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Educational change and the social project of Innovative Learning Environments in Aotearoa New Zealand

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Abstract

The term 'Innovative Learning Environments' (ILEs) describes a body of work, associated with the Organisation for Economic Co-operation and Development (OECD), which has had substantial impact on many education systems. As with other 'learning environment' initiatives, a bundle of design suggestions, ideals and frameworks is put forward for the purpose of shaping educational change: in this case, in pursuit of '21st century learning'. Earlier scholarship on ILEs has investigated the achievement of outcomes, documented experiences in particular schools, and theorised issues viewed as particularly important for making ILEs 'work'. In the present chapter, by contrast, I trace how the overarching initiative has unfolded across an entire polity—Aotearoa New Zealand—where ILEs have had government support for a significant period of time. Treating the preceding chapters in this volume as expert submissions to a principled enquiry, I conceptualise 'ILEs in Aotearoa New Zealand' as a *social project*. I contrast points of commonality and difference between the official OECD 'international movement', the preceding history of learning environments in the country, the recruitment of existing schools by policy mandate, and how aspects of the ILE framework are subsequently institutionalised and localised. At each stage I consider the key predicaments being posed to stakeholders, the core concepts used to guide action, the ethos expressing how those concepts should be pursued 'correctly', the gradual sedimentation of artefacts and routines, how institutional engagement is framed and handled, and those aspects of stakeholders' lived experiences that propel ongoing development and change. I highlight, among other things, a significant conceptual fragmentation between changes in 'educational practice' and 'physical estate', the fraught development of a 'horizontally connected' ethos, and the increasing centrality of community relations and cultural values to the success of the project. I conclude by suggesting directions for further research on the topic.

Learning Environments and built pedagogy stereotypes

Consider the attention given to 'learning environments' in educational scholarship and policymaking, and you will quickly reach the conclusion that deliberation of the topic is both slippery and unpredictable. Part of the *slipperiness* derives from the fact that the underlying metaphor is promiscuous. Interfaces of digital platforms; socially supportive relationships offered by educational institutions; constellations of artefacts assembled by individuals to support their own development—all these and more have, at different times, been described as 'learning environments'. The alternative formulation of 'learning spaces' has, over time, been rendered no less ambiguous, encompassing as it does explorations of the digital, conceptual, and developmental.

Particularly divisive is the extent to which the environments or spaces of education are positioned as 'physical' (cf. Bligh, 2019b). Too often an issue neglected entirely, where physical space does receive recognition it can sometimes become *so* foregrounded on the policy terrain as to become resented by educational researchers and those practitioners working at the chalkface. Part of the *unpredictability*, on the other hand, arises because of how different aspects of the learning environment oscillate between the core and periphery of educationalists' attention at different times and in different places. The issue of 'physical space', for example, might get neglected in one decade and thrust to prominence in another; be seen as unaffordable at one moment and a vehicle for economic stimulus at the next; receive that stimulus investment in one region of world geography, or educational sector, while being starved of resources in another; here be regarded as peripheral to learning but there as crucial; and so on.

It has sometimes been seen as a matter of irony, against that backdrop, that an ongoing proliferation, across much of the globe, of digital technologies and cloud services has been accompanied by a renewed interest in educational environments and spaces conceived in *highly* 'physical' ways (Goodyear et al., 2018; Bligh, 2019b). The irony arises, of course, because it would certainly be possible to interpret the 'anytime, anywhere' discourses of a digitalising society as suggesting the abolition of physical classrooms or institutional campuses; yet these institutional environments have, on the contrary, received renewed attention (Crook & Bligh, 2016). One reason seems to be a conviction that place-based educational institutions can serve as an excellent vehicle for preparing students for the challenges of tomorrow's 'society'—a society conceived not only as digitalised but as mainly based around knowledge work. Yet, it is suggested, such potential will *only* be realised if those institutions can be reconfigured, in ways that allow them to escape their historic role of providing an education suited mainly to an industrial economy now seen as fast disappearing (Wright, 2018; Benade, 2019).

Such convictions—that 'learning environments' (a) are an important locus for educational change and (b) encompass important 'physical' aspects—typically lead to a focus on questions of *how* and *how much*. By what mechanisms do *learning spaces* affect, improve, enhance or support *learning*, and how do we know? It is often immediately necessary, when such questions are posed, to face down the siren call of spatial determinism—the search for what Goodyear (in press) calls "direct effects on learning and instruction". As I have remarked previously (Bligh, 2019a), certain powerful stakeholders persist in looking for "absolute or universal knowledge about learning spaces" (p.6). In doing so, those decision-makers get repeatedly frustrated by context and difference: the dissenting value systems of (other) stakeholders, different accounts of 'effectiveness', failed attempts to transplant designs from one place to another, or the difficulty of codifying locally generated knowledge into some "lessons learned" framework to guide more generalised action.

I have elsewhere suggested that, rather than looking for direct effects from replicable 'designs', it is likely more fruitful to understand particular educational spaces as mediators of particular educational practices (Bligh, 2019b). I mean to suggest an acceptance, in other words, that spaces sit between real educational actors and their actual objectives; and that the relationships between these different elements (actors, objectives, spaces) are myriad and emergent, rather than categorical, with space a vehicle for practice rather than a determiner of outcomes. I have also suggested a range of recurring *ways* in which particular spaces, or ecologies of spaces, might mediate the concrete objectives of some particular educational practice (Bligh & Crook, 2017; Bligh, 2019b). To consider just a few examples, particular spaces might facilitate particular kinds of action while obstructing others (an 'enabling' mediation), invoke cultural references that invite specific feelings and behavioural norms (an 'associative' mediation), or accommodate the rhythms of a

community's practice and thereby, perhaps, invite a relation of 'ownership' (a 'socially integrative' mediation).

Yet such a particularised view remains marginalised in institutional decision-making; in the real world of governmental policy, funding landscapes, institutional decision-making, and stakeholder discussion, detailed consideration of particular spaces, on a case-by-case basis, is often positioned as an unwarranted luxury. Instead, wide-ranging initiatives of *change* in institutional environments are often mobilised via the discursive power attached to what might be called *built pedagogy*: attempts to embody particular constellations of educational and/or societal values in architectural stereotypes (Bligh, 2019b).

Such built pedagogy stereotypes are platforms for change that seek to circumvent the continued absence of absolute or universal knowledge about spaces themselves: instantiate those stereotypes in a given location, it is claimed, and you will also import a range of (desirable) practices and thereby achieve some (also desirable) outcomes. The stereotypes themselves operate at quite disparate levels of granularity: with some focussing on rooms (e.g., 'flexible learning spaces'; Goodyear, in press), some on buildings (e.g., 'Learning Commons') and some on whole institutions (e.g., 'Innovative Learning Environments', the topic of the present volume). Such examples—being promiscuous metaphors for uneasy constellations of practices, technologies, and spatial designs, which oscillate in and out of the attention of senior policymakers—remain slippery and unpredictable in exactly the senses explained above. Yet their 'bundled' nature, and their infusion with a strong sense of moral imperative, renders these stereotypes both attractive to policymakers pursuing change and highly visible to practitioners, in ways that the existing scholarly literature often fails to grasp and that I wish to highlight in the present work.

Innovative Learning Environments

Innovative Learning Environments (henceforth, 'ILEs') have been defined, as elaborated throughout the rest of this chapter, in various ways. But, at heart, they are an attempt to reshape educational institutions into something better suited for the needs of what is labelled '21st century learning' (Wright, 2018). ILEs are an important object of study if we wish to understand change in learning environments, because the underlying model has been formulated within development programmes of the Organisation for Economic Co-operation and Development (OECD) and, in the wake of extensive backing from that organisation, has been adopted in varying ways across many polities (OECD, 2017). The model, however, should not be understood as static and unchanging. Indeed, it is explicitly acknowledged, within OECD reports, that the "vision" of the ILE is something that stakeholders are supposed to engage with, own and further develop as part of the process of change (OECD, 2013). The current volume provides an outstanding overview of how that vision has been instantiated (engaged with, owned, and further developed) in many institutions across Aotearoa New Zealand—a polity in which ILEs have been taken seriously by both government and school stakeholders for a considerable period of time.

What we might call the core ILE mission is one of systemic educational change. In the core OECD documentation (cf. OECD, 2013, pp.11-13), emphasis is placed on educational institutions (1) fostering new relationships between learners, educators, content and resources; (2) combining visionary educational leadership with ongoing professional development; (3) developing extensive partnerships between educational institutions and outside bodies; (4) implementing "innovative learning principles"; and (5) exploiting outside "pumps" of knowledge innovation in their geographical region, especially from industrial sectors such as technology and scientific research and development. Yet ILEs are also a packaged 'bundle', whose elements include, among other things,

physical spaces, pedagogical change imperatives, guiding visions of future employment, and access to advanced technologies. The following description of ILEs, for example, highlights how such elements are often seen as intertwined when they are manifest in school institutions:

> Innovative learning environments (ILEs) are a shift away from cellular arrangements of learning and teaching where one teacher holds pedagogical responsibility for a class of children (25–35 individuals) in one classroom to multiple teachers (between 2 and 4) taking shared responsibility for larger and more flexible groupings of students (90–120) within spaces designed as open and adaptable "learning hubs." These spaces differ from conventional schooling arrangements and are predicated on the assumption that traditional school design favors conventional visions of teaching and learning, which do not adequately prepare students for twenty-first-century work. What is required instead is student-centered, inquiry-based, and technology-integrated learning within physical spaces flexible enough to support this personalized approach. (Nelson, 2019, p.1)

ILEs, then, are a form of 'learning environment' stereotype, highly visible in policy terms and with many real examples of implementation across the globe (e.g., OECD, 2017). Unsurprisingly, therefore, there is an emergent but rapidly growing field of academic scholarship on the topic, which offers a range of valuable insights that can provide a starting point for understanding how 'organisational change', 'learning environments' and 'physical spaces' are seen as intertwined and re-shaping educational practices together.

One strand of ILE research searches for evidence that the desired outcomes are actually achieved. The quasi-experimental work of Byers, Imms and Hartnell-Young (2018), for example, suggests that ILEs do have a discernible impact on student attitudes to their learning experiences, engagement and academic outcomes. Notwithstanding that, as Byers et al. freely acknowledge, it can be dangerous to generalise simplistically from such findings, this strand of scholarship serves an important legitimating role for systemic change initiatives that are, after all, costly in terms of human effort and financing. It also reinforces the strong sense of purpose at the heart of the ILE enterprise.

Another strand of scholarship seeks to understand how ILEs are instantiated at an institutional level. Such work, which Imms, Cleveland and Fisher (2016) call a "snapshot" approach, involves positioning knowledge about particular ILE settings as emergent, tentative and gradually unfolding, and thus typically prioritises holistic, longitudinal exploration undertaken with reference to the insights of disparate stakeholders. One particularly detailed 'snapshot' is provided by Wright (2018), whose work examines how a particular school in Aotearoa New Zealand engaged in a protracted effort at *becoming* an ILE over several years. While any focus on a particular institution inevitably occludes a range of issues concerned with ongoing change, contestation and institutional power across wider ILE *initiatives*—which, as highlighted above, might be operating as governmental programmes across a polity—such work laudably takes contextual situation and ongoing development very seriously. This strand of scholarship is particularly valuable in emphasising the need to take an integrated view of institutions and the protracted struggles that are necessary there when undertaking, over time, what are typically very ambitious visions for change.

A third strand of investigation, meanwhile, seeks to disaggregate how ILEs work (or should work) in practice, and does so by focussing on a range of particular issues positioned as having great import. Examples of such scholarship focus on relationships between ILE initiatives and initial teacher education (Nelson, 2019), the development of learner agency (Charteris, 2019), and school design processes (Liu, 2018). Such a prismic separation of issues, of course, comes with risks: especially

those of conceptual dispersal and of obscuring how the highlighted issues must necessarily interlock within actual ILEs. Yet such scholarship makes a valuable contribution, since theorising these issues promises insights into nurturing the ongoing development of historically embedded values and practices, which will be so necessary for fostering the deep level of cultural change required in ILE initiatives.

The present chapter, however, sets out to contribute a kind of analysis that has been relatively unusual in this literature: an understanding of how the stereotype of 'Innovative Learning Environments' has served as a vehicle for systemic change in many educational institutions when adopted across a polity, and how the associated vision has been engaged with, owned, and further developed as that change has unfolded. The privileged opportunity for me to do so has arisen from an invitation by the editors of the present volume to "summarise" and "signpost" the preceding chapters, which collectively present an important account of ILEs and their development across Aotearoa New Zealand. That collective account, which I attempt to engage with in what follows, encompass extensive engagement with issues such as how practice and theory have jointly developed within educational change initiatives, the implications for different aspects of educational leadership and practice, the ongoing centrality of contextual and sociocultural factors, how to account for what considerations (and which voices) are being included and excluded, and the framing of pedagogy as an interlocking set of partnerships. Particularly valuable is the deep engagement with ILE initiatives *across the polity* of Aotearoa New Zealand which has, as already established, engaged extensively with the idea of ILEs for some time. By "summarising" and "signposting" such a rich seam of materials, it is my hope, I can illustrate how the strong sense of purpose, struggles for change by institutional stakeholders, and different conceptualisations—both of the 'learning environment' and of important but more particular educational issues—have become intertwined and developed together over a period of several years.

Adopting the lens of 'social project'

My approach, in what follows, will involve presenting a narrative arising from a *principled enquiry*, in which the preceding chapters are positioned as submissions emphasising aspects of a whole whose overarching contours I wish to trace. By using the term *enquiry* I mean to signpost underlying assumptions (a) that each textual submission represents the considered position of those with significant expertise—the authors of the preceding chapters each have much more insight into their own topics than I do—but (b) that it will be valuable to disaggregate particular aspects of these accounts and reassemble them into an overarching synthesis. Labelling the enquiry as *principled*, on the other hand, denotes that I will use a definite framework to support that process of disaggregation and reassembly.

The framework I use will involve conceptualising ILEs as a 'social project', a concept I derive from the tradition of activity theory, and in particular from the work of Andy Blunden (2010; 2014). Activity theory is a mature social theory used across many fields of scholarship (Engeström, 1999; Kaptelinin & Nardi, 2006). It is, moreover, often used in research on educational settings, where it is typically valued for how it helps researchers locate a phenomenon in its sociocultural context, grasp complex and dynamic situations, and understand change and development over time (Bligh & Flood, 2017). Perhaps the most fundamental tenets of activity theory are that human subjects' *activity* (sustained, collective effort) needs to be distinguished from their *actions* (time-bound pursuit of definite goals); that activities are regulated by the objectives (often problematic) towards which they are oriented; that activity and actions are mediated by artefacts that sit between subjects and their objects (or goals) in tripartite relationships; that particular activities emerge from social, cultural and historical

precedents; and that those activities continue to develop over time as subjects, in attempting to enact the activity in their actions, experience and respond to the structural problems they encounter.

The concept of 'social project' is intended as a unit of analysis for *activity* (rather than action) within activity theory, meaning, in other words, that human activity can be seen as divided up into a number of social projects. Blunden (2010; 2014), who also uses alternative formulations such as 'project' and 'collaborative project', sees social projects as arising when two or more people come together to address a constraint on their freedom arising from their position within existing social relations. Social projects persist for highly varied amounts of time, with some failing to establish themselves within the social formation in any meaningful way. Those that *do* persist *develop immanently* (according to an internal logic) through a various *stages of development* (periods of uneasy stability punctuated by ruptural change) into *institutions* that come to form part of the social relations. The social backdrop against which other social projects are formed, then, is the aggregation of those institutions developed by prior social projects.

Blunden's full conception of social projects—having been developed out of a Hegelian re-interpretation of activity theory, undertaken for the purposes of rendering the theory better suited for intervening in interdisciplinary debates across broad swathes of academia and activism—is complex and has manifold implications. Yet, as I initially read the preceding chapters, I came intuitively to adopt the position that a social project of considerable scale and complexity was underway *across* many educational institutions in Aotearoa New Zealand; different aspects of which were being highlighted in the different chapters. I therefore decided to develop, based on my own exegesis of Blunden's work (but especially Blunden, 2014), an instantiation of 'social project' as a conceptual framework suited to this enquiry—a framework which, I hoped, would be rich enough to mediate my disaggregation and reassembly of the 'submissions', while also being sufficiently abbreviated to be manageable.

That instantiation emphasises six main aspects of social projects, which will furnish a structure for my narrative in the subsequent sections and can be labelled as follows:

- *Predicament*: how constraints on freedom within a social structure are *posed* to the social project at a given stage in its development. Subjects each feel and understand problems in their own ways, but also accept, to differing extents, that by participating in a social project they are confronting those problems in ways understood and conceived across that project.
- *Concept*: a common purpose towards which a system of actions is to be oriented. Concepts disclose the ideals and motivation inherent in the project and suggest overarching strategies for confronting predicaments. Over time concepts usually come to develop a variety of names, official definitions and tacit meanings, but they are not *reducible* to linguistic phrases or psychological constructs. Concepts within social projects are collectively developed, explored and contested.
- *Ethos*: a set of ethics mediating between the concept of the project and the actions undertaken. Projects develop ethics as attempts to promote 'correct' conduct, with such 'correctness' developing in relation to dominant concepts. The ethos of a social project serves to help subjects to choose and evaluate their actions; it typically incorporates direct exhortations to pursue a concept, indirect mechanisms to regulate actions (via recognition or incentive), and propagated ethics incorporated from other projects within the broader social formation.

- *Sedimentation*: the production or appropriation of mediating artefacts that each 'objectify' elements of the concept or ethos of the project. Sedimented artefacts are used within projects to pursue action; among other things, they may describe routines or constrain how action unfolds.
- *Engagement with institutions*: unfolding relations with other social projects within the social formation (which appear, from the standpoint of this project, as 'institutions'). Social projects seek, as the preceding aspects of the framework highlight, to address the predicaments that confront them by developing concepts and projecting them into the social formation. Since the social formation is comprised of other social projects, doing so means pursuing change *with* and *through* other institutions. Yet those other institutions are also dynamic and have their own logics, and so a variety of relations between social projects can be developed, of vastly differing degrees of desirability (Blunden discusses examples of engagement such as exchange, command, colonisation and solidarity).
- *Lived experience*: the process of encountering and confronting crises as the social project is enacted. Such crises are experienced by subjects who participate in the social project, and may arise within the project or its relationships of engagement to other institutions. Blunden emphasises that crises can be manifest very differently, depending on the locus from which they arise and the extent of their implications. For present purposes, I shall emphasise merely that, in confronting and seeking to overcome such crises, subjects reshape both the social project and the predicaments it confronts, often in unpredicted ways.

In what follows, I shall attempt to map the contours of 'Innovative Learning Environments in Aotearoa New Zealand' as a social project. Doing so will involve tracing, at different stages, the key predicaments being confronted, the core concepts being pursued, the ethos guiding action, the sedimented artefacts used in the project, how the social project engages with other institutions, and the lived experiences driving ongoing change and development. Based on my reading of the preceding chapters, it seems to me that there are four stages of development that need to be considered. Latterly, I shall engage, in turn, with the *history* of learning environments in Aotearoa New Zealand, thereby disclosing the sociocultural precedents on which the social project seeks to build; the deliberate *introduction* of ILEs into the polity's educational system; and the experience of *institutionalising* ILEs over time to adapt to the realities of the social formation. Each of those topics receives considerable attention in the preceding chapters, and is sufficiently different from the others to be positioned as a 'stage of development'. Before examining those stages, however, I first need to consider how the *international* social project of ILEs, as posed by organisations like the OECD, was conceived in the preceding chapters. As we shall see, it is that conception and its prestige as an 'international movement' that shaped the action taken subsequently.

The 'international movement' of Innovative Learning Environments

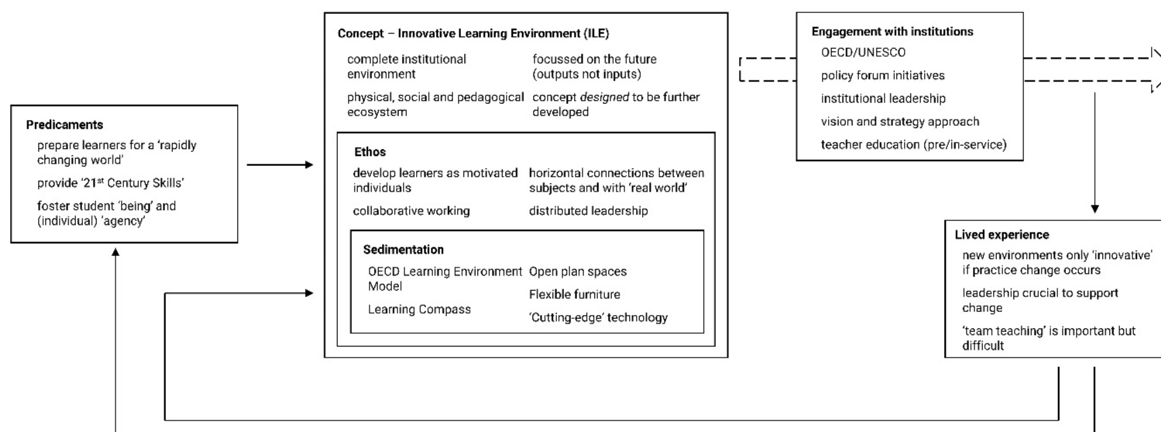

Figure 1: The 'international movement' of Innovative Learning Environments as a social project

Figure 1 provides a graphical overview of the extensive programme of work carried out under the aegis of the OECD, over a number of years, and given the name 'Innovative Learning Environments'. The figure, an outcome of my process of disaggregating the preceding chapters and reassembling a narrative synthesis, introduces a format that I shall reprise again in subsequent sections. Importantly, the figure provides an overview from the standpoint of the submissions in this book, and does not represent how ILE priorities might be conceived in other settings or by OECD decision-makers. That is a particularly important point because, as we shall see subsequently, *how ILEs were presented to and understood by* stakeholders in Aotearoa New Zealand had a large impact on the idea when it was introduced there.

Figure 1, in short, portrays a social project mobilised to confront several predicaments, such as a need to prepare learners for a 'rapidly changing world'. The ILE project comprises some core concepts, including "Innovative Learning Environment" itself; an ethos used to pursue those concepts, such as imperatives for horizontal connectedness and distributed leadership; and a collection of sedimented artefacts to be used to guide action—including an OECD 'Learning Environment Model' and the invocation of particular digital technologies. The project attempts to change the social formation with and through other institutions: engaging with senior policymakers via the OECD and UNESCO, and striving to ensure that relevant concepts are cascaded downwards via institutional leaders and teacher education initiatives. Lived experience is, over time, highlighting the centrality, for embedding the core concepts in the wider social formation, of 'practice change' strategies, school leadership and team teaching. Attempts to respond to such experiences will likely, over time, lead to development in how the predicaments are posed and in the formulation of the project itself.

Several aspects of this social project will be consequential in the subsequent account, and need to be highlighted in particular.

Predicaments

It should be immediately obvious that the *predicaments* are posed in global and somewhat inexorable terms. Cooper (Ch3) provides a valuable overview of the "strategic directions" associated with ILEs, which emphasises "global" and "worldwide" educational policy responses to 21st century economic changes, with reference to examples from several polities. The OECD, in particular, is

positioned as an institutional actor with extensive expertise in addressing such challenges; Falloon (Ch13), for example, emphasises its decades-long focus on developing better understanding of changing educational 'competencies'.

Additionally, there are extensive references to issues of 'being' and 'agency'. Cooper (Ch3) usefully highlights the mobilisation of arguments that education is increasingly seen as concerned with developing who students "should be", for example, while Charteris and Smardon (Ch4) emphasise the centrality of agency in relation to proactive engagement in educational decision-making. The notion of '21st Century Skills', a concept arising from a neighbouring social project with much influence on ILEs, also reflects these priorities. Cooper (Ch4) emphasises, for example, that visions of '21st century learning' see particular dimensions, such as knowledge, skills, and character, embedded within a framework of "meta-learning", in which people "embrace challenges", "adopt a growth mindset" and thereby "improve achievement and the self-perception of their abilities".

Yet, overall, the 'agency' being emphasised is most comfortably positioned in relation to individual learners. While Cooper (Ch3) notes exhortations that students will go on and contribute to making their countries fit for the future, such contributions seem more about adapting or furthering than critiquing or challenging the existing direction of travel. Interestingly, Fallon (Ch13) notes that, to some extent, students are being equipped to "cope" with the demands of rapidly changing environments.

Concepts

To respond to such predicaments, this social project has developed the eponymous *concept* of 'Innovative Learning Environments'. That concept, most fundamentally, orients action towards a *complete* or *holistic* construct encompassing physical, social and pedagogical aspects (sometimes presented, in a diagrammatic model, as graphically intertwined). Many preceding chapters purposefully emphasise the importance of understanding the ILE, as described by the OECD or in influential international scholarship, as an "ecosystem" or "organic whole" that links these different aspects (Cooper, Ch3; Edwards, Ch9; Herewini, Hawera, & Cowie, Ch10; Fallon, Ch13; Trask, Ch14).

However, the ILE concept is not totally encompassing: it focusses, as Cooper (Ch3) correctly highlights, on educational 'outputs' more than 'inputs'. In other words, the project of ILEs is focussed on achieving excellent *outcomes from* education, rather than on other issues, such as universal access, that are the object of many other projects working in fora such as UNESCO.

Ethos

Descriptions of the *ethos* of the project fundamentally orbit around themes of learner-centredness and how to achieve it. 'Correct teaching', in this project, recognises students as people, with their own emotions and motivations, while 'correct learning' is both collaborative and appropriately challenging; these ethics, as Cooper's account (Ch3) makes clear, are propagated from prior research projects, and it is on that basis that they derive their eminence.

There is also a strong ethic of *horizontal connectedness*—by which is meant, as both Cooper (Ch3) and Falloon (Ch13) emphasise, forging links between different school 'subject areas' and between in-school and out-of-school contexts. That definition is important because, as elaborated below, the notion of 'horizontal connectedness' comes to have a wider range of meanings in Aotearoa New Zealand. There is also an emphasis on teacher professionalism: often expressed via an ethic that teachers will take on distributed leadership in areas such as vision setting, planning, and co-ordination.

Sedimentation

In some ways, the *sedimentation* of the social project might be considered surprising—not so much in what is covered, but in the relative degrees of emphasis accorded to different artefacts. Prominent artefacts include graphical models and checklists focussed on learners (the 'Learning Compass', reproduced by Cooper, Ch3) and the (holistic) environment itself (the 'Learning Environment Model', in Falloon, Ch13).

Yet, while the social project certainly seems interested in aspects of the physical environment, with open place spaces, flexible furniture and 'cutting-edge' technology being mentioned (Edwards, Ch9), these are seldom the real focus of attention. As Falloon notes:

> OECD reports focus less on space design, and more on the nature of teaching and learning happening within them. They also describe the sort of changes needed to learning design and pedagogy to facilitate outcomes enabling students to thrive in increasingly unstable future environments.

As I mentioned earlier in the chapter, the extent to which learning environments are positioned as 'physical' is often contentious. It seems plausible that there is a deliberate effort to sediment artefacts in ways that avoid that aspect of the environment coming to dominate the project.

Engagement with institutions

The actions of *engagement with institutions*, conversely, might be readily anticipated by those familiar with the OECD and its projects. The OECD itself, as Cooper emphasises (Ch3), is crucial for the project: providing resourcing for ongoing work, including evaluation initiatives focussed on comparative analyses; and, along with other bodies such as UNESCO, serving as a dissemination route for reports and other outputs. The OECD is also a venue for various policy forum initiatives (Cooper discusses the International Policy Dialogue Forum, for instance), at which senior decision-makers are engaged. Where issues are considered particularly salient, particular reports are produced: for example, on approaches to institutional leadership, vision and strategy formulation, and (as Fallon emphasises especially) initial teacher education.

Lived experience

Properly understood, the *lived experience* of ILEs, of course, incorporates the aggregate of crises, large and small, encountered by all those who try to enact the project at every level. Yet the most visible ways in which such experiences feed back into the social project of ILEs at the international/OECD level is, as Cooper emphasises, via a number of longitudinal research projects taking place across several countries (including Aotearoa New Zealand).

Emergent concerns emphasise discrepancies between design and enactment, and the inadequacy of merely labelling a school as an ILE; one expression of which is that "a design may be deemed 'innovative' but it only becomes an ILE once its inhabitants (teachers and students) teach and learn innovatively within them" (Mahat et al., 2018, quoted in Cooper, Ch3). It is for this reason that an increasing emphasis is being placed, as my initial overview highlighted, on strategies to support 'practice change', school leadership and team teaching.

The focus of the present narrative, of course, is not about how the social project of ILEs is developing at an international level, but rather about the introduction and institutionalisation of its concepts across Aotearoa New Zealand. Introducing ILEs there necessarily involved projecting those concepts onto the *existing* framework of 'learning environments' in that polity. For that reason, I turn next to how the history of such learning environments is represented in the preceding chapters.

A schematic history of learning environments in Aotearoa New Zealand

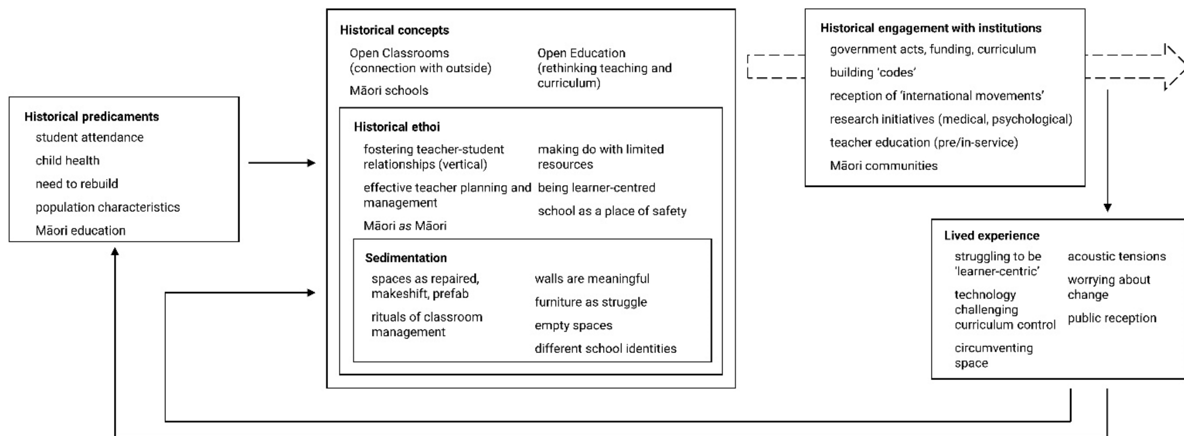

Figure 2: A schematic overview of learning environments in Aotearoa New Zealand

Figure 2 purports to provide, using the same graphical format as before, a schematic history of 'learning environments' in Aotearoa New Zealand. It should be clear that the subject matter of the present section is *not* a single social project *per se*, and thus that the figure aggregates many projects over a significant period of time. Constructing such a composite picture stretches my framework to the limits of its validity; were the history of schooling across the polity to be the overall focus of the chapter then I would approach the analysis differently. Yet, for present purposes, it seems legitimate and useful to frame aspects of prior projects—predicaments, concepts, and so forth—in a way that shows how they provide a particular historical backdrop for the introduction and institutionalisation of ILEs. In doing so, I aim to be true to the activity theory tenet of historicity: that deeply embedded precedents of practice form the conditions in which change occurs and shape how any attempts to change practice are received and co-opted.

Overall, I wish to highlight that 'learning environment' projects in Aotearoa have historically confronted predicaments concerned, to reprise a vocabulary introduced above, with issues of educational 'input'—such as ensuring access to schooling. A range of preceding initiatives, often derived from 'international movements', have had varying degrees of impact over decades, and these have elicited very mixed reactions from teachers, students and the wider public. A strong ethos of 'learner centredness' is interpreted, in this context, as encouraging the formation of strong teacher-student relationships. A parallel ethos, which Wright (Ch2) calls "making do", underpins a creative appropriation of the physical spaces of schooling: necessary because those spaces, as actually sedimented, have been manifestly inadequate to mediate wider educational objectives. Learning environment projects across the policy have typically worked with and through a range of other institutions, including, on the one hand, governmental initiatives that aim to codify universal knowledge and, on other, local communities whose disparate concerns tend to pull schools towards having different 'institutional identities'. Once again, in the rest of this section I shall highlight some particular aspects of this schema of consequence to the later analysis.

Historical predicaments

The historical *predicaments* that have shaped 'learning environments' in Aotearoa New Zealand are incisively described by Wright (Ch2). There has been a very longstanding emphasis on problems of low attendance and poor student health, with these arising partially from the more general state of

public health and, at times, against a backdrop of child labour. In more recent decades, such predicaments have been complemented with a focus on accommodating bulges in population demographics and dealing with serious challenges to school estates arising from disasters, such as earthquakes.

Furthermore, particular schools have been established, at different times, in response to perceptions of educational need for particular sectors of the population—a notable example being the 'Native Schools' (sic) set up from the early 20th century onwards for Māori students and the ongoing development of such institutions as distinct social projects over decades.

The common thread, as characterised above, is that these are predicaments concerned with educational 'inputs': how to ensure that all children can and do get accommodated within some institutionalised 'learning environment'.

Historical concepts

Particularly pertinent *concepts* orienting projects over recent decades have, as Wright (Ch2) emphasises, sought to circumscribe what it would mean for a learning environment to be 'open', 'modern', or 'flexible'.

Wright draws particular attention to the concepts of 'Open Education' and 'Open Classrooms', which have very different meanings. The notion of Open Education directs attention towards reimagining pedagogy; Wright emphasises that "espousing this philosophy meant teachers rethought their views of control, ideas about curriculum and ideas about pedagogical practices". The concept of Open Classrooms, on the other hand, orients action, in highly specific ways, towards the redesign of the physical environment. More specifically, 'Open Classrooms' orients design practices, wherever possible, towards removing exterior walls, which the concept positions as barriers between the building interior and the 'fresh' outdoor environment (exposure to which is positioned as bringing health benefits). That emphasis on 'open' classrooms was sometimes succeeded by a focus on 'open-plan' schooling: a pivot towards greater emphasis on *internal* room configuration that also means eradicating walls (this time, to make larger classrooms).

Somewhat separately, as Herewini, Hawera and Cowie (Ch10) and Nelson and Rehu (Ch15) each emphasise, there has also been a growing conceptualisation of culturally Māori education, though arguably that conceptualisation directs attention more towards pedagogy and community relations than to the built environment (Wright, for example, documents Open Classrooms examples in Māori institutions that seem little different, in their physical form, to those elsewhere).

This persistent conceptual demarcation between *developing pedagogical practice* and *re-designing physical space* is, I suggest, an important precursor to how ILEs would later be re-conceptualised and introduced.

Historical ethoi

While descriptions of the particular *ethoi* (plural of ethos) predominating at different moments are heterogeneous, a common thread is an emphasis on how attending school should *feel*.

One longstanding ethic emphasises that school should be a place that *feels safe*; a clear response to some of the most pressing predicaments being posed which has, as Reinsfield (Ch11) emphasises, been propagated down to the present day. A strong ethos, in recent decades, of striving to be *learner-centred*, as also emphasised by Reinsfield, has built on a long-established notion that teachers should act as *guides* for students through their period of compulsory education (a period to some extent, as discussed by Barnard and Ferrier-Kerr, Ch8, seen as a 'rite of passage').

Yet this ethos of awareness and responsiveness in relation to *students* has typically been accompanied by a notion that teachers carefully plan for classroom practice as *individual* practitioners, rather than in close collaboration with other teachers. I thus characterise this ethic, by contrast with that of ILEs, as one of *vertical connectedness*.

Another core way for teachers to 'correctly' mediate their practice uses an ethic which Wright characterises as "making do" (Ch2), in which people relate their educational objectives to the built environment plant available and, in many cases, seek to subvert aspects of the latter in pursuit of the former. This ethic proceeds from a recognition that the physical learning spaces of schools are expensive (or underfunded) and, therefore, that those actually available are perennially inadequate (or unsuitable). That recognition, in turn, is taken as tacit permission to creatively reappropriate the available spaces. Teachers, sometimes together with students, engage in 'working out' how to make best use of available spaces: in doing so, they rearrange and repurpose them. For particularly 'underserved' subject domains, enacting this ethic has involved appropriating corridors, halls and outdoor spaces and thereby *escaping* from other spaces viewed as overly constraining; Luton (Ch5) and Coleman and Thomson (Ch6), for example, each provide insightful accounts of this occurring in drama education. Making do, in turn, has important implications for how learning environments in schools come to *feel owned* by their denizens; it is, to reprise a vocabulary I have used elsewhere (Bligh & Crook, 2017), a core aspects of their *social constitution*.

Sedimentation

The *sedimentation* associated with learning environments has varied, at different moments, from prefabricated to "makeshift" and from cramped to open-plan. Wright (Ch2) provides an astute overview of some of the different permutations. One common thread is a sense of inadequacy that I have elsewhere called viewing space as *impeding* (Bligh & Crook, 2017). Furniture has often been seen as something to struggle *against* (Wright describes it as often heavy, standardised, and wooden). Walls, on the other hand, have attracted significant but varied meanings—whether positive, as protective barriers against noise or cold, or negative, as signifiers of overcrowded conditions (Nelson and Rehu, Ch15, for example, disparage a history of 'eggcrate' classrooms). This sense of inadequacy is not unique to Aotearoa New Zealand but, nonetheless, should not be ignored: ethoi starting from the presumption that spaces are problematic have often been well-founded.

Sedimented alongside these aspects of the built environment have been *rituals* of classroom management—such as teachers and students together moving chairs and tables as an act of preparation for particular practices (Luton, Ch5)—which are every bit as entrenched and meaningful as the spaces and furnishings themselves. Another layer of sedimentation takes shape at the 'school institution' level, with Reinsfield (Ch11), in particular, highlighting that particular schools have long-established reputations (for being 'traditional' or 'innovative', for example) that influence community relations, including parental decision-making about where to send their children.

Historical engagement with institutions

Turning to the issue of *engagement with institutions*, it is clear that state bodies have been important collaborators. Indeed, prior social projects concerned with learning environments have, to some extent, had their concepts *stipulated by* governmental authorities, such as the Ministry of Education and Education Review Office. Such relationships are commensurate with what Blunden (2014) calls project 'colonisation' (p.19). Several chapters discuss how such bodies have sought to influence school environments via legislative acts, funding structures and curriculum stipulations

(Wright, Ch2; Luton, Ch5; Coleman and Thomson, Ch6; Barnard and Ferrier-Kerr, Ch8; Reinsfield, Ch11).

Reflecting the concept-level divide between built estate and pedagogical development, established above, government has set *building* 'codes' for schools, which have stipulated precise requirements in policy priority areas, while seemingly overlooking other aspects of school provision (Luton, Ch5). Importantly, state institutions have often sought to valorise, and impose onto schools, knowledge derived *externally*. Wright, for example, discusses the influence of commissioned research initiatives led by those with expertise in medicine or psychology, rather than education *per se*; and also how school building codes (including those for 'Open Classrooms') were sometimes derived from developments in other sectors, such as hospital design.

Also valorised—importantly, from the standpoint of the subsequent narrative—have been concepts from overseas. Open Schools, for example, were a concept imported from the Open-Air Schools League, which Wright characterises as an 'international movement' which engaged in active international lobbying, including across the Commonwealth. (I have characterised ILEs, above, as an 'international movement' to draw attention to the parallels between the two initiatives). Initial Teacher Education, on the other hand, has provided a less unidirectional vehicle for institutional engagement, serving as a point of relationship between schools, universities and government.

Another tendency, somewhat countervailing to the one above in its emphasis on locally developed knowledge, has been to collaborate with local communities in attempts to 'embed' schools—not only within communities as people and territories, but within their sociocultural value systems. Interestingly, the chapters which most strongly emphasise such community engagement are those concerned with *Māori medium* schools, where, in recent times, local concepts, identities and forms of knowledge have been co-created with local communities over protracted periods (Herewini, Hawera & Cowie, Ch10; Nelson & Rehu, Ch15).

Lived experience

When examining the *lived experience*, we must start by acknowledging that the crises experienced have been many and varied. Yet the preceding chapters highlight several recurrent tensions that have influenced how previous projects have unfolded in notable ways.

Two such tensions are concerned with challenges to teacher professionalism. Firstly, teachers have engaged in an ongoing struggle around *being* learner centric. Previous projects, such as those of open-plan classrooms, have implored teachers to reject teacher-centrism on the basis that it represents an 'industrial' model of education. While teachers have largely *understood* the argument, that has not always meant that they have been able to make the attendant changes to their practice (highlighted by Wright, Ch2), especially in the face of new challenges to classroom management posed by noisy open-plan spaces. Secondly, teachers have struggled when confronting the challenges of technological change and, in particular, the effects of that change on their *control* of how educational practices unfold and the information that students use. These experiences, as we shall see below, are exacerbated by the recent turn to ILEs.

Other experiences concern how learning environment projects are received by stakeholders. On occasion, public commentary on the more radical initiatives has been hostile—Wright memorably describes some examples of responses to Open Schools as "vitriolic"—and parents have demonstrated an ability to 'vote with their feet' by sending their children to different schools. Teachers, in particular, may feel caught in the middle of such crises; especially where, as Reinsfield (Ch11) highlights, they disagree with (or fail to understand) new concepts themselves. It is important

to acknowledge that such reactions are not necessarily ill-founded, with attempts to ‘open’ the indoor environment to exterior elements in cold climes, leading to complaints about always being “freezing”, seeming particularly misconceived in retrospect.

Importantly, teachers have thus become used to *worrying* about educational change and how it might be *imposed*: Barnard and Ferrier-Kerr (Ch8), for instance, refer to teachers feeling “vulnerable, insecure and exposed”. Such worries have, over time, come to dovetail with teachers’ own ongoing redefinition of their professional identity. The ethos of “making do”, in particular, has come to symbolise everyday teacher resistance to particular aspects of the imposed learning environment.

It is against *this* backdrop that we need to position the introduction of ILEs to Aotearoa New Zealand.

Introducing ‘Innovative Learning Environments’ to Aotearoa New Zealand

In this section I turn to consider the deliberate introduction of ‘Innovative Learning Environments’ into the educational system of Aotearoa New Zealand. By purposefully revisiting points made in preceding chapters, I aim to highlight how the social project of *ILEs in Aotearoa New Zealand* emerged as a contested amalgam, in which aspects of the ‘international movement’ of ILEs interacted with the rich seam of historical precedent in the polity.

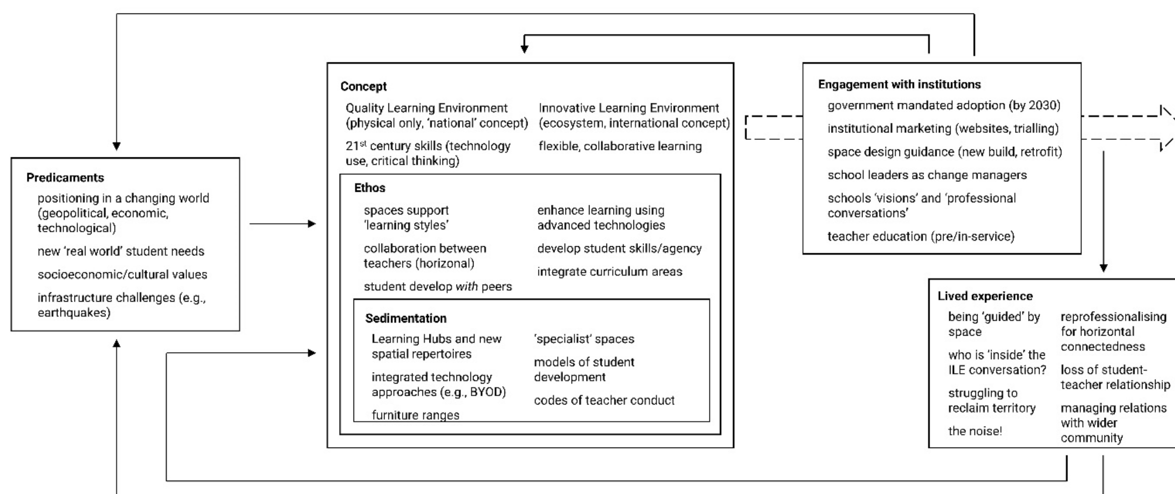

Figure 3: The ‘introduction’ stage of the social project *ILEs in Aotearoa New Zealand*

Figure 3 provides a graphical overview of the content I unpack further below. To permit easy comparison, the illustration’s format is broadly similar to the other diagrams in the chapter. Yet some minor modification is necessary to accommodate the actual narrative. Given the historical precedent discussed above, it should be unsurprising that ILEs were largely introduced by government agencies, who, seemingly based on their own reception of an ‘international movement’ at policy level, stipulated key aspects of what would occur. Those government agencies thus explicitly worked to re-frame both the social projects of schooling and the very predicaments which were understood as being confronted. To reprise vocabulary from earlier, this is a relationship of project colonisation: one social project (government work on ILEs) substitutes its concepts into others (schoos), in this case as a precursor to recruiting existing institutions into a new project (which I call *ILEs in Aotearoa New Zealand*).

A distinct strength of the present book is that the preceding chapters construct detailed narratives from the perspectives of those school-based stakeholders (institutional leaders, teachers, students, surrounding communities) who, having been recruited into the new social project, actually enact and develop it in practice. On the other hand, there is a lacuna about how the high-level policy process unfolded as a social project in its own right—which inevitably produces, in turn, a scotoma (blurred area of vision) in my own narrative. For present purposes, then, the extra (and deliberately unidirectional) arrows in Figure 3 should be taken to indicate merely the direct policy influences as they were experienced by school-based stakeholders.

Engagement with institutions

Given the above proposition that existing school institutions in the social polity have been deliberately *recruited* into working on ILEs by government bodies, it makes sense to commence the exposition of this particular stage of development by first considering the issue of *engagement with institutions*, before moving on to explore the attendant implications for other aspects of the social project.

Most immediately, educational stakeholders were recruited (and are still being recruited) into the new social project by mandate. It is commonplace, in the preceding chapters, to note either that many stakeholders have had no choice in the transition or that there is a government expectation for all schools across the polity to 'be ILEs' by 2030 (Cooper, Ch3; Coleman & Thomson, Ch6; Barnard & Ferrier-Kerr, Ch8; Trask, Ch14). Yet such imperatives have often been accompanied by the softer power of incentives and marketing. Schools requiring funding for new classrooms, for example, have been invited to "trial" aspects of an ILE in those new spaces (Luton, Ch5), and a Ministry of Education webpage has been used to amplify positive success stories (subsequently withdrawn, possibly since its content was seen as hyperbolic). In other cases, earthquake damage has been taken as an opportunity to rebuild school estates along ILE lines (Coleman and Thomson's case study, Ch6, is situated in such an institutional circumstance). The common threads are a desire to frame *good examples* that might influence aspirations elsewhere; to reinforce such short/medium-term *encouragement* with longer-term policy *imperatives* ('by 2030'); and, importantly, to frame *school leaders* as both target audience for persuasion and locus of institutional change.

Institutional leaders, once recruited, have been expected to establish new institutional 'visions' (Coleman & Thomson, Ch6; and discussed in depth by Falloon, Ch13) and lead 'professional conversations' about those visions within their institutions (Barnard & Ferrier-Kerr, Ch8; Falloon, Ch13). In the case examined by Falloon (Ch13), that was accomplished via "establish[ing] a strategic leadership team with devolved responsibilities for leading aspects of the change process". In parallel with these developments, a range of documentation has been produced by governmental bodies, much of which emphasises 'physical' aspects of the learning environment. Luton (Ch5), for example, mentions the New Education Infrastructure Design Guidance document, which sets out detailed standards for the acoustics, thermal comfort and air quality of ILE spaces. There has also been a repeated emphasis put on teacher education, and especially *initial* teacher education, as a vehicle for changing practice in ways commensurate with ILE values. Yet, as Nelson and Johnson (Ch12) make clear, to some extent this emphasis on teacher education has often taken a broad and aspirational form rather than having been worked out in detail. The latter contrasts markedly, of course, with the elaborate guidance made available about built environment issues.

Predicaments

As alluded to above, the introduction of ILEs has involved reframing those *predicaments* to which educational systems and their components are seen as responding. Perhaps unsurprisingly, some

such predicaments seem newly posed in ways that echo those of the broader 'international movement' of ILEs (cf. Figure 1). There is much recognition of imperatives that each learner, for example, "is an active participant and citizen in creating a strong civil society, is productive, valued and competitive in the world" (quoted in Cooper, Ch3), and that they should be shaped into "confident, connected, actively involved, [and] lifelong learners" (quoted in Coleman & Thomson, Ch6). Indeed, the broader vocabulary of '21st century learning'—as established before, an established OECD talking point—is also referenced as being newly emphasised alongside ILEs (Charteris & Smardon, Ch4; Coleman & Thomson, Ch6; Nelson & Rehu, Ch15). Posing such predicaments signals a relative shift to focussing on educational 'outputs' which, as preceding sections have established, is more a hallmark of the ILE 'international movement' than of historical precedents in Aotearoa New Zealand.

Yet we should not imagine that ILE rhetoric has been imported wholesale. On the contrary, historically accreted predicaments about cultural values have continued to resonate as ILEs have been introduced: the ongoing relationship between 'liberal education' and a national history of colonisation, for example, is positioned centrally by Nelson & Rehu (Ch15); while infrastructure challenges are discussed in relation to earthquakes by Coleman & Thomson (Ch6). The constellation of predicaments posed, then, is a complex amalgam. Quite how *this* particular constellation of predicaments came to be accepted within the dominant educational discourse within the period of time under consideration, however, is not entirely clear and would be a very worthwhile topic for future research.

Concepts

That lack of clarity, at least from the standpoint of those stakeholders whose narratives furnish this edited volume, extends also to the core *concepts* associated with the introduction of ILEs (Barnard & Ferrier-Kerr, Ch8, note a quick succession of different terms deployed by government agencies). Yet one fault line within the conceptual framework of this new social project is perfectly clear: a demarcation between re-shaping 'physical space', on the one hand, and 'pedagogical practice', on the other.

One particularly important term, in this regard, is *Quality Learning Environment* (QLE), which needs to be understood as distinct from that of ILE. As the Ministry of Education information website emphasises:

> The concept of quality learning environments (QLE) is not a direct replacement for innovative learning environments (ILE). ILE is a term used in New Zealand and internationally to refer to the wider ecosystem of people (social), practice (pedagogical) and physical/property. QLE relate to the physical (only) learning environments. (MoE, 2021)

Thus, QLE and ILE are different but interrelated concepts: with ILE an *international* concept framing a *variety* of pedagogical priorities, and QLE a *national* category orienting attention towards the *physical* environment and attendant *standards* by which it might be evaluated. Such conceptual demarcation, of course, has firm precedent in Aotearoa New Zealand, as the previous section established. Yet it can also be seen as a sensible response to the fact that, as Eames and Milne (Ch7) point out, the core ILE principles "indicate little about the physical spaces".

Other core concepts also seem to be international categories augmented with a more specific national content. Concepts such as flexible and collaborative learning (among others) are appropriated from earlier initiatives supporting teachers to be learner-centric, while the local instantiation of '21st Century Skills' bears some similarity to the equivalent OECD concept, but with,

as Reinsfield (Ch11) acknowledges, a particularly strong emphasis on technology use and critical thinking. While advanced technology is often seen as a core component of contemporary learning spaces (Crook & Bligh, 2016), in this conceptual framework opportunities for students to use technology are being positioned as *ends* in themselves as well as means.

Ethos

The *ethos* of the social project, perhaps unsurprisingly given the above changes, appears more as a set of distinct ethics, only some of which are integrated into a coherent ethos at this stage.

Some of those only 'partially integrated' ethics seem propagated from elsewhere and, perhaps as a consequence, still more espoused than understood and internalised. Much discourse in the social project petitions teachers, for example, to ensure that technologies are used in ways that bolster 'digital literacy' or nurture 'digital community' (Reinsfield, Ch11); emphasises the integration of curriculum areas (Edwards, Ch9), sometimes with technology as a core mediator between those areas (Eames & Milne, Ch7); or leverages claims that new furniture configurations will allow teachers to better support students' different 'learning styles' (Wright, Ch2). Yet such ethics seem, at this introductory stage, hesitant: expressed through phrases such as "there is an expectation that" (Eames & Milne) or that "ILEs have the scope [to]…" (Edwards, Ch9). My reading is not so much that teachers oppose *per se* the introduction of such ethics, but rather that the initial impact on practice is nascent and loosely understood.

However, another set of ethics, which I shall collectively refer to as *horizontal connectedness*, seems more directly enacted and integrated into the core ethos more quickly. One aspect of that ethos involves valorising teachers *working collaboratively* with each other, in both planning and enacting their work. Variously positioned as involving "co-teaching" (Charteris & Smardon, Ch4), developing "collegial relationships" (Barnard & Ferrier-Kerr, Ch8), or as bringing together, with reference to a school unit, the "PMK team" (Herewini, Hawera & Cowie, Ch10), there is abundant evidence in the preceding chapters that this imperative is taken very seriously indeed from the very point that a school is recruited into the ILE project.

Another aspect of this *horizontal connectedness* is the forging of *peer relationships* between students, within what Cooper (Ch3) refers to as "a developing conceptualisation of space, grouping and class". Such relationships are variously conceived as being "student centred" (Charteris & Smardon, Ch4; Coleman & Thomson, Ch6; Eames & Milne, Ch7; Barnard & Ferrier-Kerr, Ch8; Trask, Ch14) or as about the correct pursuit of the concept of collaborative learning (Cooper, Ch3; Charteris & Smardon, Ch4; Luton, Ch5; Coleman & Thomson, Ch6; Barnard & Ferrier-Kerr, Ch8).

Overall, this *horizontally connected* ethic, by comparison with the preceding historical ethos (which emphasised forging supportive teacher-student relationships), impels a profound ruptural change in local practice. Yet, while the change certainly *echoes* the priorities of the 'international movement', the actual nuance of meaning here is much more directly concerned with the integration of *practices* and collaborative *relationships* than is emphasised in the OECD project.

Sedimentation

The *sedimentation* associated with the social project at this stage is, like the concepts and ethos being 'objectified', also bifurcated: in this case between appropriated physical artefacts and locally developed models of pedagogy and student development.

The appropriation of physical artefacts is mainly evident in discussions of space design and technology. Introducing ILEs typically means, in this polity, adopting space designs from elsewhere in ways mostly determined by guidance on *Quality Learning Environments*. For example:

> There are 'Learning Hubs' or large shared classroom spaces surrounded by breakout spaces. These spaces afford teachers and students opportunities to undertake a range of different learning activities. With three teachers sharing each teaching space in a hub, there is a focus on collaboration and co-teaching […] (Charteris & Smardon, Ch4)

Certain recurring spatial design repertoires, then, are seen as useful for a *wide variety* of educational purposes, with the notion of introducing and using 'central areas' surrounded by 'breakout spaces' described several times in the preceding chapters (e.g., Herewini, Hawera & Cowie, Ch10; Nelson & Johnson, Ch12). Different aspects of the 'central' areas are discussed in varied ways: as 'L-shaped' (Herewini, Hawera & Cowie, Ch10), or as 'open-plan' and lacking a front-facing focal point (Trask, Ch14). Yet such overall configurations are certainly perceived as a "standard Ministry design" (Falloon, Ch13), which a range of specialist, private-sector furniture manufacturers are seeking to accommodate in their catalogue ranges (Wright, Ch2). This situation leads to immediate questions in some institutions about how such standard spaces might be customised to suit local circumstances and preferences (Falloon, Ch13). Installations also include a range of 'specialist spaces', such as drama studios with lighting rigs and theatre curtaining (Luton, Ch5). Such dedicated provision, given how such discipline areas have routinely been overlooked before, is typically well-received. Yet the spaces themselves are not, in reality, always well-matched to local practices (Coleman & Thomson, Ch6). Similar tales of appropriation are provided in relation to technology. Room-integrated technical systems, mobile device 'pods' and Bring Your Own Device (BYOD) policies are all introduced (Falloon, Ch13; Coleman & Thomson, Ch6), but teachers are seen as being "supported to develop" an understanding of how to use these artefacts (Reinsfield, Ch11), rather than having been integral to their introduction.

Recruitment into the ILE project does, however, seemingly generate an intense focus on reimagining students and the work of teachers in ways that quickly develops local models. Falloon (Ch13), for example, documents how a school pursued "the development of learner virtues and attributes frameworks known as the *Learning COGs*" (Ch13, emphasis in original). The framework, an attempt to objectify those aspects of institutional ethos concerned with student skills and agency, is the product of extensive work by a range of local stakeholders. On the surface, the work of teachers is subjected to a more centralised reframing: via the introduction of the national *Our Code Our Standards* government framework (Cooper, Ch3). Yet, in reality, project participants moved very quickly to localise such imperatives, with Nelson and Johnson's description of how participants developed a specific pedagogy of 'workshops' (Ch12) providing a detailed and highly instructive example of how that was accomplished in one setting.

Lived experience

Unsurprisingly, given the fragmented and unsettled nature of the social project at this stage of its development, a broad range of crises are described in the preceding chapters. Yet broad themes can be identified: concerned with spatial 'influence' and how new pedagogical practices re-shape relationships between the various stakeholders involved

Some prominent crises are concerned with reacting to (or against) new physical spaces. In some accounts, new spaces are positioned using the metaphor of nudging: as "enabling constraints (Nudges) that is intentional interventions to guide someone towards a certain decision" (Cooper, Ch3). Yet such attempts at nudging do not go unnoticed or unquestioned. On the contrary, new physical classrooms are often experienced as highly problematic and frustrating by their denizens, with the issue of *noise* being very frequently mentioned as an urgent issue requiring amelioration in practice (Barnard & Ferrier-Kerr, Ch8; Edwards, Ch9; Herewini, Hawera & Cowie, Ch10; Reinsfield,

Ch11; Nelson & Johnson, Ch12; Trask Ch14). More widely, there develops a sense in many locales that only some stakeholders are being positioned *inside* the "dominant conversation" about ILEs (Coleman & Thomson, Ch6), and that others are simply having spaces imposed on them. Out of this sense develops both a degree of resistance to change and a desire to engage in the "pedagogical reclaiming of territory" (Barnard & Ferrier-Kerr, Ch8).

The latter experiences dovetail with a wider set of struggles about practice development and stakeholder relationships. The above account has already emphasised that the move towards an ethic of *horizontal connectedness* is taken very seriously at this stage of development. Enacting that ethic leads, fairly quickly, to crises: wherein divergent beliefs between teachers need to be managed if they are to work in teams rather than individually (Barnard & Ferrier-Kerr, Ch8). It also poses issues about how student teachers might benefit from their initial training experiences, given the relatively unstable situation (Reinsfield, Ch11).

Yet the most fundamental practice problems directly challenge the ethic itself. Pursuing a specifically *horizontal* connectedness prioritises certain forms of collaboration and can serve to fracture other important relationships and partnerships: particularly those that teachers have historically had with their students and other stakeholders, such as parents (Edwards, Ch9; Trask, Ch14). Where ILE spaces are manifest as large open-plan settings, with several teachers roving around, students can struggle to identify 'their' teacher or to ask for help—sometimes resulting in students finding it easier to search for help using Google than to ask a teacher verbally (Edwards, Ch9). There are also concerns that some students are advantaged more than others in ILE settings, with some struggling to self-regulate in the new setting (Charteris & Smardon, Ch4; Edwards, Ch9). Conversely, forms of pedagogical connectedness are seen as increasingly bound *within* institutional boundaries, with Eames and Milne's chapter (Ch7) providing a sustained emphasis on the importance of continuing to value those pedagogical opportunities arising *outside* the institutional premises.

Against this backdrop, relationships with parents and the wider community seem occasionally strained (Edwards, Ch9; Fallon Ch13). Those parents who feel—sometimes on well-founded bases—that they do not understand or approve of the direction of change to institutions, or that they have been inadequately consulted, can occasionally come to play an antagonised role within the social project. Edwards highlights cases in which some parents sought to send their children to a different school as a consequence of such antagonisms (Ch9).

Many of these crises can be understood, in different ways, as attempts by stakeholders to develop and utilise "spatial agency", which Charteris and Smardon (Ch4) characterise as the capability to read spatial intentions, to deliberately manipulate how one reacts, and to re-frame both the material spaces and the design intentionality behind them. Attempts to develop such agency, and the consequent development of the social project itself, become central as the project moves on to a stage of development concerned with institutionalisation.

Institutionalising Innovative Learning Environments in Aotearoa New Zealand

Having characterised the social project of ILEs in Aotearoa New Zealand as having an 'introductory' stage of development, triggered by existing school institutions being 'recruited' into a project driven by state bodies, I now turn to what happens subsequently. I refer to this next stage of development as 'institutionalisation': a term I use because of a distinct sense, in earlier chapters, that stakeholders deliberately become involved in *finding means* to address crises being encountered and then *embedding* those means so that others can use them. Blunden (2014) also uses the term

institutionalisation to describe how projects develop, though in a slightly different sense. In Blunden's account, institutionalisation refers mainly to 'mainstreaming', or embedding practices more widely (p. 8), whereas the stage of development I describe below involves mainstreaming certain practices across (and into) a 'community' while *at the same time* localising new concepts and structures and thereby *breaking away* from the interpretations of state bodies.

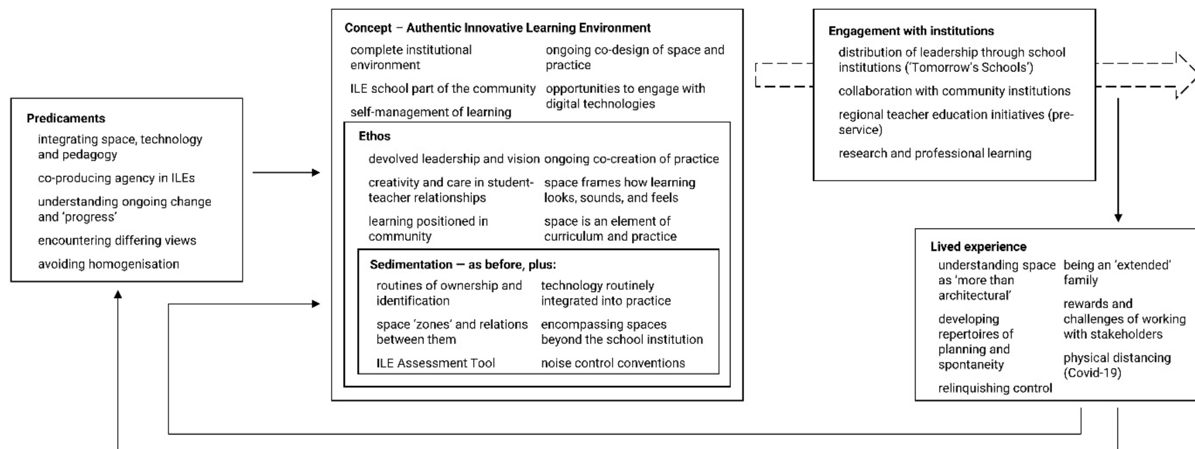

Figure 4: The 'institutionalisation' stage of the social project *ILEs in Aotearoa New Zealand*

Figure 4 provides a graphical overview of how I perceive this stage of development, using the same format as before. It should be apparent immediately that the predicaments being posed, by contrast with those highlighted in Figure 3, are more concretely about practice and less globally aspirational. There is a sense that 'global challenges' recede to the periphery of attention and are supplanted by urgent issues challenging the identity of the social project. Importantly, the predicaments posed relate closely to the lived experience of the *preceding* phase of development ('introducing' the social project). That change reflects, in my view, that the social project is starting to develop *immanently*, as a product of its own internal logic. As a consequence, the dominant conceptual framework and ethos is being redeveloped, and the range of artefacts being sedimented into the project is being augmented.

Predicaments

The actual predicaments posed at this stage primarily concern the ongoing development of the social project itself. They orbit around the broad themes of integration, agency, and gauging progress.

Predicaments of integration arise from participants' experiences that different aspects of the ILE project are contradictory. Given my analysis in the preceding sections, it should be apparent that these problems are genuine and run throughout the structures of the project. At this stage of development, therefore, it becomes foregrounded that, as Cooper puts it, "the whole context needs to be considered; that is, the physical space, the social aspects and the pedagogy experienced by the learners" (Ch3). Another urgent predicament is how to integrate the views of disparate stakeholders into the project, and in particular what Falloon calls "securing external support through partnerships with parents" (Ch13). Many such parents, in particular, remain sceptical about the very concepts of Innovative Learning Environments, with Fallon reporting a parent focus group "where there was a perception that *traditional methods had worked for them*" (emphasis in original).

Such challenges of how to integrate disparate aspects into a coherent project lead, in turn, to other predicaments. One is how to deal with encounters with different views. Where contributions are

conceived as reflecting "outdated understandings" (Reinsfield, Ch11), it is recognised, the temptation to be dismissive needs to be avoided. Reinsfield emphasises instead a realisation that "collegial, parental, and students' understandings had to be *navigated* with a view to *enact their subject*, as it is conceptualised in the curriculum" (Ch11, my emphasis). Such concerns dovetail into the broader predicament of *avoiding homogenisation*. School stakeholders do not relish the prospect of being puppets, whether of government policy or an 'international movement'. Nelson and Rehu, for example, highlight that "ILEs risk homogenising education provision to a neo-liberal economic imperative running counter to the significant social justice challenge facing Aotearoa New Zealand" (Ch15).

The issue of agency, then, is posed centrally within the social project at this stage, with 'physical spaces' often serving both as mediator in the co-production of that agency and as the object of co-design initiatives within particular schools (Charteris & Smardon, Ch4). Yet the development of such agency often involves struggles to find useful or appropriate resources to guide progress; Trask (Ch14), for example, documents teachers' struggles to find information from elsewhere that they can *actually use* in developing their new practices. In the absence of such resources, there is a sense that developmental initiatives can struggle to determine their direction or to gain traction. The issue of *understanding* ongoing change and progress, therefore, becomes foregrounded; there is, it is felt, a "desperate need" for ongoing evaluative work as the social project of ILEs unfolds (Falloon, Ch13).

Concepts

What I am calling the 'institutionalisation' of *ILEs in Aotearoa New Zealand* involves considerable conceptual innovation and development. Most obvious is a determined attempt to overcome the preceding conceptual division between different aspects of the learning environment (cf. QLE and ILE, above). Instead, ILEs are conceptualised more 'authentically' and 'holistically'. Falloon (Ch13), for example, comments on the "holistic nature of the revised model in which ILEs were conceptualised as *complete institutional environments*" (emphasis in original). Nelson and Rehu (Ch15) make a similar point about what they call "a school-wide ILE". There is an attempt, in tandem, to ensure that cultural values and the surrounding community are understood as integral to that "complete" or "school-wide" framing. Deploying an indigenous term which implicates the valorisation of culturally-embedded sources of wisdom, for example, Nelson and Rehu emphasise the increasing importance of "taking guidance from a valued whakataukī to refocus learning environment design, pedagogy and relationships to respond to their students as Māori" (Ch15). This conceptualisation, in other words, views the school *as a part of* the community and as a locus of community values.

Other aspects coming to the fore of the conceptual framework at this stage are the ongoing co-design of space and practice, and the 'self-management' of learning. Trask (Ch14) positions each of these issues as important for enabling participants to view the project as "an evolution" rather than a fixed end-state. It thus seems appropriate to understand co-design and self-management as forming part of the conceptual framework of the project rather than its ethos. These issues, additionally, exist in tension with other aspects of that same framework. *Self*-management, for example, seems to express a pole of individuality somewhat at odds with the values of 'community' and 'holism' emphasised in the concepts of "complete institutional environments" or community framing. "Student self-management of learning and choice are key philosophies", argues Trask, before going on to contend that "learning is most effective when students are given choices and a role in leading their learning".

We should also establish that 'breaking away' from the influence of state bodies or international movements is a process rather than a sudden fact. Project participants working in an

‘institutionalisation’ phase are not, of course, suddenly free from external influence, even while working to develop the project immanently. It is clear from the preceding accounts that government bodies so continue to exert influence on the social project at this stage, most directly in the stipulation that schools provide “opportunities for students to engage with a range of digital technologies”, once again with a fixed deadline (Reinsfield, Ch11). Such opportunities are now positioned (by government) as an end in themselves, and school institutions are positioned as needing to respond to this imperative.

Ethos

The *ethos* of ‘institutionalisation’, by contrast with the ‘introduction’ stage, demonstrates a considerable development of focus and much greater coherence between component elements.

One core aspect of the ethos is that leadership and ‘visioning’ responsibility should be devolved to a greater number of institutional staff. Barnard and Ferrier-Kerr, for example, document the increasingly central role of “middle leaders” in leading change, facilitating “robust and open professional conversations”, and managing relationships between others where divergences of opinions arise (Ch8). That ethic complements an increased emphasis on the ongoing co-design of space and practice, and especially a gradual increase in what Charteris and Smardon characterise as “students’ decision making around the use of classroom spaces” (Ch4). The common thread is one of promoting agency, with Charteris and Smardon’s chapter providing an extended analysis of how ‘spatial literacy’ and ‘spatial agency’ develop as stakeholders work to adopt new practices within the ILE project.

The ethos at this stage also sees a return to values of care and community. Herewini, Hawera and Cowie, for example, document how:

> An ethic of care when teaching and learning pāngarau [mathematics -BB] was evident as kaiako [teachers -BB] sought to create a welcoming and inviting classroom community that maintained high expectations and engaged students […] Not only was an ethic of care extended to ākonga [students -BB] but in this PMK kaiako showed care and concern toward each other. Examples of care and concern for each other were when kaiako were thoughtful about how and what to communicate with each other while learning to share space, time and resources responsibly. These displays of an ethic of care suggest acts of resilience do not have to be severe responses to significant events but rather a series of mundane or ordinary moments, accrued over time […]. (Ch10)

By suggesting a “return to” such ethics, of course, I aim to highlight that this aspect of the ethos reflects a historical precedent, from prior ‘learning environment’ projects in Aotearoa New Zealand, which had been temporarily submerged during the ‘introductory’ phase of ILEs.

Other accounts foreground how this ethic of care and community interacted with that of devolved responsibility. Nelson and Rehu, for example, notice that the “physical design of the ILE was supported by a collective culture of experimentation and partnership amongst the staff and community”, with a sense of “collective responsibility […] evoked multiple times in interviews” (Ch15). It is interesting that both chapters I invoke here consider explicitly *Māori* school settings. While I do not wish to imply that this ethic is absent elsewhere, it is, nonetheless, noteworthy that discussions of such settings do seem to indicate a relatively rapid shift towards such priorities. As I shall elaborate further below, it is as though those schools—like those in Maori settings—whose prior histories involved developing particularly strong community relations are able to move through

some of the crises of the 'introductory' phase and on towards the stage of 'institutionalisation' more rapidly.

A final aspect of the ethos I wish to highlight involves a struggle to correctly conceptualise the role of 'physical' space within the ILE. On the one hand, space is increasingly conceptualised as an element within curriculum and practice, rather than as a novel add-on supporting the 'new' or the 'different'. Eames and Milne, for example, document the increasing struggle to support what they call "purposeful design", in which teaching and learning, a range of different spaces, and technology are aligned together—in the case they describe, to support the integration of learning across different spaces using mobile technologies (Ch7). On the other hand, the discourse about space undergoes a marked shift. As described above, during ILE 'introduction' physical space tends to be approached as something handed down and conceived in lived experience as "enabling constraints" used to nudge old practices. By the 'institutionalising' stage, however, that rhetoric has shifted. Physical space is now seen as a product of the community that proudly reflects the concepts and ethos that are being developed. In one case, school stakeholders took inspiration from earlier work to purposefully design "learning zones" throughout the school that "were designed to communicate how learning would look, sound and feel" (Nelson & Rehu, Ch15).

Sedimentation

As Figure 4 indicates, I perceive the *sedimentation* occurring at this 'institutionalisation' phase to involve *augmenting* rather than supplanting the existing constellation of artefacts. Learning Hubs, BYOD approaches, furniture ranges, specialist spaces, models of student development—all of these artefacts, having been markers of the introduction of the ILE project, remain in currency during the institutionalisation stage. That is partly, of course, because of the regulatory effect on practice of investment lifecycles; replacing some of these artefacts is thus rendered prohibitively expensive in financial terms. Yet it also reflects that many of these artefacts, with the partial exception of rigid teacher codes of conduct, have been found useful. The focus at this stage therefore seems to involve introducing *additional* artefacts, as part of attempts to mediate those crises encountered in the recent past. Many of those new artefacts, as elaborated below, concern routines and conventions of practice sedimented both through repetition and ongoing discussion with others.

One such new form of sedimentation involves increasingly well-developed routines of ownership and identification. Ways are found so that, as Charteris and Smardon put it, the "politics of who gets to decide how the spaces are used is made explicit" (Ch4). The contribution by Trask provides an incredibly evocative exploration of how such routines and conventions can be made to work as ILEs become increasingly institutionalised. Sliding a door symbolises a change in flow of control between teachers and students; movement between areas indicates the kind of action that is expected; noise is no longer a mere problem but has become also a means. To cite but one example:

> Pharrell William's *Happy* plays over the loudspeakers to signal the end of lunch. Students have until the song ends to be in class. T2 slides the door to divide the spaces but leaves a small opening of about two metres. Each teacher is standing in their own space, greeting students and chatting with them as they settle. In this team-teaching environment, one way of maintaining relationship and fostering a sense of class identity is with this established routine of beginning and ending sessions as separate groups. (Ch15)

Such routines rely, in turn, on a variety of other artefacts that have been introduced. I established above that spaces are now conceived as regulating learning via *proudly reflecting* the concepts and ethos, and this phenomenon is reflected in the sedimentation of additional and purposeful design

into (and onto) the ILE spaces that had been introduced. Nelson and Rehu provide an example of how that has been accomplished in one setting:

> Within each of the interconnected learning pods, activity zones were designed to communicate how learning would look, sound and feel. The activity zones distinguished ways of learning, thinking and working; enacting space as an element of curriculum […] (Ch15)

Those 'activity zones' are, of course, themselves constellations of particular physical artefacts, including the positioning of furniture and equipment, the use of particular colour schemes, proximity to doors, and so forth. Some of those artefacts also serve other purposes within project sedimentation at this stage, and I highlight in Figure 4 the particular prominence of conventions for noise control and for integrating digital technologies into practice. Yet, overall, they are an attempt to add extra 'layers' of meaning onto spaces—which, in some cases, is accomplished quite directly by renaming them (Nelson & Rehu, Ch15). Such routines and conventions are developed *within the community* to enable people to move between different moments of practice, either by reconfiguring the space or by moving from one location to another. Importantly, some of these artefacts also allow for routines of movement between spaces on school premises and those outside—such as, in Eames and Milne's example (Ch7), a local 'visitor centre' used as a base for science projects. Such sedimentation supports the concept, outlined above, that the school is part of the surrounding community.

Once again, however, we should not imagine that institutionalising ILEs allows stakeholders to develop as they see fit. The Ministry of Education, for example, is discussed as recently having introduced an "Innovative Learning Environment Assessment Tool" (Nelson & Rehu, Ch15). Yet it is well-received, in the preceding accounts, that this tool increasingly foregrounds issues—of culture, school community and the surrounding environment—that seem well-aligned with the concept of 'authentic' or 'holistic' ILE that is being foregrounded at this stage by stakeholders more generally. That may be, to some extent, a product of how 'institutionalising' ILEs seek to engage with other institutions.

Engagement with institutions

As the social project of *ILEs in Aotearoa New Zealand* enters its 'institutionalisation' phase, the priorities in regard to engaging with other institutions involve moving beyond government mandates and towards fostering, over time, more involved and bi-directional forms of understanding within and between institutions. To a great extent, of course, doing so arises out of the direct pursuit of concepts such as 'co-design' and 'community embeddedness'. Yet engagement with other institutions is also important in maintaining the identity of the overarching project. That is because 'localising' away from the interpretations of government bodies and the 'international movement' comes with various risks—such as forking the project into multiple, disconnected fragments, potentially with each school moving towards comprising an entirely distinct social project.

One core form of institutional engagement involves forming 'bridges' with the surrounding local community. As established already, those chapters focussed on *Māori medium* schools document such bridge formation happening particularly quickly, and thus those chapters also give the fullest exploration of how such connections have unfolded over time. Nelson and Rehu (Ch15), in particular, position the unfolding of relationships between the school and surrounding Māori community as a central focus of their chapter; with one core aim being to ensure that the community plays a role in ensuring that the "journey" on which students travel through the ILE is appropriate for "Māori values". Yet such engagement does not happen only in Māori institutions.

Eames and Milne, for example, highlight an ongoing partnership with a local community centre and how goals have been developed for student work to contribute to "community expo" events (Ch7). These are initiatives taken in pursuit of co-design and community embeddedness.

Other relationships of institutional engagement are maintained via networks of schools and universities. Such relationships are not 'local' in quite the same sense as those maintained with stakeholders from the surrounding community, but, nonetheless, there are sometimes perceived advantages to forming 'regional' networks. One such regional network, discussed by Nelson and Johnson, has been formed to try to ensure that pre-service teachers "were experiencing innovative learning environments (ILEs) when undertaking their practicum placements" (Ch12). The underlying motivation, as Nelson and Johnson also explain, is a sense that the attendant challenges of learning to teach in ILEs "have been under-addressed within policy and research". For that reason, some schools have also become involved in investigative work which sits at the intersection of "research, professional learning and change agendas" (ibid.). That so many of the preceding chapters in the current volume draw on such work is a testament to the developmental relationships forged between schools and universities over recent times. This very book, of course, is both a product of such relationships and potentially a means to stimulate further conversation within the project.

Encouragingly, state bodies such as the Ministry of Education seem increasingly to recognise the importance of "self-determination" and "self-managing" as key principle for ILEs. Evidence for that can be found, as Nelson & Rehu document, in the *Tomorrow's Schools* model that aims to enable "school leaders and staff to design learning environments and pedagogical practices to support the particular needs and aspirations of their students and communities" (Ch15). While the notion of introducing a centralised model for self-determination certainly carries some internal tension, where schools engage with such models within their local, regional and research networks, there is at least the possibility of maintaining a coherent social project over time while also escaping centralised diktat or unnecessary homogeneity.

Lived experience

I am positioning 'institutionalising' as the most recent stage of development reached by the social project as the time of writing. While the structural contours dominating at this stage can, as I have shown above, be traced in reasonable detail, the dynamics developing *around* those contours are still described only nascently in the preceding chapters. It is thus still too early to map those dynamics in detail, or to speculate about the forms taken by the 'next' stage of development. For that reason, my analysis in this section must be regarded as somewhat hesitant and partial. Yet some emerging themes can be discerned in the preceding submissions and it is worth highlighting those below.

One aspect of the lived experience that is remarked upon in the preceding chapters is a struggle by stakeholders, who—having now firmly grasped that space is not just about architecture or estates investment—wish to conceptualise how new spaces effect their practice and helps them develop their agency. School stakeholders are, over time, developing more confidence and fluency with core ILE concepts; yet doing so has led to frustration where aspects of what is becoming official ideology are not realised in practice. In some cases, practitioners have reflected on a new physical space and concluded that, in Coleman and Thomson's words, it "does not meet the requirements of an ILE" (Ch6). Where everyday discussion comes to emphasise innovation, opportunities, and potential and yet these raised expectations are not realised, the sense of disappointment can be severe. Coleman and Thomson's work emphasise the attendant crises as being about feelings of "dissonance" and a perception that a particular educational discipline (drama education) has been misunderstood and

then “put back in its box”. In some cases, such frustrations critique the very boundaries of the social project, with Eames and Milne, in particular, making a strong case that the extension of ILE work into ‘off-premises’ community spaces remains seriously unfinished business (Ch7). Such experiences seem a potential ground for what Blunden (2010) calls immanent critique: an attempt to develop a project further by holding it true to its own stated principles (p.4).

The lived experience also incorporates a range of struggles concerned with ‘planning’ teaching in advance, and then controlling how events unfold in practice. That many spaces within ILEs are resourced and tailored for specific forms of practice means a greater necessity for booking and timetabling; that teaching is now undertaken in teams brings a need for negotiating pedagogical priorities and teaching content; that groups within open-plan spaces may be engaged in different tasks means that care must be taken to ensure that adequate forms of support are provided. Moreover, advance planning can be important to ensure that avoidance of spatial disruption and rule-breaking (Trask, Ch14). Yet teachers are also aware that teaching is an unfolding interaction and that innovation requires effort and a willingness to experiment. These poles are often experienced as being in tension. As Coleman and Thomson ask, “Tasked with vast amounts of logistical organisation, prior to teaching, where is the time left to innovate teaching practice?” (Ch6). Other poles of tension involve difficulties of allowing others to “take control” (Charteris & Smardon, Ch4) or “managing transitions” between different forms of practice (Nelson & Johnson, Ch12).

Another set of crises relates to the management of those complex relationships between stakeholders which, as the preceding account has emphasised, are increasingly important to the development of the social project. Relations between people around ILEs are occasionally likened, in the preceding chapters, to an “extended family” (Nelson & Rehu, Ch15). While such family-like relations are in keeping with the core concepts and ethos, they do require careful interpersonal management, whether in dealing with interprofessional relationships (Eames & Milne, Ch7) or in allowing students to be “positioned as in charge” (Trask, Ch14). There is also a sense that such difficult issues need to be addressed persistently, over time, or else that the ILE could become seen as a fad with disillusionment setting in (Falloon, Ch13).

Finally, there are crises arising from sources external to the social project. The preparation of this book coincided, of course, with the outbreak of the Covid-19 pandemic, which has had unprecedented impact on educational practice across vast swathes of the globe. It is difficult, at the time of writing, to predict the influence of physical distancing on the development of practice in ILEs, and how that might unfold over the short, medium and long terms. But, as Wright (Ch2) correctly highlights, the history of ‘learning environments’ in Aotearoa New Zealand has been influenced before by health emergencies—which were, after all, used to justify the introduction of ‘Open Classrooms’ in previous decades—and it seems at least plausible that the pandemic might be a harbinger of significant change to the physical estate across the social project.

Conclusion

I began the present chapter by remarking that the issue of ‘learning environments’ has long been slippery and unpredictable. It is difficult even for those scholars who devote attention to the topic—let alone for practitioners and other local stakeholders—to fully demarcate what the term means, and to track or anticipate the sharp turns in policy emphasis or funding. Yet senior policymakers across many polities persist in using ‘learning environments’ as a vehicle for stimulating change, with the international reception of the OECD project of ‘Innovative Learning Environments’ a key case in point. It should be admitted that the social project of *ILEs in Aotearoa New Zealand* has been associated with a period of relative funding stability; the polity’s national government has fairly

consistently supported the initiative over a considerable period of time. Yet that has not meant that the issue has been easy to grasp for those involved, with even the core concepts undergoing development and revision as the project has unfolded.

My overview of ILEs acknowledged that there exists, of course, a rapidly developing body of scholarship on the topic. I categorised such work into three main strands. The first examines the achievement of desired outcomes, thereby legitimating the effort and reinforcing a strong sense of purpose, while occluding differences between settings and how desired outcomes evolve over time. The second examines particular schools using a 'snapshot' approach, highlighting important contextual contingencies and the necessity of struggle, while inevitably treating somewhat statically those wider initiatives framing the work being undertaken in a given school. The third seeks to disaggregate particularly 'important' issues, such as agency or design processes, in ways that offer deep insight while risking fostering a fragmentary understanding of how those issues interact.

In the present chapter I have sought to make a contribution by providing a principled overview of how ILEs have been (and are still being) introduced *across the polity of Aotearoa New Zealand*. My opportunity to do so arises mainly from the privilege of being invited, by the editors, to write a final chapter "summarising" and "signposting" the work in the present volume—which presents a range of insightful narratives, derived in many cases from research in school institutions, from across the polity. By treating the preceding chapters as submissions to a principled enquiry, and by analysing those submissions through a 'social project' lens derived from work in the activity theory tradition, I aimed to assemble a synthesis narrative that would highlight the development of an overall social movement.

My hope is that the preceding sections have adequately summarised the earlier work in the book. Inevitably, my account foregrounds some issues at the expense of others, and I feel I should pre-emptively apologise to those authors who might feel I have overlooked or attached unanticipated spin to aspects of their own analyses; the production schedule of the book did not allow for member-checking. Overall, I sought to trace issues of predicament, concept, ethos, sedimentation, institutional engagement, and lived experience through four disparate moments: the official 'international movement' supported by the OECD; the historical backdrop in Aotearoa New Zealand leading up to the introduction of ILEs; the stage of 'introduction', at which schools are recruited by government bodies; and the subsequent 'institutionalisation' of the social project as it develops its own logic. Below I would like to conclude by making a few overarching comments which, I hope, signpost some pertinent issues requiring further investigation.

With regard to the *predicaments* that 'learning environments' are seen as addressing, there has been a shift away from a historically dominant focus on educational 'inputs'—such as attendance and health—towards issues such as agency. Yet attempts to pose predicaments about broader 'outputs', such as bolstering the geopolitical position of the country, have largely failed to gain traction, while even OECD talking points about agency have been significantly reframed and reinterpreted in more culturally appropriate ways. There seems a need, therefore, for more scholarship exploring those predicaments, whether societal or more local, that genuinely *motivate* ILE stakeholders. It seems plausible that ILEs are being used as a vehicle for 'educationalisation', wherein educational institutions are being tasked, perhaps inappropriately, with solving what are very broad problems within a social formation (cf. Tröhler, 2018). The extent of those predicaments that key stakeholders feel ILEs *can actually address* would thus be a useful topic to unpack further.

The *concepts* of ILEs are clearly undergoing extensive development on an ongoing basis. The 'introductory' stage of ILEs is marked by conceptual framework seriously fragmented between

‘practice’ and ‘physical environment’ issues, which seems both a product of how educational change has historically been managed in the polity and also of the surprising lack of emphasis on the latter in core OECD documentation. There seems a need for more understanding of how pedagogy and physical space can be re-imagined in ways that are *less conceptually separated*, and also—given how ‘ILE’ and ‘QLE’, discussed above, are actually formulated—a need to critically reflect on how framework components are given weight in change initiatives as a consequence of their provenance in ‘international’ or ‘national’ source material.

The *ethos* of ILEs has—to some extent predictably, given the conceptual development it attempts to shadow—demonstrated considerable instability. In particular it has been extensively reformulated between the ‘introduction’ and ‘institutionalisation’ phases. One noteworthy issue has been the attempt to support ‘horizontal connectedness’ during the introduction of ILEs. If anything, stakeholders, in pursuit of following guidance from elsewhere, have perhaps been slightly *too* ready to disparage their own prior expertise, with the result that the sudden loss of vertical relationships has been felt very deeply. While that experience has resulted in an ameliorated ethos during the more recent ‘institutionalisation’ stage, there remains a need to understand how stakeholders, when being recruited into ‘learning environments’ projects, can be supported to better appreciate the value of their existing historical practice *in relation* to newly suggested models.

The largest moment of rupture in the *sedimentation* of artefacts does seem to occur as planned: at the point where the ILE project is introduced, and new stakeholders recruited. After that moment, artefacts are gradually augmented or added, or imbued with more elaborate local meaning. Yet the introduction of such ostensibly well-resourced environments has unanticipated impacts, most noticeably by temporarily submerging that ethos of creative subversion—which Wright (Ch2) calls ‘making do’—that has hitherto been so central to educational practice across the polity. Having been confronted with the fruit of unprecedented financial investment, stakeholders doubtless feel that the ground for creative reappropriation has shifted. This poses, in turn, a range of issues relating to stakeholder agency, with some early indications in the preceding chapters that some teachers are indeed returning to a making do ethos as the project becomes institutionalised. While the present volume provides significant insight into how stakeholders came to read and manage spaces (a core theme, for example, in Charteris and Smardon’s chapter, Ch4), there is clearly a need for greater understanding of the extent to which stakeholders can come together to challenge or re-shape *the direction* of the social project overall over successive stages of development.

Turning to *institutional engagement*, the initial approach to recruiting stakeholders to the project—via policy mandate—is entirely unsurprising, given both prior history in the polity and how the ‘international movement’ seeks to influence educational systems. Yet it also produces outcomes of occasional stakeholder rejection that are not merely *also unsurprising*, but which also closely mirror prior historical precedents documented by Wright (Ch2). Resultant attempts to render ILE schools more obviously a part of their surrounding community, and to devolve aspects of leadership, are doubtless a step forward from the point of the stakeholders involved; and it is also at this point that the social project begins to develop in ways that are more convincingly immanent (i.e., arising from the internal experiences of those participating and their attendant attempt to foster change). Yet, conversely, such attempts at localisation also threaten to fracture the ILE project that has been, so far, developing across the polity. There is, therefore, a need for more investigation of the extent to which attempts to form local and regional partnerships with communities, other schools, universities and the *Tomorrow’s Schools* programme work to preserve a coherent identity for the project; or, conversely, the extent to which a process of forking has taken hold that might result in a range of disparate social projects emerging out of the present initiative in the medium term.

In tandem with this priority arises a need to better understand whether those school institutions recruited into the social project later must necessarily travel through the 'introductory' stage first before attempting 'institutionalisation', or whether they can learn from the experiences of others to leapfrog some of the early crises. As established above, some schools—primarily those embedded in Māori communities—do seem able to engage with community stakeholders more quickly than others. Perhaps institutional support within the project can help other project recruits to avoid some of the more egregious crises that others have experienced and transcended already.

Finally, I would like to comment on the different ways in which space mediates educational practice. I have, as mentioned earlier, written about that topic several times before—associating different forms of mediation with different research programmes (Bligh & Crook, 2017) or conceptualising them as different ways of thinking and talking that stakeholders need to discuss and consider together (Bligh, 2019a; 2019b). What has become clear in the preceding account, however, is how distinct forms of mediation have dominated conceptions of practice *at different moments* as the social project has unfolded: with the 'introductory' phase dominated by "enabling constraints" views of space, whereas 'institutionalisation' stage has been more concerned with mediational mechanisms concerned with feeling, representation and ownership. Further exploring how different aspects of the ILE environment come to mediate practice in different ways as the social project matures would represent a significant contribution to the emerging scholarship on learning environments.

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