NZCER
Rangahau Mātauranga o Aotearoa

Teacher experiences working in Innovative Learning Environments (ILEs)

Findings from NZCER's National Survey of Secondary Schools

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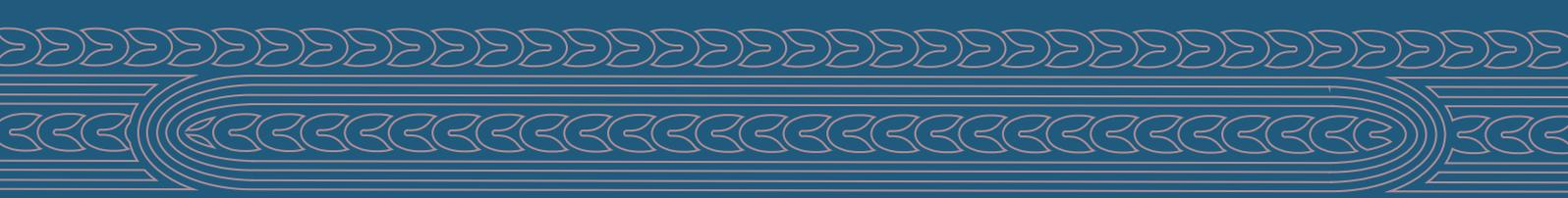
1 Background

The National Survey of Schools is part of the New Zealand Council for Educational Research's (NZCER's) Te Pae Tawhiti programme of research. NZCER has run a national survey of secondary schools triennially since 2003, with the latest surveys completed online between August and December 2021.

This document is part of the National Survey's research brief series, where we present findings that are useful for policymakers and school leaders. A complete report including all teacher responses to the latest 2021 national survey can be accessed here.[1]

Research Brief 1 focuses on secondary teachers' experiences working in Innovative Learning Environments (ILEs). This brief highlights the importance of supporting teachers when responding to pedagogical challenges related to working in an innovative learning environment.

KEY MESSAGES

- **Our analysis highlights the importance of continuing to improve digital resourcing and facilities in schools, and to provide ongoing professional learning and development (PLD) opportunities, to help improve teaching experiences in ILEs and enhance teachers' work experiences**
- **Reliable digital resourcing and a strong culture of ongoing PLD are positively related, and both predict positive experiences of working in ILEs. Both are also positively associated with teachers' work (morale and workload).**
- **Teacher views that some of their students feel overwhelmed in ILEs suggest the need to investigate teacher and student experiences in future studies, including the specific teaching behaviours that would help enhance student experiences in those environments.**

Suggested citation for this research brief

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1   https://www.nzcer.org.nz/research/publications/Teacher perspectives 2021-national-survey-secondary-schools

1.1   What is an Innovative Learning Environment (ILE)?

Innovative Learning Environment (ILE) is "a term used in New Zealand and internationally to refer to the wider ecosystem of people (social), practice (pedagogically) and physical/property" (Ministry of Education, 2021). There has been a shift in terminology to an overarching "ILE" to allow flexibility in designing teaching and learning experiences in those spaces, and the provision of innovative— typically technological—and collaborative practices to thrive in them (OECD, 2015; Walker, 2003). This definition goes beyond the material elements of an ILE and incorporates how teachers embrace and explore teaching and learning in ILE spaces (Carvalho et al., 2020). As suggested by Carvalho et al. (2020), navigating transitions from traditional single-cell classrooms to ILEs calls for careful considerations about what is valued *and* possible in these newly configured environments, including the role of emerging technologies and access to PLD opportunities.

1.2   Challenges to working effectively in ILEs

Positive experiences in ILEs are predicated on successful transitions (social, physical, technological, and pedagogical) to teaching and learning in those new environments (Byers et al., 2018a, 2018b, 2018c, 2018d). However, previous New Zealand research has highlighted some concerns around teacher preparedness to work in ILEs. In those studies, New Zealand teachers reported struggling to align their pedagogical practices with the new learning environments and the use of digital technologies (Carvalho et al., 2020). Evidence from the 2021 national survey of secondary schools showed that two-thirds of teachers were concerned that some students find learning in an ILE overwhelming (Alansari et al., 2022). Teachers have found that increases in noise and distraction related to larger classes can make teaching and learning more challenging (Fletcher et al., 2020). Teachers have also raised concerns about available PLD to support teaching in ILEs and to respond to new ILE-related challenges (Fletcher & Everatt, 2021; Fletcher et al., 2020). Teachers also noted that on-the-job training and lack of support prior to working in an ILE could lead to deteriorating morale and an increased sense of unmanageable workload (Smardon et al., 2015).

1.3   The importance of PLD

The key role of PLD for teachers in ILEs has been recently explored and emphasised in the New Zealand context (Carvalho et al., 2020; Mackey et al., 2017, 2018). Research in New Zealand has shown that teachers can be better prepared and supported to work effectively in ILEs through within-school collaboration and PLD related to the affordances, such as the use of digital technologies and co-teaching in ILEs (Fletcher et al., 2020). A culture of PLD in school is critical for the internal expertise to be shared, during which the combined collective intelligence can help prepare teachers to navigate the shift (Fletcher et al., 2020). As such, PLD could be perceived as an essential part of the transition from traditional single teacher classrooms to co-teaching within ILEs, with the aim to reduce teachers' uncertainty about the shifts and lead to more positive experiences of change.

1.4 Teacher workload and morale

We asked teachers about their working experiences (workload and morale) in our national surveys. Teacher morale is described as "how teachers view themselves, their roles and the level at which their needs are met by the organization" (Mboweni & Taole, 2022, p. 30), which is important for developing a conducive environment for teaching and learning.

Evidence from the 2021 national survey of secondary schools revealed a declining trend of teacher morale and increased workload compared to previous years (Alansari et al., 2022). This finding is echoed by the international trend influenced by the COVID-19 pandemic (Kim et al., 2022). Given that working in ILEs is likely to require changes in teachers' pedagogical beliefs and their workload—and these factors will, in turn, influence the implementation of the ILEs—it is important to take teachers' working experiences into consideration.

Prior research on the enabling factors of teacher wellbeing reinforces the focus of this brief to explore school- and class-level variables in the same context. Particularly, previous research highlighted various associations between positive views of morale, school climate, and ongoing PLD (Gore et al., 2017; Syahril & Hadiyanto, 2018). Considering the key role of teachers' morale and their perceptions of workload, it is important to explore how positive working experiences for teachers can be promoted when working in ILEs (Pressley et al., 2022).

2 What we wanted to find out

This brief aims to explore what the national survey of secondary teachers can tell us about teachers' views and experiences of working ILEs. We sought to explore the enabling factors, such as ongoing PLD provision and digital resourcing, that would enable secondary teachers to thrive in ILEs, and whether this could lead to enhanced views of their work (i.e., morale and workload). Quantitative studies exploring the relations between teachers' work in ILEs, school context factors, and the influence of these on workload and morale are also scarce in the literature.

For this brief, we posed two research questions:

1. What are secondary teachers' views of working in ILEs?
2. What are the associations between teachers' views of working in ILEs, school context factors (digital resourcing, facilities, and PLD), and their work beliefs (morale and workload)?

3 What we did

For the 2021 National Survey project, we surveyed a sample of 5,376 teachers, randomly chosen from a stratified sample of Years 9–13 and Years 7–13 secondary schools to ensure national representation of schools across all deciles. A total of 1,093 teachers completed the surveys by December 2021. The responses give a nationally representative picture in terms of school decile and are broadly representative by school area and region.

3.1 Who we asked

We focused on the survey data from the 248 teachers who indicated working in an ILE for some or most of the time in 2021. All technical information, including a full demographic breakdown of teacher responses, is reported in the full report (Alansari et al., 2022).

3.2 What we asked

We analysed teacher responses to survey questions that fall within five main areas:

1. working in ILEs (e.g., "I enjoy teaching in an ILE")
2. the school's digital resourcing and facilities (e.g., "The school equipment is adequate and reliable")
3. the school's culture of ongoing PLD (e.g., "I've had good opportunities to see and discuss the work of other teachers in our school")
4. morale (e.g., "I enjoy my job")
5. workload (e.g., "My workload is manageable").

3.3 How we analysed the data

Figure 1 shows the hypothesised model that presents the possible relations between factors at school level, teaching and learning level, and individual teacher level. We explored whether school context and culture factors (digital resourcing and facilities, culture of ongoing PLD) are related to teachers' reported experiences working in ILEs and, in turn, on how teachers view their work (morale and workload). Data were analysed quantitatively through descriptive techniques, factor analysis, and path analysis. Our analysis enabled us to explore whether teachers' views of their work and of their experiences working in ILEs, could be predicted by their views of the school's digital resourcing and culture of ongoing PLD, but causation cannot be inferred

FIGURE 1 **Our theory**
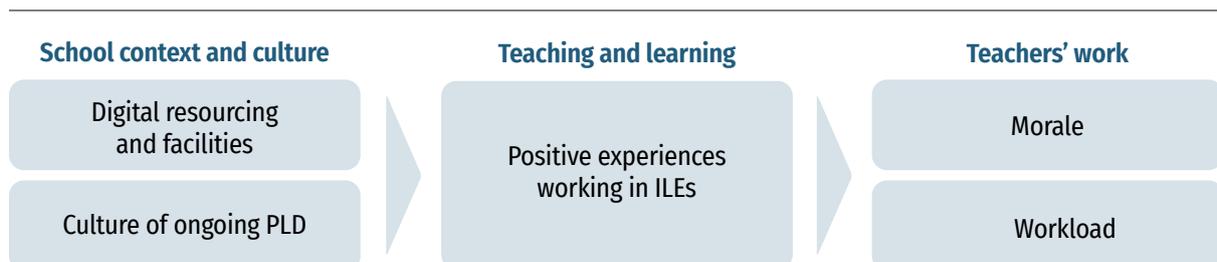
4 What we found

4.1 Teacher experiences working in ILEs are varied

Teachers' positive ratings of their experiences ranged from 40% to 49%, with only 24% receiving useful PLD before teaching in an ILE, and 66% saying some of their students find learning in an ILE overwhelming.

We found no statistically significant differences in teacher views of working in ILEs by decile, school size, teacher ethnicity, or teacher gender. However, there was a statistically significant (albeit weak) association between years of teaching experience and teacher ratings: more years of teaching experience were associated with more positive ILE ratings.

TABLE 1 **Teacher views of working in ILEs**

Working in an ILE (*n* = 248 teachers)	% Disagree or Strongly Disagree	% Neutral	% Agree or Strongly Agree
I enjoy teaching in an ILE	24%	27%	49%
Overall, my students enjoy learning in an ILE	21%	32%	47%
Working in an ILE allows me to teach in ways that benefit my students' learning	21%	33%	46%
The ILE I work in is well designed for teaching and learning	30%	30%	40%
We are supported to work collaboratively in this ILE	22%	38%	40%
I have had useful professional learning focused on ILEs before teaching in them	45%	31%	24%
Some students find learning in an ILE overwhelming	7%	27%	66%

4.2 A culture of ongoing PLD and reliable digital resourcing matter

Our analysis shows the interrelated nature of schools' digital resourcing, ongoing teacher PLD, teacher experiences in ILEs, and how they view their work:

- Having reliable digital resourcing was positively associated with having a strong school culture of ongoing PLD.
- Both reliable digital resourcing and a strong culture of ongoing PLD predict positive experiences working in ILEs, as well as more positive levels of morale and workload.
- The strongest predictor of positive views of teacher morale is teachers reporting a strong culture of ongoing PLD in their schools.
- Having more positive experiences working in ILEs predicts more positive levels of morale but not workload.

FIGURE 2 **Our model showing statistically significant paths
(.1 = weak, .3 = moderate, .5 = strong)**

(.1 = weak, .3 = moderate, .5 = strong)
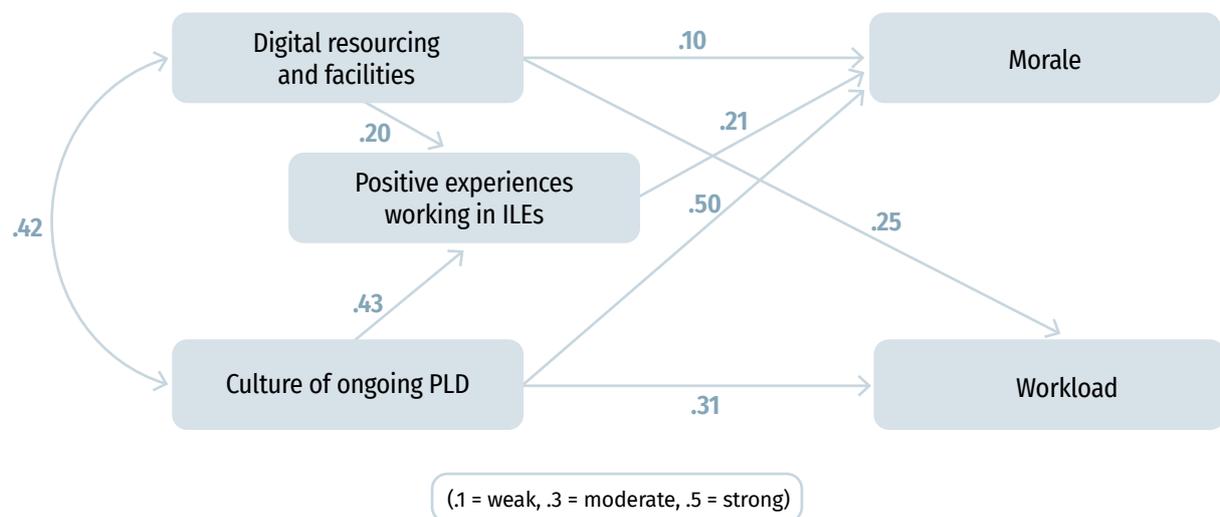
5 Key messages and implications

This brief highlights the importance of ongoing investment in PLD opportunities and enhancing the digital resourcing and facilities in schools. Both of these have been shown to be positively related to teachers' experiences in ILEs as well as their working experiences (their morale and workload).

Consistent with previous research, this brief showed that, when teachers have been supported with ongoing PLD and when there is reliable digital resourcing in place, then teachers are better positioned to work well in ILEs. These experiences, as we found in our analysis, are likely to result in more positive morale.

Teaching in ILEs can be challenging (Fletcher et al., 2020). Many teachers were aware that some of their students feel overwhelmed in ILEs. Together with the finding about the importance of PLD, this suggests that there is an opportunity for ongoing PLD and teacher collaboration to explore ways to ensure that every student has a positive experience learning in ILEs. It is hoped that this brief could work as a starting point for more in-depth studies to explore teacher and student experiences in ILEs.

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