally to those students who indicated in the survey that they did not attend live lectures regularly. It seems unlikely that students attending 22 hours of lectures gain little or nothing from them. Although, as the module leader pointed out, these lectures represent just 15% of the learning hours allocated for the module, therefore, private study, review, and revision are always likely to be of greater consequence to student outcomes. However, the exam content and its relationship with the lectures were not examined as part of this study, and therefore, any further attempt to explain the disconnect would be speculative.

Filling the pail: content acquisition

It was noticeable that both staff and students spoke almost exclusively in terms of 'content' when discussing the lectures; lecturers 'delivering' it, and students clamorous for it. Attitudes developed markedly in the third year of study; however, the first- and second-year were mainly perceived as periods of content consumption: 'I think you know, it needs to be engaging and there should be a discussion, but also you do just need content, you need to get that knowledge and maybe there isn't necessarily the time to be chatting about one idea in-depth and really picking it apart for half an hour, because you don't really know anything and there's a lot to learn' (FG2_F1).

Despite the module documentation stating that there are 'interactive elements' to the lectures, the students view was, 'definitely, the majority is just the lecturer speaking' (FG1_F3). Talking about approaches to teaching, the module leader said that 'interactive teaching is encouraged', although this is in an informal and unspecified way. Guidance on teaching approaches is given to lecturers only if sought. He contrasts his own 'hyperactive' lecture style which involves 'running around the lecture theatre […] up the stairs […] so that they get a change in perspective', with those lecturers who just 'stay behind the computer'.

The lecturer acknowledges that there is a 'big push to try and make things kind of interactive but I feel that's virtually impossible with that number [of students…] 80/90% of it is just me talking […] I don't really see any way round that'. She continued, saying that the physical space of the lecture hall was limiting, which combined with the volume of material that they had to go through, and the 'huge two-hour long blocks', were 'not really highly conducive to learning [but] the students keep coming to the lectures if you're an engaging speaker'.

For some students, their relationship with the content was characterised by rote learning for reproduction in the exam. One student attends lectures, 'because the slides just don't have enough content on to like answer any of the exam questions'; and another uses lecture

recordings as, 'it really helps me with memorising stuff'. The lecturer implicitly recognises rote learning among students when she complains that: 'some people scribble down everything you say which is not ideal [because] some random metaphor or something that you've given like appears in about ten different exam scripts'.

The module leader and the lecturer then, appear to be focused on the content. There is little mention of what the students do; the descriptions are teacher-centred; delivering content 'to' students, 'getting basic concepts set in students', putting 'your all into the content'.

Isolated teachers and anonymous students

The compartmentalised division of workload creates issues of ownership for the teaching staff on this module. The 'research methods' coursework element of the module is entirely self-contained, and the lectures comprise of stand-alone topics. The module was created and validated some years ago, by staff who are no longer at the University. The module leader assigns the lectures but has no oversight of the lectures themselves; the four lecturers involved are responsible only for their lectures and a proportion of the exam questions and marking. The lecturer said that, while 'in theory you are given a lot of free rein […] in reality there's a set text that students are using' plus existing exam and multiple-choice questions, diverging from the previous year's content would mean a great deal more work in terms of preparation and re-writing exam questions. There appears to be little collaboration between teaching staff in planning the module. The lecturer said that she used to go to the introductory lectures each semester just so that *she* got an understanding of what the students are likely to expect, as if that were her only source of information. Each interaction is a cog in a (fairly efficient) machine, but no one appears to take ownership of the machine. As a result, there is a disconnect with the students; most interactions are at arm's length and largely anonymous. Questions are answered, but no relationships formed. Both staff and students describe a situation that is far more transactional than aspirational.

Teaching the large cohort first- and second-year classes regularly falls to more junior colleagues in the department, and in response to a question about training or preparation for teaching in large lecture theatres, the lecturer exclaimed that she had: 'None! None at all. Sometimes you don't even get the previous [slides] which is *really* hard'. Regarding time to prepare for lectures she thinks that lecturers 'have good intentions, but you end up re-running [last year's content]'. She said that due to workload allocation (two hours preparation per two-hour lecture) and the priority given to research in their career progression some lecturers, 'begrudge the teaching quite a lot of the time, which is a shame'. She added later that, '[I think it's sometimes] really difficult for the students […] to understand why their lecturers are terrible'. Prompted to expand on what 'terrible lectures' entailed, she said, 'there are lecturers who don't think about the two-hour block […] But worst is probably when it's just incomprehensible, they don't make any effort to make it accessible […] some of the slides are awful as well […] I think a lecture really needs shaping, to be in segments, to be a theme, to have focus, to link together'.

That aside, she enjoys the experience, 'I'm a bit strange in that I quite like it [*laughs*] I don't know if I'm a secret exhibitionist or something […] it's like being on stage'. Acknowledging that the interaction with students is limited, she said 'when I was a student […] I really didn't mind just listening', if it was put across in an interesting way. This lecturer was an accomplished student at a top university, who enjoyed transmissive lectures. Her ambition is to replicate that experience for *her* students.

The module leader said: 'we try to encourage [students] to use the social situation of the learning because they can directly discuss certain issues they are unclear about, either with their neighbour or in class or even ask a question, so we encourage also questions during lectures'. The students' perception is that although 'they want people to ask questions more […] I feel like it would be weird. When lecturers [try to] involve people, I feel like everyone backs up because they're not used to it and they don't like it and they do feel self-conscious, so I feel like breaking the dynamic would be quite hard' (FG1_ F1). 'I suppose the alternative is if everybody [asks a question], but if 200 people put their hands up just logistically that doesn't work, so like although you say anybody is free to ask any question, I think everybody kind of knows that you're not' (FG1_ F4). The students from the focus groups indicated that they are quite contented being invisible and anonymous in the crowd.

Normalising uncertainty: peer networks

The social dynamic within a cohort is also one which features in the data and the literature. Most students sat in small groups around the lecture hall. Asked why they posed questions to the lecturer in the break rather than in the lecture, FG2_ F1 replied, 'well, I guess part of it is just being self-conscious, you wonder if that's a question that a lot of people would have'. She was mindful that questions can take up time when there is a lot of material to get through 'because there's like 70 slides and two hours, so I just feel like I don't want to take up like a couple of minutes of 200 people's time if it's potentially just me or a handful of people that have that question […] I worry that it's too disruptive to everybody else, I'm not sure if they would be getting much out of it'. Others were also reluctant to ask questions in the lecture: 'It's probably because I'm self-conscious and like I might feel so stupid, like asking something that […] everybody understands [I wouldn't want to say] "oh I don't get it, can you repeat it", like so I prefer going to the lecturer and asking personally' (FG2_ F2). A recurrent pattern among students is that they feel they are the only one in the hall not to grasp the content, and therefore do not want to expose themselves by asking for clarification.

Fellow students provide support: 'I think for me it's […] the peer network, like I have friends that I'll sit with in my lectures […] and I think it's nice to have that lecture where even in the break […] even if you're not going up and asking questions you can sort of turn to each other and be like, "did you understand that?" And I think it's nice either way because if my friends understand it then great because maybe they can explain it to me in a slightly different way, and if they look back and they go, "no, I didn't get it either, it all went over my head", then it's kind of comforting, in that you're not the only one who has no clue what just happened [*laughs*] if everybody's really stuck, it's, you know, okay, "well let's try and like figure [it out]". If one person looks it up or gets the answer or figures it out, or has a new way of looking at it, they'd be like "guys, I think I've got it" [or] if we all have the same question, one person might go up to the front [and come back with the answer] I think it's something like it's the community of like learning […] it doesn't feel so daunting when […] you have people to like bounce off of, or like if you look round and you can see other confused faces and you're like, it's not just me, it's nice, and I think what I get out of like being physically in lectures, I think it's just the reassurance that […] you can have people in the exact same position who get it and they can explain it or you can just be in this boat of confusion together' (FG2_F4). 'When everyone has the same doubt as you, it's like a sense of inclusivity, you're not on your own with that doubt' (FG2_F1).

This sense that it is okay not to immediately grasp difficult concepts (as long as you're not alone) came up a number of times and illustrates a valuable social aspect to lecture attendance to which the module leader alluded.

Loose coupling: lectures like seeds scattered on the wind

For staff, students, and the Institution, large-scale transmissive lectures are synonymous with higher education. They are normalised to the extent that they are invisible, appearing to require little reflection as to why they exist or what purpose they serve. Once individual lectures are 'delivered', teaching staff have no feedback mechanism to tell them how, or if, students benefit from them. What the students choose to do with the content is left to them. The staff have no knowledge of who attends the lectures, and for those who do attend, how they use the material presented in their learning.

It should be remembered that less than fifty percent of the cohort attend the lectures; however, those that do generally feel that attendance contributes to their learning, a contribution that is a little amorphous in nature. In terms of the lecture's impact on their learning, FG1_P1 said 'I think it's like an indirect effect, like your lectures contribute to your notes which contribute to your learning. Because if I hadn't gone to the lectures, I wouldn't have got such high-quality notes, and then that would have affected my overall learning for like revision, exams and assignments'. FG1_P2 felt 'lonely' and 'weird' when she had missed lectures and said that they gave her the structure she needed to organise her learning: 'Like once I missed two lectures in a week and I was like I feel stuck, like I'm not learning anything new'. FG1_P4 said, 'I just feel better about myself if I go to the lecture. It motivates me to take more detailed notes and do the reading – like a self-perpetuating cycle. It all starts with the lecture'. FG1_P4 said that her notes were better from lectures she attended in person and that 'if the lecture hasn't really been clear I don't really want to go and find out for myself'.

The students from both focus groups were unanimously in favour of lecture recordings (Panopto) as were the lecturer and module leader, although rarely as a replacement for live lectures: 'I feel like Panopto [is not] as direct, and I don't learn as much from Panopto, I have to be talking to people, interacting, and listening first-hand, like to really take the information in, [the recording] just doesn't go in my mind the same way' (FG2_F1). FG2_F2 responded: 'I have the opposite situation, like always I am in the lecture, but my mind is somewhere else […] I am physically there, but most of the time I learn from Panopto'. The survey data tend to support the latter view.

The students were candid about how they used lectures to understand what they did not need to study: 'I think the lectures and slides for me […] are key, [they're] more than 95% of what I do […] there are certain areas that I'm really interested in [but other modules that I just want to pass] So for those […] the lecturer, or module convener is going to be writing the slides […] *and* the exam; [and] in my experience I've just tended to find that if I know the lecture slides […] really, really well, you know, I can get a first without doing any of the reading'. She continued, 'rather than reading a book chapter […] or a whole book in which [only a few paragraphs will be] relevant to the exam [and could take ten hours, and] might only be worth a few marks […] I could listen to ten hours of […] lectures and re-listen to the Panopto and that stuff is going to be a lot more relevant to the exam' (FG2_F4).

Students often used the lectures as a touchstone for organising their schedule, for example: 'I try and go to the lectures because I know that if I relied on Panopto I think it's

harder to motivate myself […] I just feel like it's easier for me to stick to somebody else's timetable rather than having like a whole day of free space' (FG2_F4).

Although not uncritical of lectures and lecturers, students who attended the focus groups and the majority who responded to the survey were positive about the lectures. The theme of 'lectures like seeds scattered on the wind' describes a situation where, without a clear purpose or intent from staff, the students use the freedom they have to find their own ways of benefiting from them.

Discussion

Whatever the intention or expectation of this lecture series, what was delivered was a transmissive allocution containing little interaction between student and lecturer within the lectures themselves. This discussion explores why that is so, and what students may derive from the experience.

This module has all the appearance of two separate modules bolted together to meet QA requirements. The principles of CA were embedded into QA processes in an effort to ensure that learning and teaching became more student-centric and 'active' (see Loughlin et al., 2021). Although the lecture series and the exam represent 75% of the overall module result, it would be challenging for these elements (alone) to meet QA criteria for active/collaborative learning. Most of the discursive and collaborative activity takes place in the self-contained research methods (coursework) element of the module. Because student interaction is checked-off in the module documentation, the course team are free to use the 'standard lecture format' for the balance of the module. Given the institutional ambition to provide 'innovative' and 'active' learning experiences, there is consequently a disconnect between the institutional rhetoric and the larger part of the module, made invisible by the design of the module syllabus. Hence, the function of LOs described in European HE policies and manifested in the module documentation has little to do with the learning and teaching practices they were intended to guard.

How the lectures 'give' students the 'basic knowledge', as described in the module LO, is unspecified. The module leader describes the lectures as an 'introduction' to each week's topic (with no explicit form or outcomes); the lecturer speaks of being akin to a 'personal trainer', guiding students through the material, but emphasising that *they* do the work. Some students viewed lectures as a source of course content, others strategically, gaining insight to help them in the exam, others still, as an enjoyable social occasion with their friends. There is subsequently, no common understanding or expectation of the lecture.

The Institution approved a module description of eleven lectures and an exam, despite its avowal of 'research-informed' teaching; the lecturers then accept their allocation without complaint, while recognising that they are not 'ideal for students or lecturers'; and a proportion of the students attend them because 'they are timetabled'. Each of them trusting that learning will take place during these sessions, but none with explicit rationales for *how* that learning will take place. There is still then an expectation that content and 'thinking skills [will] be absorbed, like some mystical vapours, from an academic atmosphere' (Bligh, 1972, p. 3).

Bligh is harshly critical of the large-scale transmissive lecture-style observed in this case study, and sceptical about the perceived obligation to 'cover ground' in lectures (particularly evident in early-career lecturers), he feels that what is 'important is what the students learn, not how much the lecturer covers' (1972, p. 19).

> This point cannot be emphasised too strongly. The idea that lecturers should use the lecture method and no other for fifty minutes on end is absurd; yet it is quite common practice. (Bligh, 1972, p. 70)

The argument for large-scale lectures is regularly made on economic grounds; however, 'the lecture method is not economic in terms of time or anything else, if it cannot achieve the required objectives, and this achievement is open to question' (Bligh, 1972, p. 19). That more than 50% of the cohort in this study do not attend the live lectures, and those that do benefit so little in terms of exam performance lends support to the idea that the live lectures fail in their only *stated* objective: to 'give' students the 'basic knowledge', which is presumably tested in the examination. The lecture recordings appear to have more of an impact, although if anything, the relative success of the lecture recordings (in comparison to the live lectures—and still modest) reinforces the notion that the *live* lectures are relatively ineffective. If CA were working as intended at the practice level, then the assessment would reflect the intended learning outcomes, and the learning *activities* in the teaching sessions be aligned with the assessment. In this scenario, it would seem reasonable to expect a correlation between attendance at the live teaching sessions and the exam scores. It is possible of course that the issue lies with the assessment rather than the lecture. Even so, following the lecturer's analogy of the personal trainer, if you went to a personal trainer for 11 weeks to prepare for a fitness test, would you expect to perform better (on average) than people who prepared for the test without professional instruction?

It is important to reiterate here that this module is successful in terms of the metrics valued by the University. It is oversubscribed (with academically able students); the student module evaluation results are higher than average for the University, as are the retention and pass rates.

The situation we are describing here is that of a module that performs well; most students pass the course with good grades and are largely satisfied with the course offering, yet the live lectures appear to contribute little to students' success. This could be because the students are academically able and attuned to the requirements of the hidden curriculum. They have established what work they need to do to pass the course, and many appear to require little input from the teaching staff.

There is, however, an over-reliance on the student module evaluation at both the institutional and department level. The response rates for these evaluations at the Institution are typically low (around 30%) and therefore not necessarily representative of the cohort. The research evidence suggests that there is little or no correlation between these scores and the quality of teaching delivered (Tight, 2021); and connected to this are students' misconceptions of effective teaching methods, and indeed their own learning strategies. For instance, in one study, students perceived that in active learning situations, they learned less than in passive lectures, whereas, in fact, the opposite was true (Deslauriers et al., 2019).

The hidden curriculum is premised on the idea that the formal curriculum is undermined by incompatible reward mechanisms for institutions, staff, and students. These reward mechanisms create implicit expectations and demands, antithetical to the aims of the formal curriculum. Institutions, for instance, are required to produce module documentation for QA processes that suggest student-centred teaching (the external audit driven expression of CA/OBE), but are rewarded such that there is no imperative to follow that through into practice (the inner/qualitative expression of CA/OBE) (Loughlin et al., 2021). Trigwell and Prosser argue that the teacher-centred approaches observed

in this study lead to students adopting surface approaches to learning, 'in which the intention is to reproduce the material' (2020, p. 7), and that mindset was certainly evident in the focus group interviews, with many references to rote learning course content.

> The fact is that, while most professors do want their students to explore ideas, generate new questions, and engage in intellectual risk-taking, they find themselves caught in a trap that militates against these goals. Large classes, rigid testing methods, overextended scholars who derive their principal rewards from research, all reinforce the system. (Snyder, 1971, p. 14)

Recurrent practices 'involve unreflective habitual routines […] learned by newcomers during the process of secondary socialisation' (Trowler & Cooper, 2002, p. 238). In this teaching and learning regime, they are the key to the maintenance of the status quo of large-scale transmissive lectures. The Institution, module leader, lecturer, and students all accept their lot, each gaining enough from the hidden curriculum to ensure that none pushes hard for an alternative, an alternative of which they are all aware, but presently have no imperative to pursue. In part, this is because it would entail additional effort from both staff and students for a conjectural benefit. Indeed, academics who adopt active learning approaches regularly suffer in student module evaluation scores, as many students prefer the (less effective) passive lectures (Deslauriers et al., 2019). There is a silent collusion between institutions, staff, and students which reifies the symbolism of traditional lectures and eschews more challenging alternatives.

There exists a delicate state of tension between the main stakeholders. If any of them questioned the educational offering, the power balance would be disrupted. For instance, the students or Institution could insist that the course team deliver the 'active learning' promised in the corporate literature or the academic team insist on resources from the Institution to enable those more collaborative and active approaches. Institutional constraints such as workload, time for preparation, cohort size, lecture theatre layout, student expectations, module evaluations, set textbooks, and career KPIs all appear to conspire in the reproduction of the status quo.

From the students' perspective, the hidden curriculum in this module is not terribly well hidden. The formal curriculum has a set textbook, plus two recommended books and multiple journal articles for further reading. However, the course team repeatedly told the students that only topics 'covered' in lectures would be examined, which is a paradoxical approach to CA as all the recommended reading is then rendered more or less redundant for the purposes of succeeding in the module. Students are able to pick up on the cues of which study behaviour will be rewarded, and 'get the highest grade with the least expenditure of effort' (Snyder, 1971, p. 8), as one of the focus group demonstrated when claiming that she 'can get a first without doing any of the reading'. Channelling both CA and the hidden curriculum, Kickert et al. describe *misaligned curricula*, wherein only sections of curricula content is assessed, and assert that: 'When our curricula are indeed implicitly encouraging students not to invest effort in unassessed learning, the consequences for both students and society will be dire' (Kickert et al., 2021, p. 8).

What then, are the students getting out of attending the lectures? The structure and routine offered by lectures came through strongly in the focus groups and student survey, as did the social aspects of attendance. Student networks operate as independently organised study groups, but also have a crucial support function, encouraging each other to attend, and resolving queries within the group.

An interesting aspect of these groups was their function in normalising uncertainty. Students who found that they were struggling to understand difficult concepts could become extremely anxious, yet if others in their network were also struggling, they were

able to relax as they were all in 'the same boat of confusion'. The realisation that it is okay not to understand everything at first hearing was important for these students.

The most surprising finding of this study was the lack of intentionality with regard to lectures; neither staff nor students could articulate a clear sense of their purpose. The students who go to lectures regularly enjoy them; they do not seem to overthink attendance, and, rather like their lecturer before them, in most cases, it simply 'doesn't occur' to them not to attend. On the whole, there is no driving motivation, rather a sense that the lectures are provided, and 'if it's timetabled, you might as well go'. The primary benefits for the students appear to be the routine and structure that lectures offer, along with an opportunity to clarify problem areas, either with the lecturer during the break or with their peer network.

Conclusion

> Their lectures contain the necessary information; there is little recognition of the inevitable fall-off of attendance as the weeks progress, or of the passive response of the majority of the class. Or, if acknowledgement is made, it is soon wrapped in the comfortable assertion that the students are free agents, they can attend lectures, take advantage of the library and the facilities as they see fit, cull through a bibliography, learn on their own. (Snyder, 1971, p. 119)

Government and regulatory bodies of UKHE all espouse the virtue of student-centred approaches to learning and teaching, while simultaneously cutting funding per-student to levels that adversely impact staff-student ratios and contact hours. The Institution promotes active learning, while at the same time stipulating large class sizes and building fixed-seat lecture halls, which make that difficult for academics. The academic department also promotes active learning, while simultaneously enacting a bureaucratic style of leadership and allocating large-class lectures to junior colleagues, both of which, research indicates, lead to teacher-centred approaches (Trigwell & Prosser, 2020). The lecturer would like to use more student-centred approaches but does not have the workload capacity, or reward mechanisms to facilitate it. That students then adopt surface or instrumental approaches to their studies seems almost inevitable. That they do so well and seem reasonably content is perhaps more puzzling.

The Hidden Curriculum and *What's the use of Lectures* are as relevant now as they were fifty years ago. While Bligh describes the problems with large-scale lectures and offers solutions, Snyder explains the implicit reward mechanisms for institutions, staff, and students, which tell us why those solutions are unlikely to be enacted (at scale) within contemporary HE.

As large-scale lectures are destined to be with us for some time, what can students extract from them? Student claims about the efficacy of their various study techniques can be questioned, but the emotional support offered by the informal networks created in lecture theatres is plain to see. And maybe that's enough. While the mensurable impact of the lecture may be muted, it provides the space for these informal networks to exist. It would appear that for many of these students, the conversations and clarifications that take place in the breaks and after the lecture are (at least) as important as the content of the lecture itself.

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Ethics approval Obtained at the University where the study took place.

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Competing interests The authors declare no competing interests.

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Paper III

TEACHING IN HIGHER EDUCATION
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The illusion of attendance: a critical study of large-class lectures

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ABSTRACT

Large-class university lectures remain commonplace, yet their educational value is contested. While the majority of criticism contrasts transmissive lectures with active learning pedagogies, this case study evaluates a lecture series on its intrinsic qualities, looking at staff and student understandings of the lecture's contribution to academic outcomes and the affect attendance has on students' study habits. The study took place within a health sciences module at a UK university. Data sources included lecture observations, interviews, focus groups, a survey, and institutional documentation. The conceptual framework used in the analysis is Snyder's *Hidden Curriculum*, in which the formal curriculum of knowledge creation, is undermined by implicit expectations which foster instrumental learning behaviours. The findings indicate that the low demands placed on staff and students in transmissive lectures encourage an 'illusion of attendance' – in which assumptions of learning from, and physical attendance at, large-class lectures are greater than empirical data evidence.

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Lectures; large class teaching; hidden curriculum; constructive alignment; learning outcomes

Introduction

The educational value of lectures within higher education (HE) is contested. Regularly condemned as an obsolete relic of a bygone era (e.g. Zinski et al. 2017; Jones 2007), they are almost as frequently lauded as the last bastion of scholarly practice (e.g. Pike 2019; French and Kennedy 2017; Furedi 2013; Körner 2004; Fulford and Mahon 2020). A common feature of both claims in this discourse is that the authors are usually referencing a very specific style of lecture. Those decrying the lecture have in mind a dull monologue in which the lecturer reads from their slides; whereas those advancing the lecture method are usually portraying either, a highly interactive experience which involves a great deal of critical engagement on the part of students, or an arena in which the research active academic explores the cutting edge of their discipline.

The polemics are necessarily simplistic and do not represent the large proportion of academics for whom large-class lectures are a pragmatic necessity, and the limitations

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of the format are accepted as 'structural constraints perceived to be beyond their control' (Skelton 2012, 257). The argument for large-class lectures is often made on economic grounds, however, Bligh (1972), contends that transmissive lectures cannot be cost-effective if they do not achieve their educational aims, which he claims, is often in doubt.

Much has been written about why lectures are good or bad; much less on the beliefs, attitudes and norms which inform students' decisions to attend lectures in the first place, and how attendance itself affects their learning habits. This empirical study draws on a subset of data from a semester-long case study of a second-year module (course) in the health sciences. The case study approach was chosen to allow for a deep-dive into a particular lecture series, gaining the perspectives of the institution, staff, and students. Data sources include lecture observations, a student questionnaire and focus groups, staff interviews, module documentation and exam results. Thematic analysis (Braun and Clarke 2022), was used as the analytic tool as both inductive and deductive codes were considered. While primarily qualitative, a mixed methods approach has been taken using quantitative data to triangulate or verify some aspects of the case.

Although teaching practice in HE varies considerably, with some student-centred approaches happening (even in large fixed-seat lecture halls), the balance of research suggest that firstly, a great deal of transmissive teacher-centric lectures continue to take place (Schoepp 2019; Gynnild et al. 2021; McKeachie 1980); and secondly that, those transmissive lectures are less effective for student learning than the student-centred approaches avowed in the formal quality assurance (QA) process (Baepler et al. 2023; Freeman et al. 2014; Deslauriers et al. 2019; Bligh 1972). While this paper views teaching practice through the lens of the student-centred approaches to education promised in educational strategies and quality assurance documents, its purpose is not to argue for student-centred approaches to learning and teaching, but rather to examine large-class transmissive lectures on their own merit; that is, the perceived value for academics and students, and the observable value in terms of assessment outcomes.

Large-class transmissive lectures are ubiquitous in mass education around the world, and issues of attendance are regular topics of discussion (e.g. Olusoga 2022; Williams 2022; Basken 2023); and so, while this case study emanates from the UK, the findings are pertinent for an international audience. This article contributes to the literature by confronting the comforting, and typically untested assumptions of efficacy which prevail in relation to large-class lectures; it introduces the notion of the 'illusion of attendance', in which staff and student perceptions of learning and physical attendance are discrepant with the observed phenomena.

In contemporary HE, espoused educational values are articulated through the constructivist and student-centred approaches embedded in national and European QA processes (Adam 2008; Jackson 2002). Snyder (1971) argues that implicit reward mechanisms for staff and students militate against the student-centred approaches espoused in the formal curriculum. The 'unstated norms, values and beliefs transmitted to students' (Giroux and Penna 1979, 22) create a hidden curriculum of teacher-centric approaches which are associated with instrumental (surface) approaches to learning by students (Trowler 2019). Thus, it is Synder's notion of the hidden curriculum that forms the conceptual framework for this article, with particular attention given to the ways that practice sometimes undermines the formal curriculum as articulated in QA processes and educational strategy documents (Hinchcliffe 2020).

This article explores the *enigma* of large-class lectures. That is, the paradigm of a contested pedagogic approach which, despite the apparent shortcomings when compared with student-centred approaches, has secured normative status within higher education.

It is the incongruence of student-centred policy and teacher-centred practice that informs the research question, which follows a brief literature review.

Literature review

Debate regarding attendance at university lectures, and the learning that takes place there, is by no means new. In eighteenth-century England, students were no longer required to prove attendance at lectures in order to graduate. One result of this was that students 'had no great incentive to attend the lectures because they usually lay outside the subjects examined for degrees' (W. Clark 2007, 82). However, academics' renumeration was often linked to delivering lectures, and so they would give lectures irrespective of how many students attended. Famously, Isaac Newton 'oftimes […] in a manner, for want of Hearers, read to the Walls' (Newton 2004).

Attendance at contemporary lectures can be a sensitive issue for academics, and non-attendance likely to be taken as a personal slight (Gump 2006). Common reasons given by students for attendance are knowledge acquisition (this can take the form of direct instruction, focusing on areas of difficulty, establishing what knowledge is required to get a good grade) and enjoyment (Kottasz 2005; Sloan et al. 2020). Those most regularly cited for non-attendance are competing academic priorities and convenience issues such as, time of day, transport, or other commitments (Bati et al. 2013; Khong et al. 2016).

It is generally acknowledged that attendance suffers more in large-scale lectures (Friedman, Rodriguez, and McComb 2001), although, few studies on the topic differentiate in this way, often not stating the type of lecture environment. A frequent theme amongst the literature in this field is the correlation between attendance at lectures and academic success. There often is such a correlation (Credé, Roch, and Kieszczynka 2010), and an implicit (occasionally explicit) assertion of causality (e.g. Ancheta, Daniel, and Ahmad 2021). While that relationship will not be explored extensively in this paper, it should be recognised that motivated and engaged students are academically successful (Delfino 2019); it would be reasonable to suppose that motivated and engaged students are more likely to attend lectures (Friedman, Rodriguez, and McComb 2001). Thus, the impact of large-scale lectures on academic achievement is not a given.

Kassarnig et al. (2017) report no significant difference in outcomes for those attending lectures; while Rodgers (2002) found that incentivising students to attend lectures led to an increase in attendance but not in student outcomes, in one subset of the study students did worse in their assessment.

Dolnicar (2005) also reports an inverse correlation between attendance and success and claims a shift towards student pragmatism, in which students are becoming more strategic in approaches to lectures and learning compared to a few decades ago. However, attendance data has not been collected or made available on a scale sufficient to identify or quantify trends. Certainly, the context for today's students is very different from earlier generations. Much larger cohort sizes, a more academically diverse student population, a greater availability of online resources, and less contact

time per week. For instance, it is now commonplace for students to travel for several hours for just one or two lectures on a given day (Gysbers et al. 2011).

The effect of the availability of lecture recordings on attendance is another area of contention. There is a perception amongst some academics that lecture recordings adversely affect attendance. However, the literature is not yet definitive on the issue, and even where true, the effect would generally appear to be modest (e.g. Nordmann et al. 2019).

Khong et al. (2016) and Bati et al. (2013) are two examples of studies which differentiate lecture attendance by year of study and, while most responses are in line across the years of study, there is interesting divergence, with further evidence of evolving strategic behaviours. For instance, final-year students were more likely to attend lectures for specific purposes such as exam tips or lecture notes, whereas first- and second-year students were less academically targeted with their rationales, with things such as enjoyment featuring. Furthermore, first-year students were more likely to miss a lecture because of the early start time or because they were 'boring', but much less likely to miss them because of competing academic deadlines.

Kottasz (2005) raises personality types as an influencer on attendance, suggesting that 'stable' introverts along with those who have lower self-esteem, were more likely to attend, and that those prone to anxiety and stress are more likely to miss lectures (many studies report illness as a major reason for non-attendance). Allied to this is the common complaint from students that they find being singled out and asked questions in front of peers stressful, which could feed into the personality traits associated with non-attendance.

Personal psychology and beliefs play an important role in whether students choose to attend lectures, but also in how they experience the event itself. Deslauriers' et al. (2019) study found that students thought they learned more in passive lectures than in active learning sessions, whereas the reverse was true. Carpenter and colleagues talk of an 'Illusion of learning' in which students', 'judgments of their own learning are often misled by intuitive yet false ideas about how people learn' (Carpenter, Witherby, and Tauber 2020, 17). Their study also looked at student evaluations of instructors and learning experiences and found that many commonly held beliefs of effective teaching are misplaced. Of course, instructors were one-time students and are likely to carry the same misconceptions into their teaching careers. Importantly, universities reward lecturers (through career advancement) based partly on student evaluations, which encourage transmissive lectures as these are likely to be rated more highly than active learning alternatives, even if they are less effective (Tight 2021).

Given the empirical evidence of the transmissive lecture's shortcomings and its continued dominance in practice, the research question (below) focuses on staff and student perceptions of the value of the lecture and its place in contemporary higher education.

Research question

The research question is concerned with the epistemic conceptions which contribute to the normalisation of large-scale transmissive lectures within higher education.

> How do the perceptions of staff and students concerning the educational value of large-class lectures affect their response to attendance, and the place of lectures, within the learning process?

The case

This module was chosen for the study on the basis of its credentials as a 'common case' (Yin 2009) within the university where the study took place. The Case is a semester-long module (course) which is part of an oversubscribed health science programme. Competition for places is high, and numbers are limited to 180. The module is equivalent to 7.5 European Credit Transfer System (ECTS) and took place in the UK at a research-intensive Higher Education Institution (HEI). The module is compulsory for second-year students on the programme, although the lectures within it are optional.

The module is split into two self-contained parts, a research methods section which comprises: five two-hour seminars; culminating in a piece of groupwork accounting for 25% of the final grade. The primary focus of this study is the second part, which consists of a series of eleven two-hour lectures, these relate to an exam that accounts for 75% of the final grade.

The lectures were conducted in a 200-seat raked (tiered) fixed-seat lecture theatre and took place mid-week between 11am and 1pm. Five lecturers were involved in the teaching. At the start of the semester there were 179 students registered on the module, and 169 completed it. The cohort size falls within the mid-range at the University and the 200-seat lecture hall is the most common size of fixed-seat venues. The discipline (in the health sciences faculty) is obviously the most contentious point for claiming a *common case*, however, observations across a range of distinct disciplines, in the specific context of a large-scale lecture, suggest that disciplines have more in common than separate them. Within the context of large-class lectures, comparisons of 'effective teaching do not vary markedly across the academic disciplines' (Dolnicar 2005, 4). The major variables which affect student engagement with the lecture, such as personality, enthusiasm, and structure, operate independently of the discipline (e.g. Bligh 1972; L. B. Clark 2018).

Methodology

Ethical approval for this research was obtained from the University where the study took place prior to data collection. Informed consent was obtained from all participants.

The case-study methodology (Yin 2009) was chosen as suitable to explore a complex social practice enclosed in a module and framed by formal curricular structures. This article draws on a subset of data from the case study, including:

Staff Interviews and Focus Groups: The data collected from the two semi-structured staff interviews (the module leader and primary lecturer) and two student focus groups. All students were invited to take part in the focus groups, and everyone who volunteered was accommodated. The first focus group (quotes labelled FG1) took place shortly after the module ended (five female students including two international); and the second focus group (labelled FG2) addressed issues relating to reasons for attendance which arose from the first focus group; specifically, around reasons for attending, and perceived benefits. It took place one year later and was comprised of different students from the same cohort, who were now in their final year (four female students including three international). The students who took part in the focus groups received gift vouchers to compensate them for their time.

Observations: Seven of the 11 lectures were observed (including all 5 instructors who taught the module), and lecture recordings of the remaining 4 were viewed. The observations were focused on student engagement (notetaking, distractions etc.) and staff approaches to teaching (transmissive/interactive) and included the attendance count.

Student Survey: All students enrolled on the module were invited to take part in an online survey relating to notetaking practices, engagement with lecture recordings, and attendance rates. Several questions from the survey are relevant to this study and detailed in the themes which follow. Of the 169 students who completed the module, 100 participated in the online survey. Students were incentivised to take part with 'lab tokens' which contribute to extra-curricular credits.

Institutional Documentation: Institutional policy, education strategy, syllabus, and module-guides were gathered and analysed. Particular attention was paid to descriptions of pedagogy, approaches to education, and teaching practice.

Institutional Data: This includes VLE access by students and lecture recording minutes viewed by students, along with exam scores.

Thematic analysis, as described by Braun and Clarke (2022), was the basis for analysing the data (which comes from a range of sources) to identify patterns and themes. Thematic analysis was chosen due to its flexibility in that both inductive and deductive approaches were taken, and semantic and latent codes considered.

The initial phase of analysis produced codes such as isolation, anonymity, enjoyment, friends, study habits, and anxiety. Through an iterative analysis of the data, the following themes were developed:

- The illusion of learning from lectures
- The illusion of physical presence at live lectures
- The anxiety of attendance and the comfort of anonymity
- Lecture recordings as a source of certainty.

The themes are reflected below with accompanying data excerpts as supporting evidence. They are then drawn together under the overarching theme: *The illusion of attendance*.

Quantitative results

Data were collected from a student survey ($n = 100$), VLE content access ($N = 179$), and lecture recording views ($N = 179$); these were considered in relation to the coursework grade (weighted 25%), exam mark (weighted 75%) and final module grade.

Statistical analyses were carried out in R-studio in relation to exam scores for:

- self-reported attendance at live lectures (student survey) – ANOVA
- VLE content access/time spent (system data) – Linear regression
- lecture recording minutes viewed (system data) – Linear regression.

The only significant positive correlation found in the data was that of lecture recording views and exam scores, ($r(167) = 0.279$, $p < .001$) explaining just 7.8% of the variance.

This correlation applied almost equally to those students who indicated in the student survey that they did not attend live lectures regularly.

Fifty-eight students (33% of the cohort) watched less than one hour of the 22 hours of recorded lectures and averaged 59.4% in the exam (the cohort average was 61.2%). There were slight (non-statistically significant) positive relationships for attendance at lectures/exam scores and VLE visits/exam scores.

Themes and discussion

The analysis and discussion have been combined to avoid repetition and provide a more coherent narrative, starting with some background for the themes which follow.

The students in the focus groups and those who responded to the student survey were mostly positive about the teaching provision and particularly the live lectures. It is noteworthy that only 15% of students in the survey considered *learning* to be the primary purpose of attending lectures. There is quite a utilitarian feel to the other answers for attending/not-attending, such as, 'paying for them', 'correlated with success', and 'time of day'; this resonates with *The Hidden Curriculum* (1971) in which students respond to cues in their courses to learn only that required to pass the examination, a phenomenon also noted in Kickert and colleagues (2022) recent study.

The illusion of learning from lectures

The lecturer acknowledged that the large-scale lecture environment was 'not really highly conducive to learning […] I think we know from a lot of the studies it's not the best way to learn and these huge, long, two-hour blocks are not great for the lecturer or the student'. She went on to say that there was a vast amount of content to 'cover' in the lectures. Both she and the module leader gave the impression that they felt obligated to 'cover' all the material that could come up in the exam. Although the institutional educational strategy and module QA documentation promise student-centred approaches to learning and teaching, the observations revealed primarily transmissive lectures. The lectures were described in the documentation as having 'some interactive elements', which actually consisted of a two-minute discussion period before the break, these 'discussions' were rarely followed up by the lecturer. Because of the lack of follow-up, few students engaged with the discussion topic; instead, checking their phones and chatting during this time.

Reflecting comments in the survey, students in the focus groups spoke of the benefits of attending lectures in terms of direct learning, for instance, FG2_1 said 'I'd probably say actually understanding'; however, she went on to explain that during her first year she 'could not understand some of the theories', saying that she would have to read around the topic before or after the lectures to actually learn the concepts. This student was not alone in stating that she learned course content directly from lectures yet, going on to describe a process involving a great deal of private study and revision. After some reflection on the effort required (outside of the lecture hall) to learn new concepts FG2_3 said 'Mm, [pause], I think it's the same, yeah, going to a lecture or not, not that different for me'.

There appears to be a dichotomy in the way staff and students understand the nature of learning. That is, understanding that mastering new material requires time and effort

(*a process*), coupled with the *belief* that merely attending a lecture and hearing the information results in learning the course content (*an event*).

Central to the student-centred theories of learning which underpin QA and curriculum design is the notion that learning is an active *process*, in which each student constructs their own knowledge, based on prior understanding and new experiences (Loughlin, Lygo-Baker, and Lindberg-Sand 2021). Antithetical to these constructivist ideas of learning are what Freire (2017) describes as the 'banking' system of education, wherein the all-knowing teacher deposits information into the student depositories. According to Freire, this system is devoid of inquiry, students are expected only to regurgitate, largely, decontextualised information. Despite the quality assurance process and effusive education strategies which proclaim the former, it is this latter model which is often seen in large-class university teaching (Schoepp 2019).

From the interview and focus group data in this study it is difficult to escape the conclusion that many staff and students believe that simply by attending lectures and listening, that knowledge will be 'absorbed, like some mystical vapours, from an academic atmosphere' (Bligh 1972, 3). On one level the lecturer is aware of the limitations of the live lectures, however, throughout the interview, there was also the implicit assertion that she must cover *all* the course material during the lectures; as if, were it not covered, the students could not learn it; a stance explicitly criticised by Bligh (1972).

The students too perceive the live lectures through different lenses depending on the context. One said: 'Like once I missed two lectures in a week and I was like I feel stuck, like I'm not learning anything new' (FG1_2); and several described a direct effect such as taking more comprehensive notes as a result. Conversely, several also described situations where conceptual understanding of topics 'covered' in the live lectures happened either before or after lectures during private study. While this is to be expected, it runs against the implicit assertions of learning as an *event* (from lectures) made by staff and students.

The illusion of physical presence at live lectures

The module leader emphasised the autonomy of students in relation to the lectures. Attendance is not monitored, and the students are free to attend lectures or not, 'as long as [they] do not complain about not knowing something that has [been covered in the lecture]'. During informal conversations with teaching staff on this module it became apparent that the perception among all of them was that 'most' students attended the live lectures, in her interview the lecturer said, 'usually it feels like there's quite a high percentage of people who do come […] if they don't want to come that's up to them, they're adults, I don't really care'.

The observed attendance at lectures in this series ranged between 35% and 44% of the cohort, however, from the front of the lecture hall looking up at the steeply tiered rows of seats, it would be easy to imagine more, as the students were fairly evenly dispersed around the hall. This overestimation by staff buttresses their narrative that 'if you're an engaging speaker […] they do keep coming' (lecturer interview). The lectures' presence in the learning design did not seem to require any further justification, and no attempt was made by the academics to rationalise them on purely educational grounds.

The student survey questions covered a range of topics and two of the questions relating to attendance are relevant to the *illusion of attendance*. Students were asked to indicate their attendance at lectures on a four-point scale, ranging from '1–3' to 'All of them'. Taking the averages of claimed attendance from the student survey and extrapolating that out for the numbers in each group, one would expect a minimum average of 51% cohort attendance from survey respondents *alone* (100 out of 179), which would be at least 12% above the *observed* attendance. The 12% assumes that none of those who did *not* respond to the survey *ever* attended, which is almost certainly not the case, and is therefore likely to understate the situation. Sloan et al. (2020) note a similar finding with students over-reporting attendance at lectures, by almost 25% in their study.

All the students from both focus groups indicated that they attended most, if not all, of the lectures. As the conversations unfolded, however, they revealed quite a long list of caveats whereby they would skip lectures. The most common cause for missing lectures was illness, which seemed to affect most of them, some for extended periods, but other reasons included work, timetabling issues, and other academic deadlines. FG1_4 said,

> I do go to most lectures because that's what I'm paying for, but yeah, if they're teaching me something that I already know […] I probably wouldn't be inclined to go because it's sort of wasting two hours of my time that I could spend doing an assignment or something else.

The paradox being their enthusiasm for lectures in theory, coupled with a lack of attendance in practice. From these caveats, it starts to become apparent whereby the students overestimate their actual attendance.

This overestimation of attendance at lectures by students is potentially detrimental to their learning. If they believe that they attend more than they do, and they also believe that attendance has a causal relationship with their outcomes (as many do), there is a danger that they may engage less in private study (than students who do not attend) as a result.

In this study, there was an inverse correlation between students who attended the most live lectures and their engagement with lecture recordings and other VLE resources. In this case, the relationship with exam scores was not statistically significant; however, that may not always be the case with more academically diverse cohorts. Both Rodgers (2002) and Dolnicar (2005) report an inverse correlation between lecture attendance and exam scores, and in a study that was ostensibly looking at the provision of lectures slides and note-taking, Kiewra (1985) found that students who did *not* attend lectures but had access to full lecture notes, outperformed those who attended the live lectures by a considerable margin.

The anxiety of attendance at live lectures and comfort of anonymity

Anxiety is known to impact student behaviours in class (Archbell and Coplan 2022) and was infused throughout the student responses in the survey and in the focus groups. Anxiety or stress were mentioned in relation to attendance, missing class, speaking in lectures, being asked questions in lectures, being asked to speak with other students, lecture recordings, lecture slides, reading lists, note-taking and, of course, assessment. A notable absence from the list was learning the discipline; there was no mention of any anxiety because of an over-arching desire to become experts within their field of study. Possibly

this is implicit and therefore unstated, however, there was a sense that the laser focus on the assessment precluded much else; which again, is a feature of the utilitarian behaviours expected in the hidden curriculum (Kickert et al. 2022).

Attendance at the lectures on this module is not mandatory, and so the focus group students were asked if they felt they were *expected* to attend the lectures. 'I feel like I'm expected to go to lectures [but it's] you as a cohort [that] are expected to be there'. FG2_4 said, 'It's like if I personally don't turn up it would only be my friends who I sit with who would notice that I wasn't there'. It was notable in both focus groups that, even though the lectures were not compulsory, the students were only comfortable missing lectures when they thought they were anonymous. In small group teaching for instance, they were far less likely to skip lectures, whether mandatory or not. Although, as Rodgers (2002) found, artificially increasing attendance is no guarantee of improved learning outcomes for students.

The lecturer is not aware of who does and does not attend her lectures: 'You recognise some faces but it's surprising how many you don't […] so you fake smile at everyone!'.

FG2_4 said: 'I feel like I know the lecturers, but the lecturers wouldn't know me'. At the time of the focus group, she was on a work placement at the University and was working on the same floor as some of her lecturers. At first, she would say 'Hi' to them, and they would just be completely blank, and then she realised that: 'I've sat in your class for like a whole semester and obviously […] you don't know who I am'. Faced with many hundreds of students while teaching on multiple large-cohort modules, it is perhaps unsurprising that staff tend to have little sense of students as individuals. More remarkable was the students' attitude, often embracing the anonymity provided by large numbers.

There was general agreement among both focus groups that asking and being asked questions during the lecture was unnerving:

> It's big […] the lecture theatre is big because it's supposed to be for what, two-hundred people […] so it's big. And if you're not sitting in the front row and you need to kind of yell so that the lecturer can hear you. (FG1_P1)

> 'Yeah, and they all look round' (FG1_ P2).

Some lecturers (on other modules) were avoided if the unspoken rule of anonymity of students was threatened:

> I tried to go to more lectures but there was one lecture [not the module in this study] I didn't like going to because [the lecturer] picked on people to ask questions […] So, I stopped going and just listened to [the recordings]. (FG1_ P2)

> Yeah it affected a lot of people […] even by the like the fourth lecture it was like half as full as at the start […] it just makes you feel really like intimidated […] if you can't answer [in front of the] whole class. (FG1_ 3)

> 'I just feel really like … I don't want to answer a stupid question' (FG1_1).

There was a difference in this regard between second- and third-year students, with an increasing expectation from the third-year students that the (smaller) lectures would be more discursive, and they had more confidence, enabling them to offer an opinion.

Lecture recordings as a source of certainty

Linked to the lecturer's desire to cover *all* of the content, is the students' desire to consume it. Lecture recordings and slides are seen by many as a reliable source for that content. Minimalist lecture slides were not popular because: 'I worry that if it's not on the slides I might have somehow like misheard it, misinterpreted' (FG1_3). While three of FG1 used lecture recordings regularly, particularly for revision or missed lectures, FG1_4 said, 'I've probably only used [the recordings] about three times since I've been here […] I think for me it's more reassuring to know it's there, but I don't necessarily use it'.

FG1_3 said, 'it was great that you still had a source of information you could trust, because then of course we had the reading. But many of the things in the chapter maybe you don't need', suggesting that the lectures helped narrow the focus of study. So, 'of course you want to minimise the amount of time you waste […] that information, it might be interesting, but you don't need it [for the exam]'. Kickert et al. (2022) describe *misaligned curricula*, wherein only sections of curricula content is assessed, and assert that this knowledge leads students to neglect unassessed learning; they echo Snyder's concern that this has dire consequences for students' education.

Students were aware that some lecturers (on other modules) did not record lectures in order to encourage attendance, which caused some resentment amongst those who do attend the lectures but like to have the recordings as a safety net. FG1_1 said, 'if people don't want to show up, they're not going to show up either way […] So it just makes it unfair for those of us who do [use them] to take it away as a resource'. FG1_3 added that, 'we're not 12 years old, like we're adults – if you don't go to the lecture like it's your loss'.

All the staff on this module appeared comfortable with the provision of lecture recordings and unconcerned with the possibility of it adversely affecting attendance. Both staff and students raised the point that, as adults, it was for individuals to decide whether they attended lectures or not. Around 15% of the student survey respondents suggested that they missed lectures due to the availability of recordings, but this was often linked to other rationales, such as a dislike of the lecturer or topic, therefore those missing lectures purely due to the existence of the recordings is relatively modest.

Students also used the recordings to engage with lectures differently, or avoid them completely. Explaining why she missed another module's lectures FG2_F4 said: 'because they are recorded [and] it's not my favourite module […] when I'm at home I can just speed it up a bit'. Asked to confirm that she deliberately avoided some lectures so that she could fast-forward through them, she said: 'Yeah, cos it's like you can regulate the speed. I feel [the lecturer] talks *really* slowly'. FG2_P3 said 'if I really don't like the content, I'm not engaged. [If] I know that I will be more productive in the library, and I can speed up the recording […] I'll just go to the library instead'.

The decision to eschew some live lectures based on the teaching style of lecturers was linked to the norms of the format. Unfavoured lecturers or 'boring' topics could be missed with impunity because of the anonymity provided by large numbers. Lecturers who challenged that anonymity by targeting individual students to answer questions during lectures were not popular. For instance, focus group attendees reported one

lecture series (not the module being studied) which saw a drop-off in attendance from around 200 students, to just four by the final lecture.

Thus, while some students used the recordings to pause and rewind for areas of difficulty, the majority sped up the recordings to 'get' the lecture content in half the time. The use of lecture recordings in this way demonstrates the anxiety associated with attending certain live lectures (Archbell and Coplan 2022) and is another example of students thinking they go to most lectures but finding reasons not to.

Overarching theme: the illusion of attendance

The illusion of attendance is the result of a complex mix of misplaced epistemic beliefs, anxiety, and misconceptions of learning in specific contexts (e.g. Carpenter, Witherby, and Tauber 2020). The illusion of physical attendance and learning are the more apparent manifestations of the phenomena, but inextricably linked to the other themes explored here.

In many ways, anxiety is the glue that binds these themes together. It drives some student behaviours in relation to physical attendance and the use of lecture recordings; it also fuels the 'illusions of learning' described by Carpenter, Witherby, and Tauber (2020) and Deslauriers et al. (2019). It is possible that the high-achieving students in this study have a keener sense of anxiety than most, academic success being part of their identity. Nonetheless, given the uncomfortable feelings of doubt and confusion which can accompany knowledge construction in active learning scenarios (Carpenter, Witherby, and Tauber 2020), the appeal to many students of transmissive lectures delivering fully formed concepts with authority and the appearance of certainty, should not be underestimated.

Student anxiety can be seen in their attitude to, and use of, lecture recordings. Lecture recordings have the potential to impact attendance at the lectures, but also student's learning behaviours during the lectures, and beyond. The most interesting reasons given for missing lectures due to the availability of recordings were those who viewed the recordings so that they could avoid certain live lectures. This is linked to student anxiety, with many fearing the spotlight of being singled-out for questions, and in some cases, it affected their decision to attend.

In terms of learning from lectures, the work of Carpenter, Witherby, and Tauber (2020) and Deslauriers et al. (2019) suggests that students believe they are learning more effectively in lectures than in active learning classes. This overestimation of the learning that takes place in the lecture hall (which exists because in transmissive lectures students can avoid having to articulate their own conceptual understanding) could lead them to study less outside of class as a result. There are indications in this study that students may engage in less private study if they attend lectures, possibly based on those beliefs. However, further research is required to establish the extent to which this effect exists, and what the implications are for student outcomes.

The findings from this study resonate strongly with the work of both Bourdieu and Snyder from more than fifty years ago. Bourdieu et al. talk of 'complementarity of behaviour which inevitably assumes the outward appearance of complicity between teachers and taught' (1996, 23), in which the utilitarian practice of staff and students bypass the intellectual requirements of the formal curriculum in an unspoken accord. Snyder

goes further in suggesting that the instrumental approaches to education seen in this study, encourage short-term assessment-driven learning, which leads to long-term impairment for students when placed in real-world settings.

The implicit contract between students and staff; that if you turn up to live lectures you will be given privileged access to information that will benefit you in the examination, is pernicious and does a disservice to students who are promised a 'transformational' educational experience.

For institutions and academics, transmissive lectures are the path of least resistance, they are often aware of the lecture's limitations but choose not to shine a light on its inefficacy and the half-empty lecture halls. It is the untested assumptions of efficacy and the convenience of the format which allow large-class transmissive lectures to remain dominant, and largely invisible, within university education.

Those academics interested in changing the status quo might wait some time for institutions to develop structures and mechanisms to encourage student-centred approaches to learning and teaching. Therefore, to precipitate change they would have to reflect on, and clarify the purpose of their lectures, and the role of attendance at live lectures in their learning design; students need a *reason* to attend beyond a *requirement* to attend. Successful student-centred/active learning approaches to learning and teaching often increase attendance as well as academic outcomes (Baepler et al. 2023). Some feedback mechanism is also essential in order to iteratively improve the efficacy of teaching sessions and sustain student engagement (Molloy and Boud 2014).

Conclusion

There is an argument that attending lectures (and university itself) have value beyond any available metrics; and while that may be true, should there not also be a demonstrable impact of the very limited contact time which students have with teaching staff? Certainly, the principles of constructive alignment (the curriculum theory that underpins the QA processes) suggest that there should be.

This paper is not intended as a criticism of lectures per se, this particular module, the teaching staff on it, or the Institution. As mentioned in the introduction, lecture styles and context vary profoundly across programmes, and therefore no sweeping claims of generalisability are made of the findings from this case study. However, the study is generalisable to theory (Yin 2009), in that (as a common case) it exemplifies the relative inefficacy of transmissive lectures predicted in constructivist educational theory and adds to the body of literature demonstrating their limited contribution to students' academic outcomes.

The *illusion of attendance* then, refers to the judgements that staff and students make about their physical attendance at lectures, and the impact that attendance has on student learning. These illusions are not simple overestimations, but misconceptions which reinforce misplaced confidence in the educational value of lectures; staff need the illusion of student attendance, which, coupled with the success of the module, encourage its unquestioned inclusion in the learning design. The norms having been established, the staff put on lectures because some students come to them, and some students attend them because they are timetabled. Breaking that cycle (at scale) however, and introducing the collaborative or active learning alternatives proclaimed in the institutional literature

would require far more appetite for change than is currently in evidence from either staff or students.

Only by addressing the *illusion of attendance* and encouraging active, reflective, and critical engagement with lecture content, can lecturers enhance student learning outcomes and foster more meaningful educational experiences.

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Paper IV

Building Higher Education: The Tension Between Espoused Educational Values and Physical Infrastructure

Abstract

Through interviews with senior academic management representing sixteen UK higher education institutions (HEIs), this study explores the relationship between the espoused pedagogical values focusing on student-centred learning, and the construction of large-class, fixed-seat lecture theatres. Despite the widespread promotion of student-centred, collaborative, and active learning approaches in university policy, educational strategies and corporate literature, the physical infrastructure reflects a different set of priorities, often driven by logistical and financial considerations rather than pedagogical intent.

The conceptual basis for the article is Argyris and Schön's theory of action; a theoretical framework that distinguishes between organisational espoused theory (what organisations say they do) and theory-in-use (what they actually do). The framework was designed to better understand how organisations produce behaviour sometimes at odds with their own values. The results of the study reveal a remarkable lack of pedagogical intentionality behind the investment in large-class auditoria.

This study contributes to the discourse on the alignment between HEIs' physical infrastructure and their educational policies, highlighting a significant gap between pedagogical ideals and the realities of the physical teaching spaces created.

Introduction

This study has its origins in the story of Northampton University's mid-2010s campus relocation, in which they chose not to build *any* lecture theatres (Armellini, Teixeira Antunes, and Howe 2021). At the same time, a university in a similar part of the UK was building a 500-seat lecture theatre, which prompted questions around how institutions arrive at these decisions.

Large-class lectures form the backbone of undergraduate teaching for many universities, yet their place in contemporary higher education is contested (Loughlin and Lindberg-Sand 2023). It is argued that large-class lectures in fixed-seat lecture halls encourage transmissive teacher-centric approaches to learning and teaching (Bourdieu et al. 1996; Schoepp 2019), which run against the declared values of student-centred approaches to learning and teaching embedded in national and European quality assurance (QA) policy (Loughlin, Lygo-Baker, and Lindberg-Sand 2021).

The dilemmas associated with large-class teaching are an international phenomenon and since the pandemic, Berkeley in North America ('Big Lectures "a Thing of the Past", Says Berkeley Chancellor' 2021), and a number of Australian universities have declared that they will drastically reduce or phase out large-class lectures from the curriculum ('Australian Universities Mull Dropping Face-to-Face Lectures Post-Pandemic' 2021). These cases are newsworthy because they are unusual, the norm for large-class teaching remains large auditoria.

To explore the apparent paradox of higher education institutions (HEIs) building large fixed-seat lecture halls which could undermine their commitment to student-centred learning, this empirical study examined educational strategy documents and conducted interviews with senior educational leaders representing sixteen UK universities.

Pro-Vice Chancellors for Education (PVCEs) form the nexus of outward facing declarations of pedagogical intent (policy) and its implementation within the university (practice). That is, they often write the institutional education strategy, and are (at least partly) responsible for guiding pedagogy and physical teaching space within their institutions. Hence, this research is comprised of twelve semi-structured interviews, primarily with PVCEs, or the equivalent in their institution. Between them, the interviewees have been involved in sixteen major

building projects (all of which feature large lecture theatres), and were able to offer privileged insight into the thinking behind the construction of the physical space in which we teach.

The connection between the physical university teaching spaces and the learning that takes place there is relatively unexplored in higher education research (Temple 2018; Leijon et al. 2022). The potential incongruity of HEIs producing literature and policies which advocate student-centred pedagogies while simultaneously building large-scale lecture theatres has not thus far been addressed in the literature.

The conceptual framework for the research is Argyris and Schön's *theory of action* (1992) which recognises that individuals and organisations can sometimes produce behaviour at odds with their declared values. Argyris and Schön's work on organisational behaviour suggests that individuals and organisations have *espoused theories*, which can be stated explicitly, and *theories-in-use* that must be inferred from actual behaviour. In the context of this study, it is the relationship between the institutionally espoused theories of approaches to learning and teaching, and the observed behaviour (in the construction of large-class lecture theatres) which are of interest.

Reflexive thematic analysis (RTA) is the analytic tool used to develop the resulting themes due to its flexibility in addressing both semantic and latent data (Braun and Clarke 2022). Three themes were developed as a result of the analysis: *Post-Pandemic & the Creation of the sticky campus; The Administrative Tail Wagging the Pedagogic Dog*; and *Pedagogy, Pragmatism, and The Student Experience*. The findings of this study suggest a remarkable lack of pedagogical intentionality for such high-value capital projects. Of the many rationales offered for the construction of these lecture theatres raised during the interviews, none involved a deliberate *educational* choice to teach in large lecture halls.

The research question below reflects the tension that can be seen developing between espoused educational values and physical infrastructure.

The Research Question

How do HEIs understand the intersection of the construction of large lecture theatres with their institutional and national policy commitment to student-centred learning pedagogies?

A brief literature review is followed by the methodology, analysis, and discussion.

Physical Space and Student Learning

From the 1990s, efforts to harmonise standards across Europe and embed student-centred approaches into learning and teaching were formalised in the Bologna Accord and thereafter quality assurance processes (Loughlin, Lygo-Baker, and Lindberg-Sand 2021).

It is not the purpose of this article to argue for student-centred approaches to learning and teaching. However, central to the issue of whether HEIs espoused educational values match their practice, is the extent to which large, fixed-seat lecture halls impede student-centred pedagogies.

There was a flurry of research into learning spaces during the 2010s when active learning was a popular topic of study, there has been little since, and none explicitly focused on large-class lecture halls. In their recent systematic review Leijon *et al.* found that learning spaces were under-researched and under-theorised. They conclude that:

> ‘Most research is on relations between design, learning activities and learning results. Space cannot be isolated as a single cause to positive learning outcomes, but people, space, interaction and learning are intertwined. Closely connected is the theme on how space is perceived by teachers and students. Perception of space is emotional but also intertwined with the pedagogy used in the space’ (2022, 15).

Ascribing academic outcomes to particular physical teaching environments is all but impossible (Temple 2018). However, the physical design and layout of learning spaces have been shown to have an influence on approaches to learning and teaching by staff in higher education (Temple 2008). Trowler (2019) argues that lecturers' attitudes to teaching, influence students' approaches to learning. That is, teacher-centred/transmissive approaches are associated with surface approaches to learning by students, whereas student-centred teaching is associated with deep approaches. Bourdieu argues that so 'rigorously does the physical situation [of large lecture halls] govern the behaviour of both students and lecturers that attempts to establish dialogue between them quickly degenerate into fiction or farce' (1996, 11). Therefore, while by no means direct, the physical space seems likely to influence learning and teaching by affecting the pedagogical approaches adopted by staff, and as a result of that, the approaches to learning by students.

It should be noted that, even in large teaching spaces, teaching practice varies widely, with many examples of student-centred teaching taking place in them; famously, Harvard physics Professor Eric Mazur pioneered *Peer Instruction* in a large fixed-seat lecture theatre (Crouch and Mazur 2001). 'Many faculty have been arguing forcefully for a changed way of teaching, swimming against the tide for decades. They have seen active learning succeed in their traditional classrooms, despite its awkward fit. They have made do, and they have made active learning work' (Baepler et al. 2023). Nonetheless, the balance of the literature suggests that a great deal of transmissive, teacher-centric practice continues to take place in large lecture-theatres (e.g., Gynnild et al. 2021; Loughlin and Lindberg-Sand 2023; Schoepp 2019). After more than a decade of researching active learning classrooms (when compared with traditional lectures), Baepler et al. declare that: 'ALCs have an independent and statistically

significant positive impact on student learning as measured by grades. We could confidently conclude that space indeed matters to learning' (2023, 6).

They also found that the physical space impacted the behaviours of staff (by encouraging them to adopt active learning approaches) and students (as a result of changes in staff behaviour), resulting in improved student outcomes. A finding echoed across disciplines (Kozanitis and Nenciovici 2023; Deslauriers et al. 2019). Brooks and Solheim (2014) claimed that flexible learning classrooms increased student engagement and motivation. Park & Choi (2014) observed that active learning spaces eradicated some of the inequities experienced by academically weaker students, who tended to 'hide' in large 'traditional' spaces. They also contend that the choice of classroom design conveys the educational philosophy of the institution.

The educational philosophy of institutions is often difficult to pin down. Sweeping statements of 'research informed teaching' and 'active learning' in the corporate literature mask countless pedagogic approaches within and between disciplines. In large and diverse university settings, the educational culture tends to reside more locally within disciplines and departments (Roxå and Mårtensson 2009; Trowler 2019). The theory of action (described below) will be used to assess the extent to which the universities in this study implement their espoused theories of education.

Theoretical Framework: The Theory of Action

In terms of assessing whether universities actually practice the educational philosophy of their literature, Argyris and Schön (1999) have a *theory of action*; a theoretical framework that distinguishes between *espoused theory* (what people/organisations say they do) and *theory-in-use* (what people/organisations actually do). The framework was designed to better understand how organisations produce behaviour sometimes at odds with its own values.

Espoused theories represent the ideals, values, and norms that individuals or organisations profess to adhere to. In an organisational context, espoused theories are often found in official documents, mission statements, policies, and the verbal explanations given by members when they describe their actions to others.

Theory-in-use represents the theory actually used by the individual or organisation, discernible (only) from observable actions. It consists of a number of core concepts which help to explain how and why organisations behave the way they do; particularly when it leads to outcomes at odds with their espoused values:

- **Governing Variables:** Governing variables are described as the values which the actors strive to satisfice. They may be tacit and derivable only from observable behaviour. These values have acceptable limits, which the actors will go to extraordinary lengths to sustain, in order to avoid questioning the governing variable itself.
- **Model I and Model II:** Model I behaviour involves organisations making adjustments within existing frameworks (without questioning underlying assumptions) and goals (governing variables); while Model II behaviour is more transformative, and involves questioning and altering the governing variables and policies themselves, leading to more significant change.
- **Defensive routines and the undiscussable:** Organisations develop *defensive routines* that prevent embarrassment or threat, making it hard to identify the causes of problems. Argyris (1999) identifies the defensive and protective behaviours that individuals and groups exhibit in organisations, such as blaming, avoiding feedback, rationalising, and concealing information - defensive routines and actions maintain the status quo. Linked to defensive routines are issues which become *undiscussable*

within the organisation. This perpetuates a culture where problems are not openly discussed or resolved, hindering organisational growth and learning.

Fear of failure or embarrassment can lead to a 'doom loop', where mistakes become undiscussable, they are then repeated, generating negative outcomes, which in turn, become undiscussable. The theory of action is designed to surface how organisational culture and procedures enact defensive reasoning that counters the espoused values and objectives of the organisation.

The analysis and theme generation are informed by aspects of Argyris and Schön's framework of theory in action, and the themes explored more fully in relation to the framework in the general discussion. These follow the methodology.

Methodology

This study utilised qualitative semi-structured interviews to explore the perspectives of (primarily) pro-vice chancellors on what they felt were the pressures, constraints and opportunities leading universities to build large lecture theatres. A total of nine pro-vice chancellors from universities across the UK were interviewed (quotes labelled pvc#), one vice chancellor (also labelled pvc#, to preserve anonymity) and two chief operating officers (labelled coo#). Participants were initially identified through purposive and snowball sampling based on their seniority and experience of university infrastructure projects- i.e., they were all involved in projects which included large, fixed-seat lecture theatres. Potential participants were contacted via email to take part in the study. Between them, the PVCs were involved in projects across sixteen UK universities. The institutions involved ranged from, elite (1), to Russell Group (5), to mid-ranking (8) and included two from the lower reaches of the league tables.

The interview protocol consisted of open-ended questions allowing participants to describe their experiences and perspectives related to large lecture theatre construction. Questions probed the various factors institutions considered during the infrastructure decision process; the tensions between competing demands, how they balanced different stakeholder needs and how much influence they felt they had in the process. Informed participant consent was obtained prior to data collection, the interviews were recorded and transcribed verbatim. The study obtained ethical approval from two UK universities prior to data collection.

Transcripts were analysed in NVivo using RTA, following the guidelines outlined by Braun and Clarke (2022). RTA was chosen for this study because of the flexibility offered, in that both inductive and deductive approaches were taken, and semantic and latent codes considered. The analysis aimed to inductively identify patterns and meanings related to the research question, and then consider those in relation to Argyris and Schön's organisational learning theory. After a close reading of transcripts, to become familiar with the data, initial codes were generated to capture elemental concepts, these included such things as, form verses function, drivers for change, and agency. It became clear from the codes that pedagogy was not a driving force in the decision to build lecture theatres; therefore, the collated codes were then refined into potential themes which offered explanations for their construction. Themes were reviewed for coherence and distilled to identify essence and scope. Three final themes were developed: *Post-Pandemic & the Creation of the sticky campus; The Administrative Tail Wagging the Pedagogic Dog*; and *Pedagogy, Pragmatism, and The Student Experience*.

In order to better understand the espoused educational values of the organisations included in the study, a short textual analysis (Weber 1990) of the educational strategy documents of all sixteen institutions being discussed was conducted in NVivo. Firstly, twenty-five

representative educational strategy documents were selected from an internet search, and a list of words compiled that described their approaches to learning and teaching. The educational strategy documents from the sixteen institutions being discussed were then searched for the same terms and those results shown in Table 1.

Post-pandemic context

To provide some context for UK higher education estates planning, at the time of the influential Robbin's Report (1963), which recommended rapid and significant expansion of higher education, there were 118,000 students in 18 universities. That number has since risen consistently, and currently stands at around 2,000,000 students in 160 universities. Many of the post-Robbins institutions had/have buildings dating from the 1960s and 1970s, and many of these are reaching end-of-life, adding to the pressure on teaching space. All the universities represented in this study reported increasing student numbers as a major driver of estates planning.

Since the pandemic many HEIs have reported issues with attendance at lectures (Williams 2022). While not the primary focus of this study, any discussion of university lecture theatres inevitably encompasses student attendance. Historically, attendance at lectures has ebbed and flowed (Lindberg 2017). The last decade (or more) has seen declining attendance rates at lectures, possibly influenced by such things as: the ready availability of lecture recordings and lecture slides (Otte 2024). Additionally, many more students now have external demands on their time, such as, jobs and family commitments (Grove 2024). The pandemic appears to have accelerated the decline in attendance with academics regularly posting pictures on social media of completely empty lecture theatres (e.g., Olusoga 2022). The post-pandemic volatility of student attendance has resulted in some of the building projects discussed (that were in the design phase), being reimagined, postponed, and in one case, cancelled.

The institutions represented in this study ranged from amongst the wealthiest to amongst the poorest, and financing these buildings varied accordingly. For the elite and Russell Group universities (the more prestigious institutions), decisions tended to be planned, and budgeted for, often years in advance; for those further down the order, buildings were replaced as they 'became tired', reached end-of-life, and in two cases the buildings being replaced/refurbished were condemned as unsafe.

After many years of continuous growth in student numbers, there is some evidence of the trend flattening off, or even reversing (MacGregor 2023). However, the burden of falling student numbers will not be shared equally. Elite and Russell Group Universities continue to expand while those further down the league tables will compete for a smaller pool of students (having already committed resources on the basis of increasing student numbers). The capricious nature of recruitment makes large capital investment particularly challenging for these universities. One UK university faced a '£30 million financial deficit in 2023 due to its extensive investment in expanding the campus despite decreasing student numbers and increasing costs' (Khoo et al. 2024), and many more are in similar financial difficulties (Wood 2024).

Results and Themes

The issue of espoused educational values are addressed in an analysis of the educational strategy documents, these results are followed by the themes.

Espoused educational values

A word search was conducted on the educational strategy documents for the institutions under discussion and the results shown in table 1 below. The brackets indicate the context in which the words were used, and variants of the search term which were counted.

Table 1: Frequency of terms describing approaches to learning

Search Term	**Number of References in (16) Institutional educational Strategy Documents**
Lecture Theatre(s)	0
Lecture(s)	1
Blended (Learning)	13
Peer (Learning)	2
Active (Learning)	27
Collaborative (Learning)	12
Innovative (Teaching/Learning)	110
Transformative Learning	14
Social Learning	2
(Teaching) Excellence	122
Research/Evidence Informed (Learning and/or Teaching)	22

As can be seen, across the educational strategy documents of all sixteen institutions being discussed, there are many references to student-centred approaches to learning and teaching and only one reference to lectures. Three randomly chosen education strategies from an internet search (to preserve anonymity) contained the following descriptions of teaching: 1) 'evidence-based innovation in education'; 2) 'evidence-based innovative practice; and 3) 'Experiential, active and discursive modes of delivery on all courses'; none mentioned lectures. More formally, from an institutional perspective in UK and European higher

education, the quality assurance processes are designed to guarantee student-centred approaches (Loughlin, Lygo-Baker, and Lindberg-Sand 2021).

These results demonstrate an espoused approach to learning and teaching of student-centred pedagogies; they are considered further in the themes and general discussion which follow. The first theme further develops the context for the institutions discussed in this study. The term 'sticky campus' appeared in the early 2010s and refers to the concept of creating an attractive and engaging environment on campus that encourages students to stay on site, even when they do not have classes. Strategies have included improving campus amenities, offering more on-campus activities and events, enhancing learning spaces, and providing resources and services that meet the needs of students (Harrop and Turpin 2013).

Theme: Post-Pandemic & the Creation of the Sticky Campus

Although the interviews in this study were framed around large, fixed-seat lecture halls, the lingering effect of the pandemic has had an enormous impact on universities (Griffiths and Dickinson 2024), particularly on attendance (Basken 2023). This theme developed because the interviewees repeatedly rationalised decisions based upon post-pandemic behaviours in students, and the perceived *necessity* to create a vibrant campus atmosphere to lure them back; re-asserting their status as 'face-to-face' institutions, and promoting the campus experience with a renewed vigour.

> "Actually, the way we've positioned ourselves […] very clearly, this academic year [is that] we are a campus university, and we are primarily a face-to-face provider of education." (pvc#3)

Creating a sticky campus, and particularly social learning spaces, were mentioned by most of the interviewees, often without differentiation from formal teaching spaces. These spaces have until recently occupied previously unused corridors or corners of buildings, but are now

a deliberate part of any design considerations, and compete for space with formal teaching spaces and lecture theatres:

> "That was a big thing at [my previous institution]. It's a big thing here too […] you don't just walk out of a lecture into the rain […] How do you enable them to when they come out of the lectures to do that peer learning nearby in a convenient way. […] It really is an extension of that learning process." (pvc#12)

An integral part of the sticky campus approach is to encourage students to attend in-person lectures. One PVC noted that as the result of positive experiences of online lectures during the pandemic, some academics had chosen to deliver all their lectures online *only*, and that senior management were "not thrilled about that, as we're an in-person university" (pvc#12). There are many motivations for wanting students to be on campus, including the sense of community that should develop (and happens to be one of the UK National Student Survey (NSS) criteria) along with social learning opportunities and a better overall student experience.

However, the impression given by some interviewees (from the lower end of the league tables), was that the threat now posed by stalling student recruitment and a lack of engagement with students on campus (including falling physical attendance at lectures) was in danger of becoming existential: "there's no future for this university without being campus-based" (pvc#11). With overall student numbers declining slightly, the burden falls disproportionately on those institutions that can least afford it. If you define yourself as a campus-based university and cannot rely on the reputation of your institution to bolster numbers, the inability to attract students to campus could be a precursor to financial failure. It is this sense of urgency that comes through when the PVCs talked of increasing student attendance at in-person lectures: "engagement in some disciplines and attendance has been

atrocious. I mean, atrocious!" (pvc#3). There was little mention of any educational benefit of attending in-person lectures (from any PVC), other than 'social learning' which would obviously exist with most types of in-person teaching sessions. There was talk of attendance monitoring, incentives and compulsion: "students' needs some rules about attendance" (pvc#7); and yet there is little mention of creating engaging learning experiences, which have been shown to organically improve attendance rates (e.g., Hake 1998).

Theme: The Administrative Tail Wagging the Pedagogic Dog

One of the early questions in the interviews was 'how did the idea of a new lecture theatre become an agenda item for senior management?' In most cases it originated from the administrative/support departments of Timetabling, or Estates. (Timetabling is the department which is responsible for allocating rooms to academic staff for their teaching and publishing the resulting timetable for students).

Commissioning a large graduation/events space was common, although in *every* case they were absorbed into the timetabling system and used for teaching. One PVC explained that "one of the consequences [of expansion from a] teaching point of view is that the Great Hall, which was designed as a concert space, ended up being primarily a teaching space. Because we didn't have anywhere else big enough" (pvc#8). The dual use as an entertainment/graduation/events space often compromises the design as a teaching space: "Yeah, we've just gone straight to fixed tiered. And that's because of the dual use […] it's not driven by pedagogy; it's driven by the need for the space to be used for […] concerts and dances and things like that" (pvc#2).

Those proposals originating from Timetabling (over half of the projects discussed) were entirely driven by increasing student numbers, and particularly the increasing cohort sizes. That is, the university had recruited bigger cohorts than could be accommodated in the

existing teaching space: “So, in fact it's just come up. In the timetable […] we can't quite fit some of our biggest classes now into the lecture theatres we've got” (pvc#4).

For Timetabling departments, the sum appears to be simple, if there are sufficient cohorts of a particular size, say 400, that cannot be accommodated in the existing estate, then a 400-seat lecture theatre is required. From that point there were two primary routes taken. One was where the project went to an infrastructure steering group, often headed by, or including, the PVC education. The other was that it went straight to the COO.

Those projects headed by the COO were described as largely ‘task and finish’ oriented, with minimal academic consultation: “I went to probably, six or seven project meetings [and the COO] managed it very tightly, [they] didn't allow us to speak” (pvc#9).

Those governed by a steering group tended to invite more views and discussion on the type of teaching space that should be created:

> “It is very much a live debate, absolutely […] I mean the bigger camp is the traditional camp I would say, because it's easier to do what you've always done […] a fairly common outcome is that, you know, you replicate what you've done before. If you grow your student numbers by 20%, you want a 20% bigger room of exactly the same type you had before. And so that's where a lot of the conversations start” (pvc#12).

This idea of replicating ‘traditional’ spaces (but bigger) was pervasive; however, the educational implications of this remained largely unexamined. While every PVC mentioned having a discussion around “whether large lectures are the future” (pvc#1); most came to a similar conclusion: “We had that discussion […] of course, because we were going to invest [£10s of millions] we felt we would need [them] as far out as we could see” (pvc#7). The ‘traditional’ view of university teaching including large-class lectures was not seriously

challenged, and the discussions mentioned tended not to dwell on pedagogy. Thus, if the institutional commitments to student-centred learning appeared at all in these conversations, pragmatic and logistical 'needs' quickly came to dominate them.

The desire to avoid double teaching was a major consideration. However, one PVC saw the construction of more modest lecture halls as a way to drive pedagogical change, by curbing some of the huge cohorts consisting of many hundreds of students:

> "I never shy away from saying that I understand the problem that you're trying to solve is to avoid double teaching, but I don't think it's avoidable […] there are better ways of [teaching] you know, get rid of large modules […] don't create an operationalisation of the pedagogy where you require 950 students to be [in] the lecture. That's not a good experience" (pvc#9).

Some of the PVCs found it quite difficult to engage the senior management team with these building projects (other than as bold architectural statements to promote the institution). Many faculty/college deans seemed oddly indifferent to the types of teaching space being created, with designs being "nodded through" by senior management (coo#1). In his case, architects provided some options but there was, "not much input from the institution" (coo#1). As a result, the buildings, which won design awards and were well received at the time, turned out to be less useful five years further down the line. The COO at another institution experienced similar frustration with their architect's preference for form over function, saying that within a few years their award-winning building's inflexible layouts made them "unfit for purpose… [the spaces] didn't really work, because the teaching didn't match the space" (coo#2).

In many cases, the need of further large lecture theatres was raised by the timetabling department to resolve a logistical problem; in the absence of any strongly held views from

senior academics, the steps involved built seamlessly to make the final decision seem self-evident.

Two linked governing variables become evident within this theme, the need to avoid double teaching; and the need to balance the timetabling system for the largest cohorts. The default position of most institutions is that resources are made available to maintain those variables within acceptable limits: “It's still not acceptable to recruit students and not have enough capacity for them to do the thing they think they're coming to do” (pvc#7).

Theme: Pedagogy, Pragmatism, and the Student Experience

There are several strands that together highlight the tensions and trade-offs affecting the institutions approach to the student experience, and the balance of pedagogy verses pragmatism.

The PVCs comments suggested a genuine desire from every institution to provide an outstanding student experience. This tended to be quite high-level though, encompassing all aspects of the student journey, with learning and teaching only a small part of that journey; and lectures, an even smaller fraction of that: “in terms of […] what education at university is, it's a massive […] narrowing to think about the lecture” (pvc#11). Contact hours often seemed to be viewed as an opportunity for students to engage with faculty and each other; with the teaching that takes place during ‘in-person’ sessions being almost incidental: “the point of having large teaching spaces is, one, because you have to have enough capacity for the students […] and secondly, to give them those kind of convening opportunities where they all come together” (pvc#7).

All of the institutions involved in this study describe themselves as ‘research intensive’, and several PVCs mentioned that in their institutions, research was more highly valued than teaching: “education is never dominant at [this university]” (pvc#4). This has a number of

practical implications in terms of resource allocation and the priorities of academic staff: “the revamp of the teaching space was a hard-earned negotiation [the PVC Research wanted a] research lab” (pvc#9). It is also a reality which acts as a driver for delivering the most contact hours with the least amount of academics’ time.

All the PVCs in this study indicated that they aspired to student-centric teaching approaches and all the institutions provide a mix of teaching spaces including flat/flexible spaces designed to encourage interactive approaches. However, several acknowledged that the rise in massive cohorts was driving demand for large-fixed-seat lecture halls, which they were conflicted about: “We were frequently getting feedback through the timetabling system that we didn't have enough big lecture spaces […] There was a fairly systematic push back on that [to the deans] like a deliberate one to say, ‘are you really sure that's what you want?’ And every time we asked the question it came back. ‘Yes, we need more of these [large lecture theatres]’” (pvc#6).

> “I think probably everybody would love to move to lots of small group chitty chatty teaching. [Staff would] be with their student groups [and] get to know them […] How it used to be. [But it’s] just not feasible and we don't have the money to invest in […] the staff you'd need. So, the pragmatic decision is we [lecture], teaching is obviously cheap as chips. [Staff] are getting an in-person hour with a lot of [students] at once” (pvc#7).

Only two of the PVCs were actively adopting strategies to reduce large-class lectures through infrastructure design and policy measures. In other cases, there were occasionally deans or heads of schools who were advocating for student-centred approaches. However, most of the PVCs accepted large-class lectures as part of the educational landscape and concluded that: “lectures are fine as part of the mix” (pvc#7).

> "I think there's always this paradox or conflict that you run into with these discussions […] you know we're growing student numbers and the most effective and efficient way of delivering contact time to those students is through lectures […] irrespective of quality and how good that [lecturer] is." (pvc#1)

Here again, this view of education is pragmatic in the extreme; does it not matter how good the lectures are, so long as the students get their contact time? As Ashwin points out, 'measuring teaching quality by the number of teaching hours is like judging the quality of a novel by its number of pages' (2020, 52).

The main areas of concern for PVCs education are typically the NSS, TEF (UK government Teaching Excellence Framework) and resultant league tables. As neither the NSS or TEF capture or use metrics which discriminate between student- and teacher-centred approaches to learning and teaching, it is perhaps to be expected that the PVC's energies are directed towards those metrics that are measured such as student satisfaction, retention, attainment gaps, and employability.

"I think […] the student experience [is the] number one thing" (pvc#12). Yet, these aspirations for a good student experience were rarely linked directly to learning and teaching. Towards the end of each interview the participants were asked whether large lecture halls corresponded with their university's education strategy. After initially suggesting that their university had very few lectures, one went on to acknowledge a disconnect:

> "And so… we've got a bit of a contradiction, haven't we? Because in one sense, we've been saying to them 'You need to make the lecture more interactive' [but then putting them in large lecture theatres…] it's going to take me a couple of years to untangle that contradiction, I suspect" (pvc#4).

For others, an incongruence was less apparent:

> "From my perception […] we have very few lecture theatres. So, the whole [discussion about] lecture theatres [being] over [and] moving to [a] post-lecture theatres [education]. Well. We haven't got any anyway" (pvc#11).
>
> **Note:** excluding labs and specialist spaces, this particular institution has twenty-three large-class fixed-seat lecture theatres, which represent 25% of centrally managed teaching spaces (57% of seating capacity).

Both of these PVCs were/are unaware of the scale of large-class teaching that takes place in their own institutions which gives an indication of how teaching spaces feature within the institutional consciousness.

For some of the PVCs there was no contradiction, in their view they provide a mix of learning and teaching approaches, including some student-centred teaching, and the inclusion of large-class lectures is fine as part of their educational offering:

> "I think there are still skills that you learn from the lecture. You know about listening and […] concentration and capturing information and so on […] And a lot of my colleagues feel quite strongly about that" (pvc#4).

Revealingly, these arguments are not made in the education strategy, or in any other institutional documentation where they might be challenged. For example, none of the claims made here for transmissive lectures are supported by the literature (Bligh 1972; Loughlin and Lindberg-Sand 2023).

Academic freedom, and the somewhat amorphous lines of accountability in learning and teaching, means responsibility for enacting student-centred education within HEIs is often undefined. Hazy notions of student-centred learning are quickly swallowed up by the clear objectives and concrete outcomes of logistics and student satisfaction metrics.

The general discussion which follows further explores the themes and the theories-in-use that can be inferred from them.

Large-class teaching in (the Theory of) Action

The individual PVCs interviewed for this study varied widely in their views about the place of large class teaching within higher education; yet their institutions behaved in broadly the same way. Argyris and Schön's organisational theory suggests that behaviours can be described as *organisational* when 'individuals with different personalities behave in the same way; and people leave and new ones come into the organisation, yet the [behaviours] remain intact' (Argyris 1999, 141). Thus, this discussion considers espoused theories and theories-in-use in the *institutional* context of commissioning large-class fixed-seat lecture halls.

The espoused theories of approaches to learning and teaching for these HEIs are clearly student-centred. Teaching practice varies; yet, the available evidence suggests that teacher-centric transmissive teaching remains widespread (Schoepp 2019; Gynnild et al. 2021; Loughlin and Lindberg-Sand 2023), and is acknowledged by participants in this study: "There's […] also quite a lot of appetite […] for didactic teaching, and [large-class lectures are] a very efficient and effective way to do it " (pvc#3). The PVCs offered some rationalisations for the inclusion of transmissive lectures, however, these stemmed primarily from personal preference and assumption, rather than pedagogical theory or research; and again, they do not appear in *any* strategy documents. Therefore, the theory-in-use is (at least partially) teacher-centric. To what extent can the frequently observed theory-in-use of transmissive teacher-centred approaches be explained in terms of Argyris and Schön's framework?

Evidence which suggest Model I theory-in-use with, defensive routines and the undiscussable, might include: resistance to change; peer pressure; incongruous rewards

mechanisms; lack of robust and transparent policy evaluation; absence of policy discussion; abdication of responsibility, rationalisation, a sense of hopelessness, and denial (Argyris 1999). Many aspects of these can be seen in the themes which were developed in this study. The theme 'Post-Pandemic & the Creation of the Sticky Campus' highlights two important aspects of senior management thinking regarding infrastructure: 1) the normative status of large-class teaching, in that none of the PVCs separated out large-class lectures in their thinking from students being on campus; to an extent, the lectures were undiscussable (and invisible) even when asked about them directly; 2) it hints at the institutions educational philosophy (Park and Choi 2014), in that the most important aspect of student learning was considered to be the social learning that takes place with their peers outside of lectures. In this view of higher education, students assume responsibility for their own learning (David et al. 2024). It also assumes a student who is academically equipped to take responsibility for their own learning; and with the diversification which accompanies massification – that is not always the case: 'many students do not respond well to having the freedom to make these decisions' (Clark 2018, 992). More importantly, this expectation of students is not articulated anywhere, and specifically, not mentioned in any of the educational strategy documents.

The theme, 'The Administrative Tail Wagging the Pedagogic Dog' is an example of institutional logistics driving infrastructure decisions to produce (possibly) unintended consequences. A series of small incremental steps result in the construction of a multi-million pound large fixed-seat lecture theatre for which the institution has made no conscious educational choice. A core function of a higher education institution is learning and teaching, yet responsibility for creating the physical spaces in which the teaching takes place appears often vacated by senior academic management; left to administrators, support services and

architects. The designs “nodded through” by senior management (coo#1) affect the education of thousands of students for years to come.

The final theme ‘Pedagogy, Pragmatism, and the Student Experience’ focuses on the very real and difficult choices facing senior management. Only two PVCs were able to articulate the paradox of their espoused values and the theory-in-use of their teaching provision suggesting that for most, it has become undiscussable. Most institutions can point to where student-centred approaches take place, but ignore the substantial amounts of transmissive teaching that occurs in large-class lectures.

One example of the Model I behaviour exhibited is the fear amongst academics, reported by several PVCs, that if they provide lecture recordings, students will not attend: “and my colleagues will then start to demand that we make them” (pvc#4). In this case the governing variable is the sanctity of the lecture, and demanding students attend to maintain the status quo, rather than exploring alternative paradigms which might be more appealing or effective for students in their learning.

Attendance is an issue that cuts across the themes; the PVC’s claim that there is “strong demand” from students for lectures (pvc#12). Yet, there are many concerns about a lack of attendance at lectures within higher education; reports of embarrassingly small numbers are now commonplace (Basken 2023; Grove 2024). The reality of “academics […] sitting in a lecture theatre that holds 200 [with] 26 students” (pvc#3), does not seem to factor into the decisions to build additional large-class lecture halls. None of the PVC’s institutions collected data on attendance rates. Therefore, the incongruence of ‘strong demand’ and ‘atrocious’ attendance remains unexamined. The only discussion of poor attendance in the public domain is generated by individual academics highlighting personal experiences. HEIs make little attempt to understand how many students attend non-compulsory lectures, and

certainly do not engage in any public discussion on the topic. This minimises the risk of embarrassment, but also limits the prospect of providing a better educational experience for those students choosing not to attend lectures.

In the introduction to *Teaching for quality learning*, Biggs laments that with the massification of higher education came diversification and class sizes 'that seem to preclude any but the same methods of teaching and assessing that aren't working' (Biggs 1999, 2). And the argument for large class lectures is often made on economic grounds. However, 'the lecture method is not economic in terms of time or anything else, if it cannot achieve the required objectives, and this achievement is open to question' (Bligh 1972, 19).

This paper does not argue for the efficacy of student-centred, compared to teachers-centred approaches to learning and teaching. Instead, it explores the paradox of HEIs espoused theories of student-centric approaches to learning and teaching, and the institutional thinking which leads to the construction of vast fixed-seat lecture halls.

Most HEIs espoused theories of education and their theories-in use do not match. They cannot publicly discuss the educational and logistical issues associated with large-class lectures, because then they would have to acknowledge their existence, explain the paradox, and defend their inclusion in the curriculum. Large-class lectures then become undiscussable, and to a large extent hidden. And so, it would appear that, rather like an ill-fitting suit, the educational strategy documents of most institutions, 'fit where they touch'; that is, some innovative and research informed practice takes place, but very much more transmissive teacher-centred practice is undocumented and invisible.

Conclusion

The findings of this study underscore a surprising detachment from pedagogical intentionality in the decision-making processes concerning high-value capital projects such as large-class

lecture theatres. None of the rationales presented by interviewees for the construction of these spaces explicitly articulated a deliberate educational preference for large-class lectures. Instead, decisions appeared to be driven more by pragmatic considerations, including the need to accommodate increasing student numbers and the desire to enhance the campus experience, encapsulated in the 'sticky campus'.

Argyris and Schön's distinction between espoused theories and theories-in-use revealed the tacit assumptions that guide institutional behaviour, highlighting a gap between the pedagogical ideals that institutions profess and the teaching spaces they create.

This study contributes to the discourse on the alignment between higher education's physical infrastructure and its pedagogical commitments. Engaging more deeply with the pedagogical implications of physical space design could enable institutions to better align their infrastructure decisions with their educational strategies, fostering environments that genuinely support the learning experiences they claim to promote. Future research could further explore the impact of learning space design on pedagogical practices and student outcomes, offering insights into the complexities of aligning physical space and approaches to learning and teaching in an era of rapid change and financial precarity.

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