



Shifts to Learning Eco-Systems: Principals' and Teachers' Perceptions of Innovative Learning Environments

New Zealand Journal of Teachers' Work, Volume 12, Issue 2, 149-171, 2015

DIANNE SMARDON

University of New England, Armidale, Australia

JENNIFER CHARTERIS

University of New England, Armidale, Australia

EMILY NELSON

Eastern Institute of Technology, Hawkes Bay, New Zealand

ABSTRACT

Innovative Learning Environments (ILEs) with their origins in OECD literature, propose to revolutionise education as we know it. ILEs draw on a large body of literature: constructivist learning theory; distributed leadership; personalised 21st century learning; blended learning (digital); and, future-focused education. Despite an increasing body of research in the area, there appears to be confusion around the concept of ILEs in Aotearoa/New Zealand schools. This article reports on survey research with 126 questionnaire respondents. These principals and teachers, drawn from a random sample of New Zealand schools, commented on the implications of ILEs for teaching and learning in their contexts. This article explores the theoretical and philosophical resources that educators bring to this concept and its implications for their practice. Five themes regarding ILEs emerged from the responses: lack of clarity; we do it already, the significance of material spaces; pedagogical implications; and, the politics around ILEs. The authors ask whether ILEs are just another neoliberal shift in education or an opportunity to respond innovatively to the fundamentals of schooling.

INTRODUCTION

Innovative learning environments (ILEs), originally called 'modern learning environments' (MLE) in Aotearoa/New Zealand, have been described as powerful physical, social and pedagogical learning contexts that enable learners to thrive in the 21st century (Organisation for Economic Co-operation and Development (OECD), 2013). ILEs have their origins in a project of the OECD's Centre for Educational Research and Innovation (CERI) on the pedagogies required to address the projected needs of knowledge economies. Findings from CERI studies highlight a "systemic approach to technology-based educational innovations in schools can contribute to quality education for all"

(Fainisi, 2014, p. 175). This article reflects on the political origins of ILE ideology and considers their implications, as reported by educators beginning to engage with the official policy shift to ILE, signalled through Ministry of Education strategic intentions (Ministry of Education, 2014b).

The New Zealand Ministry of Education (MOE) has zealously embraced ILEs as “the complete physical, social and pedagogical context in which learning is intended to occur” (MoE, n.d. para 1). The Ministry’s migration in terminology from MLE to ILE has been a strategic one, in that not only is the new preferred term in line with international literature but also it occurs in light of a “growing discomfort in New Zealand with the term MLE” (MoE, n.d. para 3). The authors suggest that perhaps the term “modern” does not capture the evolving and shifting focus that is responsive to context and student needs. Rather, “modern” conjures up a static conception of time and place time as the present, now, a fixed point in time. Conversely, we view that “innovative” suggests creativity, a shift where one does not stay in one place. To “innovate” suggests that one takes an idea, concept or approach and makes it different and better.

The discourse of 21st-century learning emphasises an alignment in education and workplace practices and, therefore, the design of these ILE facilitate the sort of human interactions we would expect to see in modern work places (Benade, 2015). ILE can be seen as a move to “reculture” and “restructure” (Fullan, 2014, p. 226) education practices in light of these projected human interactions. Traditional classroom design is criticised as suggestive of factory-style learning (Osborne, 2013). Instead of the single cells of the ‘industrial age’ traditional classroom, described by Hattie (1999, p. 6) as “egg crates”, “multiple smaller and larger spaces are conceptualised that serve multiple functions allowing a variety of private, communal and small group settings which simultaneously serve technology and environmental sustainability purposes” (Benade, 2015, p. 939).

Importantly, and as evidenced by a shift in Ministry of Education stance, the migration in terminology from “modern” to “innovative” highlights an impetus to reframe the ILE initiative as pedagogical rather than material. The move is an extension of the vision articulated by Gilbert (2005) in *Catching the Knowledge Wave*, which attends to future-focused learning and associated pedagogical shifts. There are spatial and temporal considerations that have been described as an “anytime, anywhere, anyhow” approach to technology-enhanced learning (Koelmel, & Würtz, 2007). The focus on bespoke education practices that blend digital technologies and resources, contextually relevant assessments and a focus on 21st century skills, was later rebranded as “personalised learning” (Heller, Steiner, Hockemeyer & Albert, 2006).

We are three researchers in pre-service teacher education who share a common background of working with practitioners in New Zealand schools, facilitating professional learning and development. Although we envisage rich and responsive practices for the embrace of ILEs, we are cautious to locate educational shifts within the wider socio-political milieu. For this reason, the perceptions of practitioners, both school principals and teachers, is of great import.

Noting the creative and generative potential of ILEs, it must be pointed out that the New Zealand initiative is driven through international policy borrowing. Therefore how the key tenets of ILEs are enacted in New Zealand

schools is of paramount importance. We commence by exploring the literature on ILEs and outline the survey research project. Principal and teacher data are analysed to offer a snapshot of practitioner perceptions of ILEs.

ILEs, 'LEARNING ECO-SYSTEMS' AND 'COMMUNITIES OF SCHOOLS.'

Although it is argued that spaces shape sociocultural relations, “social practices, formal instruction and informal social interactions change the nature, use and experience of space” (Blackmore, Bateman, Loughlin, O'Mara & George, 2011, p. 3). Pedagogic interactions are therefore co-produced in relational spaces. Blackmore, Bateman, Loughlin and O'Mara (2011) in their review of literature observed a range of gaps in the research literature on classroom ILEs. They note that there is little known about how design, furniture and pedagogical use interrelate and impact on student learning; how teacher professional identity is effected; how investment is most likely to lead to improved social, affective and cognitive student outcomes; the effect of budget considerations in relation to the capacity to maintain and upkeep learning spaces—for example, furniture and technologies; and the impact of different spaces (indoor/outdoor), anthropological and social aspects of design, sensory stimulation, context, schools within schools, harmony and views and vistas, functional zones, circulation patterns and supervisable spaces. In short, there is much undetermined in regard to how ILEs will unfold in the policy context in which New Zealand schools are working.

The literature above is derived from an Australian case study into ILEs that commenced in August 2010, in twelve Victorian schools. These Australian schools self-identify as ILEs. The authors of these reports were particularly interested in how “learning in an ILE is mediated spatially and temporally with particular regard to the use of a range of technologies” (Blackmore, Besteman, Cloonan, Dixon, Loughlin, O'Mara, Senior, 2011, p. 3). Since these 2011 publications, a growing number of OECD research initiatives have been commissioned in the area of ILEs (2013; 2015). OECD (2015) Case study research compiled across 25 countries, regions and networks, suggest a focus on “deschooling” emerges in relation to ILEs. Deschooling prioritises the development of “*learning eco-systems*” (2015, p. 11). In a learning eco-system there are interdependent combinations of different providers and organisations who play different roles with learners, in differing relationships over time. This fluidity of provision, generative in its possibilities for real world contexts and applications for learning, could also be read as a further move toward privatising and commercialising schools in an education ‘marketplace’. When education is conceptualised as a commodity, it pre-supposes a society where “highly individualised subjects compete for limited resources while the technologies of government work on them as a population to become productive” (Davies, 2009, p. 29). It is significant for educators to be mindful of the relationships between ILE pedagogies and practices, and the wider sociopolitical projects to which these contribute.

Underpinning ‘learning eco-systems’ are seven ‘learning principles’ that, when taken together, constitute an ILE pedagogical framework. These learning principles comprise engagement, social and collaborative learning, affective awareness and learner motivation, appropriate challenge, formative assessment, and horizontal connectedness across disciplines and contexts

(OECD, 2010). The involvement and participation of all stakeholders in a learning eco-system are carefully considered. For example, student involvement through student voice in New Zealand settings has been connected with governance partnerships, schooling improvement, learner achievement and agency (Charteris & Smardon, 2015; Nelson, 2014).

An OECD report in 2013 adds three dimensions to the initial seven ILE learning principles developed in 2010. Firstly, schools are to innovate their pedagogic core (see Fig. 1.).

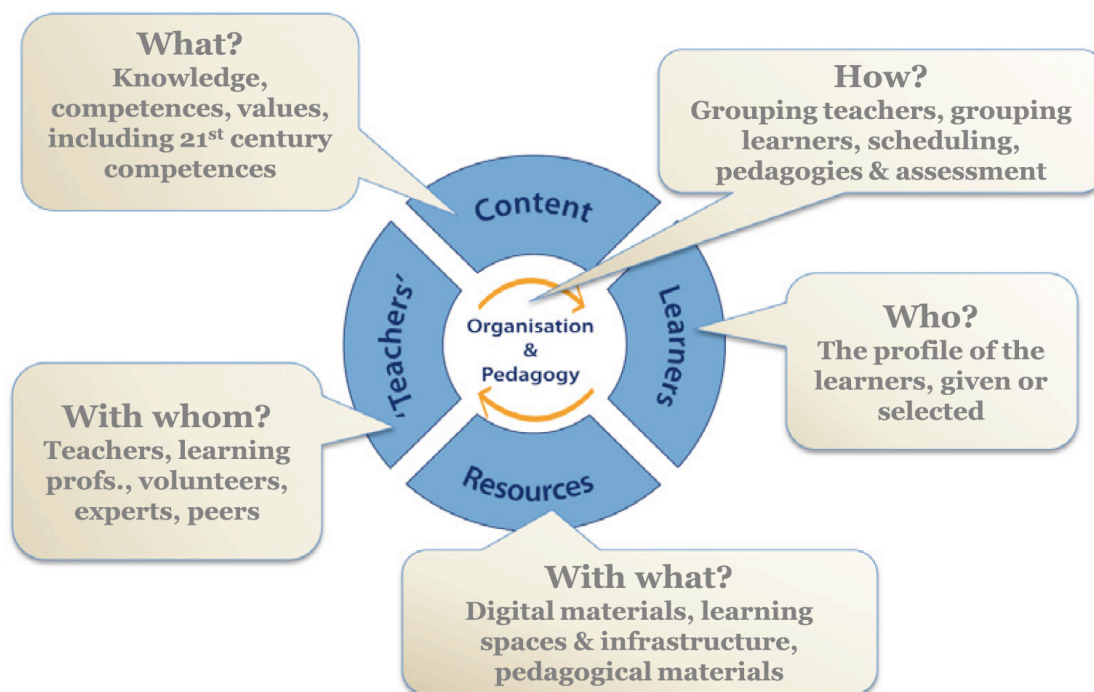


Fig. 1. The Pedagogic Core — Elements and Dynamics (Istance & Kools, 2013, p. 49)

It is suggested that a focus on the pedagogic core requires rethinking the spatio-temporal schooling context. This requires an examination of how schools redefine and re-work the notion of learners, educators, content, learning resources, and the dynamics that connect those core elements (Istance & Kools, 2013) (See Fig. 2.). In the New Zealand context, the view of teachers as learners through the *‘teaching as inquiry’* (Ministry of Education, 2007) process strengthens this conceptualisation. These dynamics comprise pedagogy and formative evaluation, use of time, and the organisation of educators with whom learners are engaged.

Secondly, schools become “‘formative organisations’ with strong learning leadership—with vision, strategies and design, all closely informed by evidence on learning and self-review” (OECD, 2015a, p. 25). Formative leadership, as the knowledge, skills and dispositions to promote effective and systematic evidence-informed processes across all levels of the school, cannot be taken for granted in school leaders. There is a need to foster formative leadership through professional support and mentoring.

Thirdly, it is recommended that schools open up partnerships to create synergies that enhance “professional, social and cultural capital” within “families and communities, higher education, cultural institutions, businesses, and

especially other schools and learning environments” (2015, p. 19). A question can be raised here as to what extent these partnerships present a vision of education provision to suit privatised corporate interests. This commercialism potentially influences and commodifies curricula, schooling materials and student future pathways.

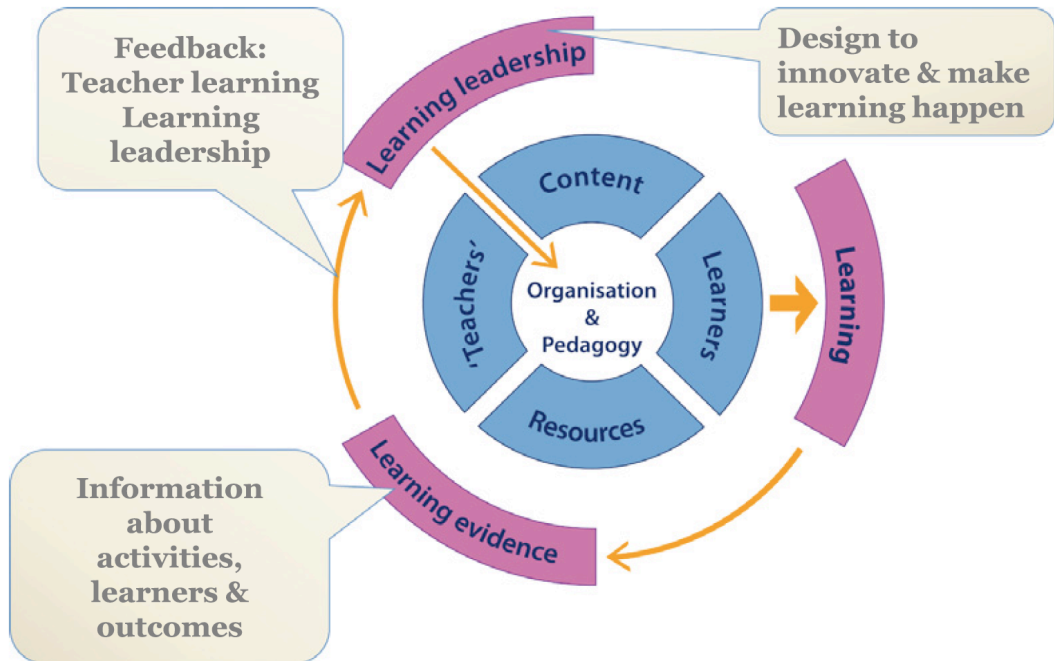


Fig. 2 The Design/Redesign Leadership Circle (Istance & Kools, 2013, p. 5)

The 2015 OECD report points to conceptualising education provision as a “learning eco-system” (2015, p. 11). Rather than thinking about institutional architecture at the levels of classroom, school and system, it is proposed that consideration is given to the learning environment level (micro), the meso level as networks and communities (deemed important for sustainability) and the meta level as an aggregation of environments that may include numerous systems.

It is therefore not a stretch to conceive the current “Communities of Schools” (CoS) policy shift as a step toward the type of governance provision that reflects a meso level initiative within the 'learning eco-systems' conception. With \$359m in funding available over the first 4 years of 'Investing in Educational Success' (*IES*) (and \$155m a year after that) the MoE (2015a) describe Communities of Schools as the 'engine room' of their *IES* initiative:

Groups of schools and kura will come together into groups of around 10 schools which will represent the 'pathway' for students from primary to secondary school ... New roles [are proposed] for some of our most skilled teachers and principals, better enabling them to share their knowledge and expertise with colleagues. This will give teachers a genuine choice between going into management and staying in the classroom, and give principals more career stretch. (2015a, para 13-14)

Cross school collaboration around the innovative professional development and implementation of learning technologies has been occurring since the 1980s (Starkey, & Stevens, 2007). Learning eco-systems sound inclusive and organic in nature and the notion connotes a ground-up initiative. The insertion of a bureaucratic layer of administration is, however, an underlying neo-liberal tendency. This is a reterritorialising move from the politics of devolution that swept through New Zealand with the 1988 Picot report (Report of the Taskforce to Review Education) and the 'Tomorrow's Schools' radical reorganisation of educational administration. In this period managerial technologies enabled the re-regulation of central control (O'Neill, 2015). Almost thirty years after principals effectively became CEOs of their schools, the principal role is being potentially diminished with a centred governance model similar to that of superintendents in American schools. In 2010, Wylie almost prophetically noted that self-managing schools could be positioned within school districts.

This could maintain the undoubted strengths that a focus on individual school culture and decision-making can have if it is anchored within a supportive collective, and sustained by the ability to recruit and retain good teachers – a systemic issue as well as an individual school responsibility....Such an approach would enable schools to work together and share resources, with principals *who take joint responsibility to work together on thorny* local issues, including equitable enrolment schemes that do not exacerbate social segregation. It would also require principals to have clear lines of accountability that are primarily formative, or developmental – but with repercussions for non-performance. (Wylie, 2010, p. 23. Emphasis added)

While we are mindful of the OECD impetus to reframe education practices with a view to address conceptions of future focused learning, 'holistic' practices and the construction of schooling spaces that resonate with 'working environments', we question the political motivations that discredit some schooling practices describing them as an outmoded 'factory model' or outdated 'habits and practices'. These arguments are embedded in powerful "digital competence rhetorics" (Ferrari, Punie & Redecker, 2012, p. 80) that focus on a certain perception of 21st century skills.

The *Investing in Education Success* policy references ILEs in a targeted attempt to raise achievement by improving teaching practice across New Zealand (MoE, 2015a). With the intention of teachers working together and benefiting from each other's knowledge and experience, the shifts in practice associated with ILE will need to be seen as necessary and different for practitioners to engage. Further, in an online showcase the New Zealand Ministry of Education (MoE) provide Case Studies of 'happy narratives' with the claims made on the strength of the implementation of initial ILEs. In a publication detailing impact of the initiative in one particular school the following claims are made:

- Students are motivated, 100% engaged and achievement levels have improved.
- Attendance is high and behavioural issues are almost non-existent.
- Students have a voice in developing what is happening in the school—they helped develop the inquiry model. The classroom is 'learner centred' not 'teacher centred.'
- There is a strong child centred philosophy across the school. (MoE, 2014a, para,6)

The discourse of global competition is evident in the suggestion that “Schools all around the country are embarking on new and innovative teaching and learning approaches...” and the case studies provided “have been designed to assist schools to understand these new methods and keep up with the pace of change throughout the world” (MoE, 2014a, para, 1). Both the discourse of competitive market relations (O'Neill, 2015) and school learning networks are endorsed by business interests (Patterson, 2014) as ways to rein in self-managing schools.

Many schools, particularly under New Zealand's self-managing model, don't appreciate being told what to do. LCN [Learning Change Networks] represents an appropriate balance of top-down and bottom-up models of schooling improvement – a kind of light-touch bureaucracy. It provides an adaptable framework and some broad defining characteristics, but it is largely up to each LCN to drive and embed the change they would like to see. (Patterson, 2014, p. 9).

Acknowledging this “structure-freedom continuum”, ‘New Zealand Learning Change Networks’ (LCN) have been set up as knowledge sharing networks that enable schools to collaborate with competitive systemic structures (Patterson, 2014, p. 9). Since 2011, LCN have blended schooling improvement, cultural responsiveness and blended learning. The strategy “seeks to learn from a period of widespread experimentation to bring together schools, kura, communities, professional providers and ministry officials to achieve targets for learner achievement” (OECD, 2015b, p. 145). By 2013, one fifth of NZ schools and kura (500 of 2400) and associated communities were targeted for inclusion in LCNs (Annan & Talbot, 2013). Just as curriculum and assessment offer levers for control over educational decision making, it appears that the LCN intervention, in its guise of a light touch sets up a further mechanism of control over the schooling sector. To learn more about the perceptions of New Zealand educators on these policy changes underpinning the push for ILEs, we undertook the following study.

THE STUDY

This study is part of a larger investigation where a mixed type (open and closed questions) survey into professional learning was instigated (Braun & Clarke, 2006). After ethical permission was given through the University of New England, participants received an email invitation providing a link to an online

survey, and 215 participants across New Zealand primary and secondary schools agreed to participate. Of these 215 participants, 165 teachers and principals responded to a question on the implications of ILEs in their school context. This study focuses on the qualitative section of the teacher and principal survey. A question on innovative learning environments was framed as follows:

The NZ government describe 'Innovative Learning Environments' (ILE) as "the complete physical, social and pedagogical context in which learning is intended to occur." What are the implications of the implementation of ILEs for your school?

This study centres on the results of the qualitative question above. Undertaking a theoretical thematic analysis, we identified emic themes that emerged from our interpretation of the data. A 'theoretical' thematic analysis provides "less a rich description of the data overall, and more a detailed analysis of some aspect of the data" (Braun & Clarke, 2006, p.84). To generate themes the researchers each coded the data separately for categories that emerged. We then met to share the coding categories, define these, and illustrate each with quotations from the survey data. We worked towards consensus around our coding scheme through dialogue and applied the emergent scheme to the body of the survey data around the ILE question. Once the data were coded in this way five themes emerged that we present in the next section: lack of clarity, a sense of already doing it, the significance of material spaces, pedagogical innovations, and the politics of ILEs. In the following, we define and illustrate the five themes with indicative responses from teachers and principals that, taken together, demonstrate how teachers and principals are interpreting ILEs in relation to potential implications for their practice.

LACK OF CLARITY

Not all of the principals and teachers were familiar with the ILE terminology. This may indicate that they were unaware of the policy or that they may have identified more readily with the term 'modern learning environment', terminology that has circulated within the New Zealand educational environment over a slightly longer timeframe.

I have not heard of ILE until this survey. This is obviously an area I need to work on. (Principal)

Some principals and teachers expressed confusion about what defines ILEs and the implications of ILEs for education in their contexts.

I am not sure, not too sure what ILE is! (Principal)

Buildings being modified, Staff thinking that this is a return to days gone by and it didn't work then. (Principal)

A lack of space in our school and our teachers have not had a full grasp of the concept. (Principal)

These responses suggest an association among some principals with ILEs as a predominantly spatial innovation and a link to historical open plan teaching in New Zealand. The responses also signal the importance of professional learning accompanying expected shifts in educational practice, as has been the case preceding major curriculum developments in New Zealand such as literacy, numeracy and assessment.

With spatial arrangements receiving attention in some schools before pedagogical concerns related to ILEs, some teachers expressed concern that they may not be practising in line with the pedagogical intentions of ILE. This seemed to be exacerbated due to a lack of targeted ILE professional learning.

I am in an ILE environment for the last two years but we are yet to have any pedagogy on using it effectively in the classroom. We have just muddled through with our own ideas but I am pretty sure we are missing some key ideas??? (Teacher)

The 'lack of clarity' theme indicates that property levers related to ILE policy in some cases, have preceded pedagogy and professional learning to support teachers and principals to engage sufficiently with related educational philosophies in order to generate satisfying practice.

WE DO IT ALREADY

Many principals and teachers articulated that they engage in ILE approaches already.

This is consistent with the approach we use. (Principal)

We are pretty much working in this way already. (Principal)

Isn't this what we do already and have always done? (Teacher)

Just a new name for what we have always known. Create the right culture and good learning happens. Was known 2000 years ago and written about by Quintillian¹. (Principal)

These responses highlight one of the challenges of implementing ILEs into existing school cultures—after nearly three decades of Tomorrow's Schools, staff within schools have developed their own philosophies and focused professional learning to address the needs of their students, their communities, and their own professional trajectories. This professional autonomy has led to the development of practice that in many ways might embody the principles being packaged as ILE pedagogy.

¹ Quintillian (c. 35 – c. 100 CE) was a teacher and writer. His work on rhetoric provides a significant contribution to educational theory and literary criticism.

Some principals made the observation that innovative learning can still take place in the traditional classroom spaces, challenging a concomitant focus of ILEs as necessitating collaborative teaching spaces that encompass multiple classrooms

We already exist in an ILE. We are a traditional single cell classroom school but that does not mean that the learning occurring is not innovative! (Principal)

This principal also commented that a policy initiative is not necessary in their school, signalling a potential clash between an ethos of self-managing schools and the re-centralising aspects of ILE as a political lever in education

We have always pushed this concept, and do not need any mandate or directive from the government. (Principal)

Respondents also critiqued a one-size-fits-all perception of ILEs, contending the varied disciplines have different social, historical and pedagogical traditions that cannot be easily homogenised.

I believe as a music teacher that my environment for learning has always been different. We use small spaces for different activities. Separate rooms for small groups which requires the students to manage self much of the time. My role becomes that of facilitator and mentor rather than teacher. So innovative learning environments are not unusual in my teaching practice. (Teacher)

These comments hint at a range of interpretations of ILEs. It must be noted that there are aspects of the ILE literature that highlight a potential departure from current New Zealand schooling practices at micro, meso and meta levels. That said, many schools have embraced innovation to adopt innovative elearning classroom practices and strive to 'future proof' their curricula. How the schools' espoused practices and practices in action correspond remains to be studied.

THE SIGNIFICANCE OF MATERIAL SPACES

While supplied with a definition of ILEs that encompassed spatial and pedagogical aspects, many of the leader and teacher respondents primarily focused on the physical aspect of ILEs.

The physical environment is our biggest challenge. (Principal)

My school is not set up in a way where we can create innovative learning environments that are open, however for us the implication is working through ideas of implementing this within the single cell network. (Principal)

This teacher's comment asserting the importance of the teacher in any instantiation of ILEs seems to indicate a perception that ILEs are primarily about the physical environment.

I think that in some ways a learning environment can change the way that you think about learning, but this will not necessarily create the actual learning that might happen for the student. I still think that the teacher will be the major impactor (alongside parental involvement) that will create better learning outcomes for learners. (Teacher)

Issues around current resource provision in the form of classroom design and learning technologies are considered a barrier to ILEs by some principals. In particular, concern was expressed regarding the investment required, the lack of funding available to them and the age of buildings.

It would be fantastic to have ILEs in every school however, in reality though we don't! Our schools are often limited in one or more of the components...either the physical classroom environment (because we are stuck in "old-style" classrooms), or the ICT equipment is outdated because we simply can't afford to update it. We do however have more control over the pedagogical practice. (Principal)

We are an old school with no increase in property plan money and needing huge investment in order to become ILE. (Principal)

Sounds great in theory, but the reality is that budgets and available work time are hugely constrained. We are not able to change everything we would like to be able to change just because we can see that it would be an improvement. (Principal)

These responses indicate responsiveness of central resourcing may be out of step with the speed of uptake in relation to ILEs in schools and a resulting gap between normative ideals and actualities. Respondents appeared to link spatial arrangements of ILEs to the qualitative experience of learning for students, identifying a range of potentially negative effects,

Noise factor. Not building an anchor relationship with one adult - the go to person who really cares about me. Learning styles of those who need a quiet, solo, small group learning facility. (Principal)

The example of noise as a feature of shared spaces was identified as one aspect that could impact negatively on student learning and provides an illustration of how teachers might respond in ways that do not align with the pedagogical ideals of ILEs.

Children and teachers being compelled to share teaching and learning spaces. Noisy learning spaces. (Principal)

These factors of noise and collaboration seem to engender conservative responses in teachers such as a retreat to individual approaches, at odds with the intent of ILEs pedagogically.

A new building we have moved into this fortnight is a large, open-plan environment from years 1 to 13. Practice should be more collaborative, however in the workshop, noise and so on means that individual work will be more likely. (Teacher)

In some cases responses indicated that the shifts in spatial arrangements and pedagogy that are advocated in ILEs put school personnel at odds with the aspirations of their communities.

We are very focused on modern learning practice. Our school design will possibly prohibit the development of shared teaching spaces in some areas and this is something our community are very cautious about as having four year levels in one learning space is not seen as desirable in our community. They chose our school because we are big enough not to have to do this. (Principal)

PEDAGOGICAL INNOVATIONS

Pedagogical comments made by teachers and principals framed a link between the pedagogical and the physical, sociocultural and innovation.

Positively, the outcomes for each learner becomes the responsibility of all involved with the child, teachers are more focussed on individual needs and seeking student voice and accountability for their learning. (Principal)

Relational pedagogy was identified as vital within ILEs that take account of Tātaiako (cultural competencies) and the development of manaakitanga (an ethic of care) and whanaungatanga (the connectedness of people) (Ministry of Education, 2011) in classrooms and beyond.

We are a very poor area and mostly Māori. Our students need the relationship of the teacher as the key element in successful learning. In many of these ILE spaces I see the relationship becomes secondary. I see the lost children and the disengaged. I have not been able to locate any research that shows that these spaces have resulted in increases in achievement. I have read that as time goes on the increased engagement disappears as well. (Principal)

Some responses encapsulate the challenge of differentiating and personalising curriculum in ILEs.

I'm not a fan [of personalised learning] - I like going with the kids in my class not what we pre-decide is best for the majority. (Teacher)

Letting go of possessions and areas [is challenging]. Not being able to control the whole environment. [Also] knowing children and their needs -being able to fulfil more of their needs. (Teacher)

Pedagogy, sociocultural and relational concerns were identified by some respondents as primary considerations above any material arrangements.

The staff need to be aware of the pedagogy and committed to implementation of the ILE context. It is not about the furniture or physical classroom environment. (Principal)

[F]or many teachers to see the value of the open plan classrooms...[requires] a change in mindset....Student directed learning, self-management skills and student self-motivation [require a]...change in teachers thinking and training will support this. (Teacher)

I would hope all learning environments aim to be innovative, including classic single cell classes. Innovation is a mindset not limited by physical spaces.

There was importance placed on time for collaborative approaches to PLD and the strengthening of teachers' pedagogical base.

The shift to teaching in an innovative learning space takes building an effective team and a new approach. The time to build capacity and organisation within the existing school calendar is really difficult. (Principal)

We are working to develop a strong pedagogical base for our teachers. (Principal)

The comments below highlight a valuing of pedagogical innovation. ILEs are linked with differentiation (for students and communities) and teaching to students' individual needs.

This is an exciting opportunity to teach to the needs of the individual. (Principal)

Flexible way to work for students and teacher, allows for different teaching and learning styles. (Principal)

There was a degree of flexibility and a rethinking of the elements of the learning eco-system.

Our school is at the beginning stages of ILE. We have been working as a school on what effective pedagogy looks like in an ILE and now are moving onto changing our classrooms to fit this model. (Principal)

The ILE gives us a framework to continue to work on aspects of our practice, curriculum and pedagogy i.e personalising learning, 24 hour access, [and] integrated curriculum. (Principal)

POLITICS OF ILEs

A range of views from principals expressed caution in accepting the rhetoric of 21st-century learning, calling for credible research and questioning the motives behind the initiative. There is a perception that there is little research evidence to support ILEs and the initiative underpinning the fiscal drive associated with building compliance.

I have deep reservations about the effectiveness of modern learning environments - so called - and am cynical enough to wonder if building costs are part of the push for this "new" pedagogy. (Principal)

A complete disaster. ILEs might make sense for staffing and property budgets, but educationally (in my view and, admittedly, without any 'data') are a nonsense. We are staying well clear of such innovations and am yet to see any genuinely trustworthy, valid research to the contrary. (Principal)

Having provided accounts of teacher and principal interpretations of the politics of ILEs, the pedagogical connections, material considerations and general perceptions, we now turn to discuss implications for schooling ecosystems in Aotearoa/New Zealand.

DISCUSSION

The findings of this study suggest there are grassroots, school-initiated processes of professional learning and development underway that are compatible with the nuanced challenges of implementing ILEs but they are in danger of being over-shadowed with a conflation of ILEs with building changes. Many of the responses to the question about teacher and principal perceptions of the implications of ILEs are not particularly surprising. They are reminiscent of comments from practitioners in the face of change that the researchers have encountered in schools working as teacher educators.

The discourse of individualism emerging in the data (e.g. teaching “to the needs of the individual” and “personalising learning”) can be aligned with the neoliberal influences that frame schooling exclusively for human capital production. This also emerges, however, in tension with the emphasis given by some principals and teachers to bicultural values embodied in Tātaiako. This suggests that any approach to ‘personalised learning’ enacted in New Zealand ILEs will need to address the bicultural tenets of the New Zealand Curriculum (Ministry of Education, 2007) and the broader national context.

Although the respondents did not necessarily acknowledge the availability of research on the efficacy of ILEs, many facets of the initiative are well researched (OECD, 2013; 2015). There is much research on pedagogies

underpinning ILEs in the form of enduring and seminal progressive educational theory and constructivist approaches to learning (Schreiber & Valle, 2013; Yildirim & Kasapoglu, 2015). Student voice, embedded in the language about student ownership of learning and independent learning, and facilitated by digital and e-platforms is argued outside the ILE space to support student engagement and belonging, with learning and school (Nelson, 2014). Noting the participant comments above that seek additional research material and engage in critical analysis of the ILE initiative, we suggest that educators further question *how* social, cultural, pedagogical and fiscal restructuring will serve their communities and their children.

Whilst the data reported on in this study is limited in its scope, being one survey question, the principal and teacher responses do reflect a wide range of perspectives on both the value and pathway for strategic development of ILEs in New Zealand school settings. There are vastly different conceptions of what the initiative is about. While some practitioners make connections with the 'open plan' classrooms of the 1970s, others are unsure what ILEs are, and many principals and teachers are assured that they are already down the path of change yoked to ILEs.

Since schools have been self-managing since 1989, with considerable latitude in curriculum and personnel decisions (Wylie, 2011), it is interesting to consider how these proposed changes to learning eco-systems will impact on school structures and leadership. The learning eco-system architecture proposes schooling reform on a scale unseen in New Zealand since the 1988 *Report of the Taskforce to Review Education* (The Picot Report). Arguably, ILEs could have as much impact as these previous reforms. Therefore, we suggest that educators take the opportunity to critically examine the implications for their contexts, alongside those whose interests they serve. As Smyth (2012, p.85) reminds us, the work of educators is a political project that is inherently affiliated with organisations associated with global economic interests:

The work teachers do makes them far from innocent in the process by which the state produces and reproduces inequalities, social hierarchies and social stratification among students and in society in general... [T]eachers are... caught up in this web of complexity in the way in which they do not have autonomous control over their work, which is being largely determined at a distance from classrooms through centrally devised and imposed curriculum frameworks, standards, testing and other accountability regimes. In other words, teaching is increasingly being shaped and controlled by a managerial class that receives its ideological orders from global predators like the OECD, World Bank, IMF, which then warehouse these ideas through business councils and roundtables who constitute the major source of consultancy and educational advice to governments.

As ILEs are an OECD initiative, they reflect the interests of a global economic movement. While it appears that there is some critique of the ILE policy, it is unclear from this survey how the principals and teachers read the underpinning politics. We envisage that indepth interviews with educators would furnish more detailed information regarding their recognition and understanding of the politics driving this initiative.

Many of the comments above from teachers and principals associated ILEs primarily with the physical changes required in school environments. This linkage is understandable with many large-scale building projects underway. Likewise, the findings highlight that principals can experience tension about resourcing and concern regarding the availability of funds, despite the MOE stated objective that all schools will be ILEs by 2020. Although ILEs are well underway in New Zealand schools, few educators expressed interest in the change to the core elements (content, learners, teachers and resources) described in the 2015 OECD report. The impetus to rethink and innovate who learners are, who educators may be; approaches to content and resources, can extend the reach of the learning environment. While digital technologies in learning are key enablers, the impact of technology is under-represented in the data. This is surprising given the e-learning movement functions as a pre-cursor to modern, then innovative learning environments. Although the physical remodelling of learning spaces is an element of ILEs, the word 'environment' like 'modern' conjures up images of remodelled classrooms and beanbags. Many of the leader and teacher practitioner responses did not allude to meso or meta levels of the learning eco-system (OECD, 2015). This omission of meso and meta levels of the 'learning eco-system' begs a question about the support schools are receiving to process research concerning initiatives to embrace and drive a robust and pedagogically defensible change process.

CONCLUSION

A predominant focus on producing citizens who contribute to the economic positioning of New Zealand, aligns with the powerful discourse of global capitalism that influences national (between schools) and international (between countries) competition. The discourse of 21st-century learning leverages the ubiquitous fear that the future of New Zealand and its children will be jeopardised if New Zealand lags behind the rest of the world in pedagogical innovation, use of digital technologies and, importantly, student achievement. Nevertheless, as educators we remain cognisant of the potential of innovative change in achieving the wider social justice goals of education, not merely those that are based on economic aspirations.

Speaking particularly in the context of education leadership (developing and transforming leadership capacity), Smith (2009) argues for school leaders to be mindful to "the politics of distraction...[that prevent] one from concentrating on the real issues at hand" (p. 9). Although Smith particularly highlights the need for educators to engage in decolonising practices, the politics of distraction need to be carefully scrutinised in the case of ILEs. What is behind this potentially wide sweeping transformational conception of ILE teaching and how will this vision for education transformation impact on the socio-economic relations with, and across, schools and communities?

In a time of fiscal constraint and contestable professional development funding, schools can be left to get on with professional learning and change development, to come up to speed with little support (Smardon & Charteris, 2012). On the other hand, specifically targeted funding initiatives, for instance ILEs and Communities of Schools, need to be read for the wider structural shifts to which they contribute. This is indeed a time to be mindful of how large scale,

global economic initiatives are operationalised in Aotearoa/ New Zealand schooling.

ACKNOWLEDGEMENT: The authors thank the New Zealand teachers and principals who contributed to this research.

Manuscript Submitted: November 30, 2015
Revised Manuscript Submitted: February 10, 2016
Revised Manuscript Accepted: February 11, 2016

REFERENCES

- Annan, B., & Talbot, J. (2013). *New Zealand System Note*. Retrieved: 21 September, 2015 from <https://cdn.auckland.ac.nz/assets/education/.../innovativelearning.pdf>
- Benade, L. (2015). Bits, bytes and dinosaurs: Using Levinas and Freire to address the concept of 'twenty-first century learning'. *Educational Philosophy and Theory: Incorporating ACCESS*, 47(9), 935-948. doi: 10.1080/00131857.2015.1035159
- Blackmore, J., Bateman, D., O'Mara J., & Loughlin. J. (2011). *Learning Spaces Literature Review*. Retrieved: 15 October, 2015 from: www.learningspaces.edu.au/docs/learningspaces-literature-review.pdf
- Blackmore, J., Bateman, D., Loughlin, J., O'Mara, J., & George, A. (2011). *Research into the connection between built learning spaces and student outcomes*, Department of Education and Early Childhood Development, East Melbourne, Vic. Retrieved: 15 October, 2015 from dro.deakin.edu.au/eserv/DU.../blackmore-researchinto-2011.pdf
- Blackmore, J., Besteman, D., Cloonan, A., Dixon, M., Loughlin, J., O'Mara, J., Senior, K. (2011). *Innovative learning environments research study*. Department of Education and Early Childhood Development & Deakin University Retrieved: 15 October, 2015 from www.learningspaces.edu.au/docs/learningspaces-final-report.pdf
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. doi:10.1191/1478088706qp063oa
- Charteris, J. (2013). Learner agency: A dynamic element of the New Zealand key competencies. *Teachers and Curriculum Journal*, 13, 19-25.
- Charteris, J., & Smardon, D. (2015). Teacher agency and dialogic feedback: Using classroom data for practitioner inquiry. *Teaching and Teacher Education*, 50, 114-123. doi:10.1016/j.tate.2015.05.006
- Czerniawski, G. (2012). Repositioning trust: A challenge to inauthentic neoliberal uses of pupil voice. *Management in Education*, 26(3), 130-139. doi:10.1177/0892020612445685
- Davies, B. (2009). Difference and differentiation. In B. Davies and S. Gannon (Eds.), *Pedagogical encounters*. New York, NY: Peter Lang.
- Fainisi, F. (2014, April). *Current concerns of OECD regarding the development of innovative learning environments*. Paper presented at the 10th International Scientific Conference eLearning and software for education, Bucharest, Romania. Proceedings, 170-176. doi: 10.12753/2066-026X-14-079. Retrieved: 20 November, 2015 from <http://search.proquest.com.ezproxy.une.edu.au/docview/1534136963?accountid=17227>
- Ferrari, A., Punie, Y., & Redecker, C. (2012). Understanding digital competence in the 21st Century: An analysis of current frameworks. In A. Ravenscroft, S. Lindstaedt, C. Delgado Kloos & D.Hernández-Leo (Eds.), 21st Century

Learning for 21st Century Skills: 7th European Conference on Technology Enhanced Learning, EC-TEL2012 Saarbrücken, Germany, September 18-21, 2012 Proceedings, 79-92. London, United Kingdom: Springer.

- Fullan, M. G. (2014). The meaning of educational change. A quarter of a century of learning. In A. Hargeaves, A. Lieberman, M. Fullan, & D.W. Hopkins (Eds.), *International handbook of educational change: Part Two* (pp. 214-228). New York, NY: Springer.
- Gilbert, J. (2005). *Catching the knowledge wave: The knowledge society and the future of education*. Wellington, New Zealand: New Zealand Council for Educational Research.
- Hattie, J. (1999). The influences of associate teachers on beginning students. Address at Wellington Teachers College. Retrieved: 20 November, 2015 from <https://cdn.auckland.ac.nz/assets/education/about/research/documents/associate-teachers.pdf>
- Heller, J., Steiner, C., Hockemeyer, C. & Albert, D. (2006). Competence-based knowledge structures for personalised learning. *International Journal on E-Learning*, 5(1), 75-88. Retrieved: 21 December, 2015 from www.bcs.org/upload/pdf/ewic_el05_s1paper2.pdf
- Istance, D., & Kools, K. (2013). OECD Work on Technology and Education: innovative learning environments as an integrating framework. *European Journal of Education*, 48(1), 43-57. doi: 10.1111/ejed.12017
- Koelmel, B., & Würtz, G. (2007). Ambient learning – ambient; multimodal and context sensitive lifelong learning. Retrieved from www.mlearn.org.za/CD/papers/Wuertz.pdf
- Lingard, B. (2010). Policy borrowing, policy learning: Testing times in Australian schooling. *Critical Studies in Education*, 51(2), 129-147. doi:10.1080/17508481003731026
- Ministry of Education, (n.d). *What is an innovative learning environment?* Retrieved from <http://mle.education.govt.nz/>
- Ministry of Education, (2007). *The New Zealand Curriculum for English-medium teaching and learning in years 1-13*. Wellington, New Zealand: Learning Media Limited.
- Ministry of Education, (2011). *Tātaiako: Cultural Competencies for Teachers of Māori Learners*. Ministry of Education. Wellington, New Zealand: Retrieved from <https://educationcouncil.org.nz/required/Tataiako.pdf>
- Ministry of Education, (2014a). Auckland Normal Intermediate Modern learning environment case study - June 2014. Retrieved from <http://mle.education.govt.nz/assets/Uploads/MLE/Case-Studies/AucklandNormalIntermediateCasestudy-July2014.pdf>
- Ministry of Education. (2014b). *Ministry of Education Statement of Intent 2014-2018*. Report to the House of Representatives pursuant to section 39 of the Public Finance Act 1989. Wellington, New Zealand: Ministry of

- Education. Retrieved: 21 October, 2015 from www.education.govt.nz/.../Ministry/.../Statements-of-intent/2014SOI.pdf
- Ministry of Education, (2015a). *Investing in Educational Success*. Retrieved: 21 October, 2015 from <http://www.education.govt.nz/ministry-of-education/specific-initiatives/investing-in-educational-success/#raisingachievement>
- Nelson, E. (2014). Enacting student voice through governance partnerships in the classroom: Rupture of the ordinary for radical practice. *Forum*, 56(1), 91-104. doi:10.2304/forum.2014.56.1.91
- O'Neill, A. (2015). The New Zealand experiment: assessment-driven curriculum – managing standards, competition and performance to strengthen governmentality. *Journal of Education Policy*, 30(6), 831-854. doi: 10.1080/02680939.2015.1033766
- Organisation for Economic Cooperation and Development (OECD), (2010). *The nature of learning: Using research to inspire practice*. Retrieved from www.oecd.org/edu/cei/50300814.pdf
- Organisation for Economic Cooperation and Development (OECD), (2013). *Innovative Learning Environments, education research and innovation*. OECD Publishing. Retrieved: 26 October, 2015 from <http://dx.doi.org/10.1787/9789264203488-en>
- Organisation for Economic Cooperation and Development (OECD), (2015a). *Schooling redesigned: Towards innovative learning systems*. Paris, France: Educational Research and Innovation, OECD Publishing Retrieved: 21 December, 2015 from DOI: <http://dx.doi.org/10.1787/9789264245914-en>
- Organisation for Economic Cooperation and Development (OECD), (2015b) *Education policy outlook 2015: Making reforms happen*. Paris, France: Educational Research and Innovation, OECD Publishing. Retrieved: 26 October, 2015 from <http://dx.doi.org/10.1787/9789264225442-en>
- Osborne, M. (2013). Modern learning environments. Retrieved: 26 October, 2015 from <http://www.core-ed.org/thought-leadership/white-papers/modern-learning-environments>
- Patterson, R. (2014). *No school is an island fostering collaboration in a competitive system*. Wellington, New Zealand: The New Zealand Initiative. Retrieved: 22 December 2015 from http://nzinitiative.org.nz/site/nzinitiative/files/2%20Page%20Summary/No%20School%20is%20an%20Island_summary_FINAL1.pdf.
- Report of the Taskforce to Review Education (1988). *Administering for excellence. Effective administration in education* [The Picot Report]. Wellington, New Zealand: Government Printer.
- Schreiber, L., & Valle, B. (2013). Social constructivist teaching strategies in the small group classroom. *Small Group Research*, 44(4) 395– 411. doi: 10.1177/1046496413488422

- Smardon, D., & Charteris, J. (2012). Between a rock and a hard place: Teacher professional learning. *New Zealand Journal of Teachers' Work*, 9(1), 27-35. Retrieved: 21 September, 2015 from www.teacherswork.ac.nz/journal/volume9_issue1/smardon.pdf
- Smith, G. (2009). *Transforming leadership: A discussion paper*. Presentation to the 2009 Simon Fraser University Summer Institute 'Leading Change in Education'. Retrieved: 21 September, 2015 from <https://www2.viu.ca/integratedplanning/documents/DrGrahamSmith.pdf>
- Smyth, J. (2012). Teachers as *classed* cultural workers *speaking back* through critical reflection. In B. Down & J. Smyth, (Eds.), *Critical voices in teacher education: Teaching for social justice in conservative times* (pp. 81-95). Dordrecht, Netherlands: Springer. doi:10.1007/978-94-007-3974-1
- Starkey, L., & Stevens, K. (2007). Three stages in the digital integration of New Zealand Schools. *New Zealand Annual Review of Education*, 16, 105-117. Retrieved: 15 December, from <https://ojs.victoria.ac.nz/nzaroe/article/view/1514/1360>
- Tomlinson, C. (2000). Reconcilable differences? Standards-based teaching and differentiation. *Educational Leadership*, 58(1), 6-11. Retrieved: 25 November, 2015 from http://www.ascd.org/publications/educational_leadership/sept00/vol58/num01/Reconcilable_Differences%C2%A2_Standards-Based_Teaching_and_Differentiation.aspx
- Wylie, C. (2010). Tomorrow's Schools after 20 years: Can a system of self-managing schools live up to its initial aims? *New Zealand Annual Review of Education* 19, 5-29. Wellington, New Zealand: Faculty of Education, Victoria University.
- Wylie, C. (2011). Opportunities for Teacher Collaborative Practices in a Self-Managed School System: the New Zealand Experience. Paper for the AERA 2011 Annual Meeting, April 8-12, New Orleans. Retrieved: 21 September, 2015 from <http://www.nzcer.org.nz/research/publications/opportunities-teacher-collaborative-practices-self-managed-school-system-new-z>
- Yildirim, A, & Kasapoglu, K. (2015). Teachers' perceptions of constructivist curriculum change as a predictor of their perceptions of the implementation of constructivist teaching-learning activities. *Asia Pacific Education Review*, 16, 565-577. doi: 10.1007/s12564-015-9394-5

ABOUT THE AUTHORS

DIANNE SMARDON

*University of New England,
Armidale, Australia*



Dianne has been involved with teacher professional development for over 22 years both in New Zealand, England, Hong Kong and Nauru. She has taught in both NZ and UK primary schools. Dianne has a strong interest in the promotion of learners' critical thinking and reflective practices.

JENNIFER CHARTERIS

*University of New England,
Armidale, Australia*



Jennifer is a teacher educator with over 21 years of teaching experience in New Zealand, Australia and the UK, working with students, teachers, principals, school communities and school in-service advisors. She has taught in the primary, secondary and tertiary sectors. Jennifer teaches research methods at Masters level and learning theories in a primary teacher education course.

EMILY NELSON

Eastern Institute of Technology,

Hawkes Bay, New Zealand



Emily is a teacher educator with over 25 years of experience teaching in primary, preservice, inservice and tertiary education. She currently teaches on a primary practice-based teacher education course and has research interests in the areas of student voice, action research and innovative learning pedagogies.