



# Teaching our teachers:

How effective is professional  
learning and development?

## Technical Appendix



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This technical appendix outlines ERO's approach to reviewing teacher development. It explains the questions we asked, who we engaged with, how we gathered information, and the methods we used to analyse, synthesise, and validate our findings.

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This technical appendix is in two parts:

- Part 1: Technical Notes - describes how we designed the review of teacher professional learning and development (PLD), the method we used, and the sample we achieved.
- Part 2: Data – provides the survey tools we used and the data tables from the findings outlined in our main report.

## Part 1: Technical Notes

Part 1 sets out in detail the methodology used for ERO's review of PLD, providing further information and detail on the results outlined in our report: [\*Teaching our teachers: How effective is professional learning and development\*](#). Part 1 includes:

1. What we looked at
2. What we asked
3. Who and how we asked
4. How we analysed
5. How we synthesised
6. How we checked
7. What the caveats are

### 1. What we looked at

#### Purpose of the review of PLD

The Education Review Office (ERO) wanted to understand the current state of PLD in New Zealand including what is working well, what isn't, and why. The review focusses on English-medium state and state-integrated schools. The review explores teachers' engagement with PLD and how PLD is chosen, designed and embedded. With this analysis, we set out key recommendations that may strengthen PLD practice across the country.

## 2. What we asked

### Review aims and questions

This review examined the current PLD landscape in New Zealand - how teachers engage with PLD, how it is chosen, designed, and embedded. We set out to understand what is working, where the gaps are, and how we can strengthen PLD.

There is a well-established evidence base to define what good PLD is, and we used this to look at whether and how this is reflected in New Zealand's practice. To understand this, we looked at:

- What is PLD and why is it important?
- How much PLD do teachers receive?
- What is good quality PLD?
- What will strengthen the quality of PLD?

### Tool development

Our tools were developed as follows:

- A review of what the Education Endowment Fund (EEF) identifies as evidence-based effective practice in PLD for teachers.
- A review of international and national research highlighting what matters most in changing teacher practice.
- A selection of key mechanisms that are shown to develop effective PLD.

Further questions were designed by the ERO team and broadly considered for internal consistency and clarity. The subsequent questionnaires were tested with experts from within schools, the Ministry of Education, and the Professional Learning Association New Zealand (PLANZ).

## 3. Who and how we asked

To understand PLD for teachers we were interested to hear from a broad range of people. This report draws on the voices of:

- teachers,
- school leaders,
- board members, and
- PLD providers and facilitators.

To ensure triangulation of the evidence our mixed-methods approach integrates:

- quantitative data (surveys),
- qualitative data (surveys, interviews, observations),
- and evidence-based literature (Education Endowment Fund).

## Quantitative data: Surveys

To understand teachers', leaders' and providers' experiences with PLD and how it is being chosen, designed and embedded, an online survey was undertaken.

Surveys were in the field from February to March 2025. All surveys were carried out online using SurveyMonkey. Full surveys can be found in Part 2.

In the teacher survey, we included two mirrored sections, one focussed on internal PLD and the other on external PLD, with questions differing only by reference to the relevant PLD type. Each section was clearly stated in the survey to ensure respondents distinguished between the two.

The four different surveys were designed and distributed to teachers, leaders, boards, and providers separately.

### Sample design and data collection – teachers, leaders and board member surveys

We used a census sampling method whereby we invited all English medium schools to complete our surveys that meet the inclusion criteria.

ERO sent information and survey links to *all schools* via email asking for them to distribute the survey to leaders (e.g. Principals, Deputy/Associate/Assistant Principals, Deans etc.), to all teachers, and to the board for one member to complete (or together for one response). ERO provided some text for schools to use to make the distribution as easy as possible.

To ensure a good response rate, ERO sent reminder emails after one week and monitored responses as they came in to ensure representation from a wide range of schools. Schools who were under-represented were followed up by phone in the final week the survey was open.

We worked with the New Zealand School Boards Association (NZSBA) to boost numbers of board members to our survey. NZSBA sent an email with a link to the survey to 15,000 school board members, resulting in a significant increase in responses from board members.

### Sample design and data collection – PLD providers and facilitators

A census sampling method was used for PLD providers and facilitators. Surveys were sent out by ERO to PLD providers and links were also sent by PLANZ to their network of 180 PLD providers.

Reminder emails were sent to providers after one week.

### Survey sample characteristics

An overview of our achieved sample is outlined below:

Survey respondents	Achieved sample	number of schools represented
Teachers	818	354
School leaders	667	556
School Board members	1,005	669
PLD Providers	79	-

## Teachers

We received survey responses from 818 teachers. The key characteristics of the teachers who responded to our survey are outlined below:

	Number	Percent
<b>Region</b>		
Auckland	271	33%
Bay of Plenty, Waairiki	57	7%
Canterbury, Chatham Islands	92	11%
Hawke's Bay, Tairāwhiti	53	6%
Nelson, Marlborough, West Coast	51	6%
Otago, Southland	80	10%
Te Tai Tokerau	51	6%
Taranaki, Whanganui, Manawatū	30	4%
Waikato	89	11%
Wellington	44	5%
Total	<b>818</b>	<b>100%</b>
<b>Area</b>		
Major urban area	335	41%
Large urban area	119	15%
Medium urban area	130	16%
Small urban area	119	15%
Rural settlement area	51	6%
Other rural area	59	7%
Total	<b>813</b>	<b>100%</b>
<b>School size</b>		
Very Small	14	2%
Small	107	14%
Medium	217	28%
Large	199	26%
Very Large	235	30%

	Number	Percent
Total	772	100%
<b>High Māori roll</b>		
High Māori roll	248	38%
Not high Māori roll	410	62%
Total	658	100%

### Survey of school leaders

We received survey responses from 667 school leaders. The profile of the school leaders who responded to our survey is set out below.

School characteristics	Number	Percent
<b>School region</b>		
Auckland	166	25%
Bay of Plenty, Waiariki	40	6%
Canterbury, Chatham Islands	70	10%
Hawke's Bay, Tairāwhiti	38	6%
Nelson, Marlborough, West Coast	49	7%
Otago, Southland	73	11%
Te Tai Tokerau	53	8%
Taranaki, Whanganui, Manawatū	56	8%
Waikato	66	10%
Wellington	56	8%
Total	667	100%
<b>Area</b>		
Large urban area	89	14%
Major urban area	234	36%
Medium urban area	61	9%
Rural other	116	18%
Rural settlement	52	8%
Small urban area	106	16%
Total	658	100%
<b>School size</b>		

School characteristics	Number	Percent
Very Small	35	5%
Small	136	21%
Medium	201	31%
Large	148	23%
Very Large	129	20%
Total	649	100%

### Survey of board members

We received survey responses from 1,005 board members. The profile of the board members who responded to our survey is set out below.

Characteristics	Number	Percent
<b>Region</b>		
Auckland	227	23%
Bay of Plenty, Waiairiki	72	7%
Canterbury, Chatham Islands	135	13%
Hawke's Bay, Tairāwhiti	77	8%
Nelson, Marlborough, West Coast	60	6%
Otago, Southland	82	8%
Tai Tokerau	51	5%
Taranaki, Whanganui, Manawatū	93	9%
Waikato	108	11%
Wellington	100	10%
Total	1,005	100%
<b>Role on Board</b>		
Board chair	49	5%
Member	744	74%
Presiding member	212	21%
Total	1,005	100%

## Survey of PLD Providers and facilitators

We received survey responses from 79 PLD providers and facilitators. The profile of the PLD providers and facilitators who responded to our survey is set out below.

Type of PLD provider	Number	Percent
Large private provider	18	33%
Smaller or mid-size private provider	23	43%
University/Polytechnic	10	19%
Other	3	5%
<b>Total</b>	<b>54</b>	<b>100%</b>

## Qualitative Data

To gain a deeper understanding of teachers' and leaders' current experiences of PLD and what PLD looks like for them, we completed:

- Site visits and interviews at English medium schools,
- observations of PLD sessions,
- Free text survey responses.

Data collection method	Number
Interviews	149 participants
Site visits	20 schools
Observations of PLD sessions	2 PLD sessions in practice

## School Site visits

To inform our review we visited 20 schools: 15 schools in person and five schools online. During these site visits we talked to teachers, school leaders and at a small number of schools, board members.

We covered a range of school types and contexts including, high and low socioeconomic communities, different sized schools, schools in a range of locations (eg; urban and rural), as well as schools that are working together on PLD and schools that are doing so in isolation.

School leaders volunteered to be interviewed after ERO contacted their school to visit. Teachers and board members volunteered for our interviews through discussion with their school leadership.

Overall, we spoke to 87 teachers and 42 leaders. This was a sufficient number to understand the issues, as evidenced by reaching a point of saturation - whereby the same themes were being voiced repeatedly.



## Interviews

Interviews with school leaders, teachers, board members and PLD providers were conducted during March 2025.

The following table outlines the number of interviews and participants across the 20 schools:

Interview respondents	Number of interviews	Total number of participants
Teachers	19	87
School Leaders	20	42
School board members	4	4
<b>Total</b>	<b>43</b>	<b>133</b>

### *Interviews with teachers, leaders and board members*

Teachers, leaders and board members volunteered for our interviews through discussion with their school leadership, after ERO contacted their school to visit. Interviews were held in person at schools or online. Interviews were mostly conducted in small groups; however, some were conducted one-on-one.

Enough teachers and leaders were interviewed until interviewers reached a point of saturation, where the same themes were being voiced repeatedly.

Interviews questions were based on our key evaluation questions, covering planning, selecting, designing and implementing PLD.

Interviews were semi-structured, and varied dependent on experience, and how much they wanted to say. Each interview was led by two reviewers. Interviews were recorded and transcribed, and extensive notes were also taken.

### *Interviews with PLD providers and facilitators*

We conducted online interviews with eight PLD providers and facilitators, from 10 different PLD organisations. PLD providers volunteered for interviews after ERO contacted them. Interviews with PLD providers and facilitators were conducted online. PLD providers volunteered for interviews after ERO contacted them.

Interviews questions were based on our key evaluation questions. For PLD providers and facilitators questions covered key indicators: planning and selecting PLD; designing PLD; implementing PLD.

Interviews were semi-structured. Each interview was led by two reviewers. Interviews were recorded and transcribed, while extensive notes were also taken. The total number of interviews and participants is outlined below.

Interview respondents	Number of interviews	Total number of participants
PLD Providers	8	16

## Observations of PLD sessions

To better understand how both internal and external PLD sessions run in schools in practice, ERO observed one internal and one external PLD session. These observations were conducted in March, separate to our site visits. In line with national priorities, we observed one literacy-focussed and one numeracy-focussed PLD session. Our observations were guided by a 'mechanism checklist' that sets out EEF's 14 mechanisms of what 'quality PLD' looks like.

### *Internal PLD session*

The internal PLD observation was at a secondary school during a teacher-only day. This was a writing-based workshop led by an in-house expert. We observed half the day, but professional learning lasted for the whole day. There was a whole-staff session where the facilitator presented content knowledge and then engaged all staff in whole-staff activities and small group discussions. Following this session, teachers were given the opportunity to choose from four targeted writing-based workshops. We observed one of these, also led by the same facilitator, which focussed on strategies to promote quick, error-free writing. Both workshops included modelling, demonstration and explicit instructions with time for reflection.

### *External PLD session*

The external PLD observation took place at an intermediate school. It was held on a teacher-only day and was run by one of the five Ministry-funded PLD providers for numeracy. We only observed half the day, but the professional learning lasted for the whole day. There was one facilitator present, who went through a PowerPoint presentation, as well as engaging staff in activities and discussion topics. There were teacher aides, as well as teachers and leadership staff present.

## Evidence based literature

Our review also drew on international evidence, based on a systematic review and meta-analysis from the Education Endowment Foundation (EEF),<sup>1</sup> on how to improve professional development, and design, select, and embed more impactful PLD. We used the EEF guidance to understand how aspects of teachers' PLD in New Zealand aligns with their principles of best practice.

We also conducted a scan of literature from key sources such as the OECD to understand how New Zealand's PLD aligns with other key international jurisdictions.

## Ethics

### Informed consent

All participants were informed of the purpose of the evaluation before they agreed to participate in an interview. Participants were informed that:

- participation was voluntary
- their words may be included in reporting, but no identifying details would be shared
- permission to use their information could be withdrawn up until 28 March 2025
- interviews were not an evaluation of their school, and their school or provider would not be identified in the resulting national report

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<sup>1</sup> The Education Endowment Foundation (EEF) is a UK-based charity dedicated to improving teaching and learning through better use of evidence. <sup>1</sup> The EEF conducted a systematic review and meta analysis of 104 peer reviewed studies.

- their information was confidential and would be kept securely subject to the provisions of the Official Information Act 1982, Privacy Act 1993, and the Public Records Act 2005 on the release and retention of information.

Before completing surveys, participants were also provided with information on the project, including how their responses will be used. Participants consented to the survey by continuing onto the questionnaire.

Before interviewing, teachers, school leaders, school Board members and PLD providers and facilitators were sent a consent form with an information sheet on the project, and how their data will be used. Participants signed their consent forms and sent them back prior to the interviews. In interviews, all participants confirmed that they consented to being recorded, and were reminded how their information may be used in the review.

### Data storage

Data collected from interviews, surveys, and administrative data will be securely stored digitally. During this time, all data is password-protected and has limited accessibility.

## 4. How we analysed

### Quantitative data analysis

Before analysis, we organised the collected survey data into Microsoft Excel spreadsheets. We then individually cleaned the four spreadsheets for school leaders, boards, teachers, and PLD providers to address missing data and errors. After cleaning, we uploaded the datasets to STATA for onward coding and analysis. Our approach to analysis involved key stages:

- Descriptive statistics to report on the distribution of survey responses.
- Inferential statistics to test for group differences.
- Regression analysis to examine key drivers of PLD and relationships between variables.

### Descriptive statistics

We generated descriptive statistics to understand the views of school leaders, boards, teachers, and PLD providers. Throughout the report, we report the descriptive analysis results as follows:

Missing data across all surveys were excluded from the analysis. In some survey questions, we have a “don’t know” option to allow participants to indicate uncertainty. These responses were included in descriptive summaries and presented in graphs where relevant and meaningful. Survey responses were reported using the original response categories to preserve nuance and capture the full distribution of perspectives. No grouping was applied at this stage.

Numbers and percentages are rounded to the nearest whole number, except where rounding errors lead to incorrect totals. In these instances, the numbers are rounded to minimise rounding error.

All results presented in the report are unweighted.

### Inferential statistics

To explore group differences and associations, the inferential statistical tests were used. We used Kruskal–Wallis tests for the tests. This non-parametric method is suitable for comparing ordinal outcomes across three or more independent groups. The test was chosen as many of the survey variables were measured on Likert-type scales.

We explored differences between both school-level characteristics (such as Equity Index group, rurality, and school type - primary vs secondary) and person-level characteristics (such as teaching experience) with key outcome variables. All statistical tests were two-tailed, and results were considered statistically significant where  $p \leq 0.05$ . Only statistically significant results are reported.

### Regression analysis

To understand how effective PLD is, and what factors make it more or less impactful, we conducted logistic regression analyses with teacher and leader survey data. The regression models included factors that were identified in the design stage as theoretically relevant to the outcomes of interest. These included variables that would likely influence our outcomes, as well as school characteristics which we needed to account for to more accurately measure the influence of the key factors we were interested in.

Responses of “Don’t know” were omitted from all regression analysis. We recoded variables into binary (i.e. yes/no) or broader categories to make the regression models more stable and the results easier to understand. The categories were based on how conceptually similar the responses were, how the responses were spread across the sample, and what we needed the model to show. Results are reported as odds ratios, with significant levels indicated as:  $p < 0.1 = *$ ,  $p < 0.05 = **$ ,  $p < 0.01 = ***$ . All the outputs were rounded to two decimal places.

To control for school level context, we included the following variables derived from school level administrative data:

- Rurality: Urban/ Rural
- School type: Primary/ Secondary
- Equity index score: Fewer/ Moderate/ More
- School size: Very small + small/ Medium/ Large + Very large

Specifically, we tested whether selected components of PLD influenced the three outcomes:

1. Frequent use of PLD in the classroom
2. Improvements in student outcomes
3. Improvements in teaching practice

The following explains the models in detail. The regression output tables can be found in Part 2.

### *Regression model 1a and 1b: Teachers who frequently use PLD in the classroom.*

#### *Outcome variable:*

The outcome variable of interest for both models was teachers who reported they often use their PLD (*everyday or once a week*). The structure and coding of the variables were the same across both models so that the results are comparable.

Model 1a shows the impact that internal PLD components had on internal PLD use, and Model 1b shows the impact that external PLD components on external PLD use.

#### *Predictor variables:*

Predictor variables in the model covered the four key components of effective PLD:

- Builds teachers’ knowledge
- Develops teaching techniques

- Gives teachers the tools to use what they've learnt
- Motivates teachers to use what they've learnt

### *Regression Model 2a and 2b: Teachers' perceived improvement in student outcomes*

#### *Outcome variable:*

The outcome variable of interest for the second model was teachers who believed PLD had a positive impact on student outcomes (*Yes, a lot or Yes, a bit*). The structure and coding of the variables were the same across both models so that the results are comparable.

Model 2a shows the impact that internal PLD components had on student outcomes, and Model 2b shows the impact that external PLD components had on student outcomes.

A wording error in the section on external PLD, which incorrectly used the word 'internal' in a prior question, may have led some respondents to answer the external PLD question with internal PLD in mind. However, further analysis showed this was unlikely, as a small proportion (~20%) gave identical answers in both sections. To be cautious, those responses were excluded from the regression analysis, which did not significantly affect the results.

#### *Predictor variables*

The same four PLD components and source of questions used in Regression 1 and 2 were included as predictors. Refer to Regression 1 for the details.

### *Regression Model 3a, 3b, 3c and 3d: Teachers' and leaders' perceived improvement in teaching practice*

The third set of models looks at how PLD influences teaching practice from the perspectives of teachers and leaders separately.

#### *Teacher perspective: Outcome variable*

The outcome variable of interest for both models was teachers who believed PLD had a positive impact on their teaching practices (*a lot or a bit*). The structure and coding of the variables were the same across both models so that the results are comparable.

Model 3a shows the impact that internal PLD components had on teaching practices, and Model 3b shows the impact that external PLD components had on teaching practices.

#### *Predictor variables*

The same four PLD components and source of questions used in Regression 1 and 2 were included as predictors. Refer to Regression 1 for the details.

#### *Leader perspective: Outcome Variable*

The outcome variable of interest for the model was leaders who believed PLD had a positive impact on teacher practices at their school (*A lot*). *None* and *Don't know* were excluded from the analysis due to limited responses.

Model 3c shows the impact that PLD selection components had on teaching practices, Model 3d shows the impact that PLD planning components had on teaching practices, and Model 3e shows the impact that PLD implementation support components had on teaching practices.

*Predictor variables: PLD selection practices*

We included three sets of predictor variables, derived from leaders' responses about PLD programme selection, planning consideration, and implementation. Each set of predictor variables was included in the models separately:

- Builds teachers' knowledge
- Develops teaching techniques
- Introduces new techniques
- Gives teachers the tools to use what they've learnt
- Motivates teachers to use what they've learnt

Responses were recoded into three categories to test whether greater consideration of each factor (*Always* or *Usually*) was associated with improved teacher practice.

*Predictor variables: PLD planning consideration*

- Programme alignment with school priorities
- Leadership support
- Staff time and resources
- Delivery mechanisms
- Feedback mechanisms

Responses were recoded into three categories to test whether greater consideration of each factor was associated with improved teacher practice.

*Predictor Variables: PLD implementation support :*

- Time support
- Follow-up sessions support
- Resources support

Responses were recoded into three categories to test whether greater support of each way (*Always* or *Usually*) was associated with improved teacher practice.

**Qualitative data**

Qualitative data in our review included:

- open-ended questions in our surveys with the aim of collecting more detailed data on some issues and to provide opportunities for participants to tell us things we might not know to ask about.
- Interviews with teachers, leaders, board members and PLD providers and facilitators.

Qualitative Data were analysed deductively and inductively using the Framework Method. The Framework Method is a structured approach to qualitative analysis involving five stages: familiarisation, framework development, indexing, charting, and interpretation. Data are summarised into a matrix of cases by themes, enabling systematic comparison within and across cases. It is valued for its transparency, auditability, and ability to combine deductive and inductive analysis, making it particularly suited to applied research conducted by teams. Using this method:

- interview notes were organised according to themes identified in the scoping phase. These themes were identified as being important for answering the key review questions and sub-questions. They were identified through literature review and key informant interviews.
- the interview notes were then analysed and coded with secondary and additional themes that emerged as important within the data. The analysis was conducted for each interview, and themes were refined across interviews.
- the final set of themes were used to develop a series of charts, or tables, (in MS Excel) the cells within the charts were populated with summaries for each interview and theme. These charts were then analysed to identify similarities and differences across characteristics and themes, to interpret the data and develop findings.

## 5. How we synthesised

We used both quantitative and qualitative data to build a fuller picture of the issues we were exploring. The survey gave us breadth, showing how common certain experiences or views were across groups. The interviews and focus groups gave us depth, helping us understand the reasons behind those patterns and bringing people's voices into the findings.

We used a process of synthesis to bring these data sources together. Survey patterns were explored through interviews to understand the underlying reasons, while insights from interviews were checked against survey data to see how widespread they were. We also used regression analysis to identify predictive relationships in the survey data and then explored these in the qualitative data to assess how they played out in real-life contexts.

Alongside synthesis, we used triangulation to test and strengthen our findings. This involved cross-checking to assess whether the same conclusions held across different data sources, and where they didn't, it prompted deeper investigation. This added confidence to our findings and helped ensure they were grounded in multiple perspectives.

All quotes used in the report come from interviews, focus groups, or open-ended survey responses, and were selected to illustrate key themes.

## 6. How we checked

The data in this report was subjected to a rigorous internal review process for both quantitative and qualitative data and was carried out at multiple stages across the evaluation process.

The research team held workshops to discuss the survey data and the interview results, looking for patterns across the different types of data, looking for outliers that can support causal explanations, and to identify any gaps in our understanding that required additional investigation. This team approach to analysis and interpretation of the data ensures consistency and transparency, and overall rigor.

Following analysis of the data from the surveys and interviews, external sense-making discussions were conducted to test interpretation of the results, findings, and areas for action with:

- ERO specialists in reviewing school practice
- key individuals and organisations in the sector
- the project's Expert Advisory Group and Steering Group

We then tested and refined the findings and recommendations with the Ministry of Education to ensure they were useful and practical.

## 7. The caveats for this report

As with all research, there are some limitations to our methodology and scope.

In terms of scope, this research:

- uses a specific definition of PLD, based on guidance from the EEF, it excludes some activities that could be understood as PLD
- does not examine specific development opportunities or programmes or comment on their quality
- does not make judgements about individual principals', boards' or providers' practices in designing, selecting and embedding PLD.

In terms of the data collection:

- Samples are broadly representative of the national characteristics for schools and teachers. Where some groups are proportionally underrepresented, sample sizes were sufficiently robust for between group comparisons.
- School surveys: Since participation was voluntary, it's possible that there was a non-response bias. To address this risk, we sent the survey to all schools to ensure maximum reach and held the survey open for a long duration, with reminders to boost numbers.
- Interviews: Since participation in our interviews was voluntary, it relied on schools having time to engage with our research team which may have resulted in some biases in our sample. To mitigate this, we ensured that the sample reflected a wide range of settings and demographics. The research team offered a flexible approach to interviewing, enabling schools to participate when it was most suitable to their schedule. Additionally, it is also possible participants provided socially desirable responses in the interviews. We mitigated this risk by ensuring that all data would be treated confidentially, and no identifiable information would be disclosed.



## Part 2: Data

Part 2 presents the detailed data from our [main report](#), including the:

1. survey tools we used,
2. data tables our findings come from.

### 1. Survey tools

In this section we provide the following surveys used for our review:

- a. Teacher survey
- b. Leaders survey
- c. Board of Trustees survey
- d. PLD Provider Survey

#### a. Teacher survey

##### 1. What region is your school in?

- Bay of Plenty, Waairiki
- Canterbury, Chatham Islands
- Hawke's Bay, Tairāwhiti
- Nelson, Martinborough, West Coast
- Otago, Southland
- Tai Tokerau
- Taranaki, Whanganui, Manawhatū
- Auckland
- Waikato
- Wellington

##### 2. How long have you been teaching for?

- Less than 2 years
- 2-5 years
- More than 5 years

##### 3. What years do you teach? (choose all that apply)

- 0-3
- 4-6
- 7-8
- 9-11
- 12-13

**4. What learning areas do you teach? (choose all that apply)**

- English
- The Arts
- Health and Physical Education
- Learning Languages
- Mathematics and Statistics
- Science
- Social Sciences
- Technology

**General PLD questions**

We'd like you to consider both internal and external PLD when answering these general questions. As a reminder, for this research we are defining PLD as structured and facilitated activity intended to improved teaching ability. This might include dedicated time to participate in a training day or online course but would not include team meetings or information sessions.

**5. How relevant to the school's priorities was the PLD you attended in the last year?**

- Not relevant at all
- Not very relevant
- Mostly relevant
- Very relevant
- I'm not sure what my school's priorities are

**6. How helpful was the PLD you attended in the last year for improving your teaching practice?**

- Not helpful at all
- Not very helpful
- Mostly helpful
- Very helpful

**7. How helpful was the PLD you attended in the last year for supporting you to make a difference for students' outcomes?**

- Not helpful at all
- Not very helpful
- Mostly helpful
- Very helpful

**Internal PLD questions**

These question are specific to Internal PLD, that is PLD that is provided by leaders or other staff at your school. We'd like you to consider only the most recent internal PLD you attended. As a reminder, for this research we are defining PLD as structured and facilitated activity intended to improve teaching ability. This

might include dedicated time to participate in a training day or online course, but would not include team meetings or information sessions.

**8. How much time do you normally spend on one topic during internal PLD sessions? (Could be across multiple sessions)**

- Up to 2 hours
- 2-5 hours
- 6-10 hours
- More than 10 hours

**9. Approximately how many topics for internal PLD have you covered in the last year?**

- 1-2
- 3-4
- 5-6
- 7-10
- More than 10

**10. When did you last attend an internal PLD session?**

- In the last week
- Previously this term
- Term 4 last year
- Earlier than Term 4 last year

**11. What learning area was the most recent internal PLD you attended focused on?**

- English
- The Arts
- Health and Physical Education
- Learning Languages
- Mathematics and Statistics
- Science
- Social Sciences
- Technology
- Other (please specify)

**12. Was it for a group of teachers, for the whole staff, or just you?**

- For a group of teachers
- For the whole staff
- Just me

→ Mixture (parts of it in small group, parts for whole staff, parts individual)

**13. How much did the most recent internal PLD you attended...**

	Not at all	Not much	A little bit	A lot
help you to build knowledge? (by tailoring content and linking to things you already knew)				
help you develop teaching techniques? (such as through instruction, giving feedback to students, using assessments, etc)				
provide you with tools to take what you learned and use it in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)				
motivate you to engage with the content and use the skills you learnt? (e.g. by agreeing on goals, and reinforcing progress)				

**14. After completing this PLD, is it clear how you can use what you learnt and adapt it to your classroom practice?**

- No, not at all
- A little bit
- Yes, definitely

**15. After completing this PLD, is it clear to you what parts of what you learnt have to be followed exactly as taught?**

- No, not at all
- A little bit
- Yes, definitely

**16. After completing this PLD, do you have the time and resources to use what you learnt?**

- No, not at all
- A little bit
- Yes, definitely

**17. After completing this PLD, how often do you use what you learnt in your classroom practice?**

- Never
- Rarely
- Occasionally
- Once a month

- Once a week
- Every day

**18. After completing this PLD, how widely do you use what you learnt in your classroom practice?**

- With no students
- With some students
- With most students
- With all students

**19. Overall, how much did the most recent internal PLD you attended improve your teaching practice?**

- Not at all
- Not very much
- A bit
- A lot

**20. In what ways did the most recent internal PLD you attended improve your teaching practice?**

**21. Has the most recent internal PLD you attended improved outcomes for your students?**

- No, not at all
- No, not very much
- Yes, a bit
- Yes, a lot
- I don't know

### External PLD questions

These questions are specific to External PLD, that is PLD that is provided by someone who does not work at your school. We'd like you to consider only the most recent external PLD you attended. As a reminder, for this research we are defining PLD as structured and facilitated activity intended to improved teaching ability. This might include dedicated time to participate in a training day or online course but would not include team meetings or information sessions.

**22. Approximately how many external PLD programmes have you attended in the last year? (A PLD programme can be one or multiple days)**

- 1-2
- 3-4
- 5-6
- 7-10
- More than 10

**23. When did you last attend an external PLD session?**

- In the last week

- Previously this term
- Term 4 last year
- Earlier than Term 4 last year

**24. What learning area was the most recent external PLD you attended focused on?**

- English
- The Arts
- Health and Physical Education
- Learning Languages
- Mathematics and Statistics
- Science
- Social Sciences
- Technology
- Other (please specify)

**25. Was it for a group of teachers, for the whole staff, or just you?**

- For a group of teachers
- For the whole staff
- Just me
- Mixture (parts of it in small group, parts for whole staff, parts individual)

**26. How much did the most recent internal PLD you attended...**

	Not at all	Not much	A little bit	A lot
help you to build knowledge? (by tailoring content and linking to things you already knew)				
help you develop teaching techniques? (such as through instruction, giving feedback to students, using assessments, etc)				
provide you with tools to take what you learned and use it in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)				
motivate you to engage with the content and use the skills you learnt? (e.g. by agreeing on goals, and reinforcing progress)				

**27. After completing this PLD, is it clear how you can use what you learnt and adapt it to your classroom practice?**

- No, not at all
- A little bit
- Yes, definitely

**28. After completing this PLD, is it clear to you what parts of what you learnt have to be followed exactly as taught?**

- No, not at all
- A little bit
- Yes, definitely

**29. After completing this PLD, do you have the time and resources to use what you learnt?**

- No, not at all
- A little bit
- Yes, definitely

**30. After completing this PLD, how often do you use what you learnt in your classroom practice?**

- Never
- Rarely
- Occasionally
- Once a month
- Once a week
- Every day

**31. After completing this PLD, how widely do you use what you learnt in your classroom practice?**

- With no students
- With some students
- With most students
- With all students

**32. Overall, how much did the most recent external PLD you attended improve your teaching practice?**

- Not at all
- Not very much
- A bit
- A lot

**33. In what ways did the most recent external PLD you attended improve your teaching practice?**

**34. Has the most recent external PLD you attended improved outcomes for your students?**

- No, not at all
- No, not very much
- Yes, a bit
- Yes, a lot
- I don't know

**What can make PLD more relevant and helpful?**

Lastly, these questions are about your general perceptions or thoughts about PLD. Both internal and external PLD can be considered. As a reminder, for this research we are defining PLD as structured and facilitated activity intended to improved teaching ability. This might include dedicated time to participate in a training day or online course, but would not include team meetings or information sessions.

**35. What would make PLD more relevant for you?****36. What would make PLD more helpful for your practice?****b. Leader survey****1. What region is your school in?**

- Bay of Plenty, Waiariki
- Canterbury, Chatham Islands
- Hawke's Bay, Tairāwhiti
- Nelson, Martinborough, West Coast
- Otago, Southland
- Tai Tokerau
- Taranaki, Whanganui, Manawhatū
- Auckland
- Waikato
- Wellington

**2. What is your role?**

- Principal
- Deputy/Assistant Principal
- Curriculum lead
- Other (please specify)



**3. How long have you been in your current role?**

- Less than 2 years
- 2 - 5 years
- More than 5 years

**4. What do you do in relation to PLD? Select all that apply**

- Select PLD
- Organise PLD
- Deliver / implement PLD
- Review outcomes of PLD
- I have no role in PLD

**5. How many of your teachers have undertaken internal (provided by school staff) PLD programmes in the last year?**

- All / nearly all
- Most (over half)
- Half
- Some (less than half)
- None / very few

**6. How many of your teachers have undertaken external PLD programmes in the last year?**

- All / nearly all
- Most (over half)
- Half
- Some (less than half)
- None / very few

**7. In the last year, roughly how much of your teacher PLD was funded from your operational budget?**

- All
- More than half
- Half
- Less than half
- None
- Don't know

**8. If teacher aides (TAs) deliver structured interventions or programmes at your school – are those TAs provided with formalised PLD about the interventions?**

- Yes, all TAs who deliver structured interventions receive PLD

- Some TAs who deliver structured interventions receive PLD, but not all
- No, but we do provide some informal training for our TAs in structured interventions
- No, TAs are not provided with any PLD nor any informal training

**9. Can you choose from a range of PLD providers?**

- Yes, for all learning areas
- Yes, for some learning areas
- No

**10. Do you have a plan for teachers' PLD for this year?**

- Yes
- Only for some teachers / teachers in some year levels
- Only for part of the year
- No

**11. What plans have you outlined for PLD for teachers for the year?**

**12. Do you think the PLD that is available to your school is well suited to the needs of your school and your teachers?**

- Yes - very
- Yes - quite
- Somewhat
- Not at all

**13. How do you find PLD to use for your school?**

- Word of mouth
- MoE recommendations
- PLD provider reaching out
- Previous experience
- Internet searches
- Teacher requests
- Other (please specify)

**14. What are your top 3 considerations when you select PLD for your school?**

- Availability
- Good reputation
- Funding / budget
- Teachers need it
- Teachers want it

- Students need it
- The community wants it
- Realistic time commitment
- It is adaptable to school needs
- The content and structure of the programme
- Other (please specify)

**15. Is the selection of PLD focused on improving student outcomes?**

- Always
- Usually
- Sometimes
- Rarely
- Never

**16. Can you tell us a bit more about why not?**

**17. How often do you consider these aspects of a programme's content when you select PLD for your school?**

	Always	Usually	Sometimes	Rarely	Never
Tailors content to teachers, to build their knowledge?					
Develops existing teaching techniques?					
Provides new teaching techniques?					
Gives teachers practical tools to use in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)					
Motivates teachers to use the skills they have learnt? (e.g. by agreeing on goals, and reinforcing progress)					

**18. After teachers have attended a PLD, how often does your school:**

	Always	Usually	Sometimes	Rarely	Never
Allow time for teachers to adapt lesson plans to apply what they learned?					
Have follow up sessions with teachers about what they learned?					
Provide the resources needed for teachers to apply and use what they have learnt inPLD?					

**19. To what extent do the following things impact on the planning of PLD in your school (for both planning internal PLD, and selecting external PLD):**

	A lot	A little	Not at all
Programme features align with school priorities			
Our school leadership supports effective implementation			
Consideration of the time and resource pressures of staff			
Having appropriate delivery mechanisms in place (e.g. weekly seminars)			
Includes ways to give teachers feedback about improving their practice			

**20. How much improvement have you seen in teacher practice from PLD at your school?**

- A lot
- A little
- None
- Don't know

**21. How much improvement have you seen in student outcomes from PLD at your school?**

- A lot
- A little
- None

→ Don't know

**22. Do you expect teachers to monitor the effectiveness of any changes they make to practice following PLD?**

→ A lot

→ A little

→ Not at all

**23. How do you know if a PLD programme has been effective?**

→ Teachers give good feedback

→ Teachers say they are more confident

→ Student outcomes improve

→ Student behaviour improves

→ We don't measure this

→ Other (please specify)

**24. What can get in the way of selecting or designing PLD as well as you might want?**

**25. What gets in the way of changing teaching practice as a result of PLD**

**c. School board survey**

**1. What region is your school in?**

→ Bay of Plenty, Waairiki

→ Canterbury, Chatham Islands

→ Hawke's Bay, Tairāwhiti

→ Nelson, Martinborough, West Coast

→ Otago, Southland

→ Tai Tokerau

→ Taranaki, Whanganui, Manawatū

→ Auckland

→ Waikato

→ Wellington

**2. How long have you been on the school's board?**

→ Less than 2 years

→ 2-5 years

→ Over 5 years

**3. Are you a:**

- Board chair
- Presiding member
- Member

**4. Roughly, how much of your teacher PLD last year was covered by the school's operational budget?**

- All
- More than half
- Half
- Less than half
- None
- Don't know

**5. Does your school have a plan outlined for PLD of teachers for the year?**

- Yes - for all teachers
- Yes - for some teachers / teachers in some year levels
- Only for part of the year
- No
- Don't know

**6. Which of the following do you discuss at Board meetings? Please select all that apply**

- What teacher PLD is needed
- What options we have for teacher PLD
- Other (please specify)
- We don't discuss teacher PLD

**7. As a member of the Board, do you have a role in selecting PLD for your school?**

- Yes
- No
- Don't know

**8. When talking about selecting PLD, do you focus on aligning it with your school's priorities?**

- Yes - always
- Yes - sometimes
- No
- Don't know

**9. What are your main considerations when selecting PLD for your school?**

**10. Does the school report to the Board on effectiveness of teacher PLD?**

- Yes
- No
- Don't know

**11. In your view, is teacher PLD is a worthwhile investment?**

- Yes
- No
- Don't know

**d. Provider survey****1. In which region(s) do you provide PLD services? (choose all that apply)**

- Bay of Plenty, Waairiki
- Canterbury, Chatham Islands
- Hawke's Bay, Tairāwhiti
- Nelson, Martinborough, West Coast
- Otago, Southland
- Tai Tokerau
- Taranaki, Whanganui, Manawatū
- Auckland
- Waikato
- Wellington

**2. Which of this best describes your PLD organisation?**

- University/Polytechnic
- Large private provider
- Smaller or mid-sized private provider
- Standalone or solo PLD provider
- Other (please specify):

**3. Do you design the PLD you deliver, or is it provided to you? (If you hold multiple roles, please only select one when you answer these questions)**

- I design the PLD that I deliver
- I am provided the PLD to deliver

**4. How long have you been involved in providing PLD?**

- Less than 1 year
- 1-2 years
- 3-5 years
- 6-10 years
- More than 10 years

**5. How many schools have you delivered PLD for in the last year?**

- 1
- 2-3
- 4-5
- 6-9
- 10 or more

**6. Do you/your organisation charge for PLD delivery based on:**

- The programme in total
- The number of people attending
- Both (Set price for programme and then an additional cost per person)
- Other (please specify)

**7. How much of the PLD you deliver is covered by the Ministry of Education contract?**

- All
- More than half
- Half
- Less than half
- None
- Don't know

**8. Do you offer your programmes one school at a time or to a group of schools together? (choose all that apply)**

- One school
- Groups/clusters of schools
- A combination

**9. Do you offer PLD primarily online or in person?**

- Online
- In person
- A combination (my programmes include both online and in person instruction)



→ Both (some of my programmes are online, others are in person)

**10. International evidence highlights 5 areas of PLD that we are interested in hearing your views about. In your experience and expertise, how much focus should be given to each of these areas when designing PLD?**

	None at all	Not much	A little bit	A lot
Tailors content to teachers, to build their knowledge?				
Develops existing teaching techniques?				
Provides new teaching techniques?				
Gives teachers practical tools to use in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)				
Motivates teachers to use the skills they have learnt? (e.g. by agreeing on goals, and reinforcing progress)				

**11. Is there anything you would like to share about those 5 areas? And are there other elements of effective PLD that you have found to be particularly important to consider?**

**12. Is the design of your PLD peer-reviewed by anyone? If so, who?**

→ No

→ Not sure

→ Yes (please specify by who)

**13. Do you measure the impact/effectiveness of your PLD programme?**

→ No

→ Yes

**14. How do you measure the impact/effectiveness of your PLD?**

**15. Do you make changes based on these measures?**

→ No

→ Not sure

→ Yes (please describe)

**16. What do you think is most important for delivering PLD in a way that is effective for teachers?**

**17. What gets in the way of teachers implementing what they learn in PLD?**

**18. What do you think will help teachers transfer what they learn at PLD into their classroom practice?**

## 2. data tables

### Regression data tables

#### Model 1a: Logistic regression predicting how often teachers Use What They Learnt in the Classroom After Internal PLD

**Table A1:** Regression model after completing this PLD, how often do you use what you learnt in your classroom practice?

Variable	Odds Ratio	t-stats
<b>How much did the most recent internal PLD you attended...</b>		
help you to build knowledge? (by tailoring content and linking to things you already knew)	2.1**	(2.6)
help you develop teaching techniques? (such as through instruction, giving feedback to students, using assessments, etc)	2.1***	(2.8)
provide you with tools to take what you learned and use it in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)	1.6	(1.5)
motivate you to engage with the content and use the skills you learnt? (e.g. by agreeing on goals, and reinforcing progress)	3.2***	(3.8)
<b>School Characteristics</b>		
Rurality ( <i>ref. Rural</i> )		
Urban	1.0	(0.1)
School size ( <i>ref. Small + Very Small</i> )		
Medium	0.8	(-0.6)
Large + Very Large	0.8	(-0.6)
Equity Index ( <i>ref. Fewer socioeconomic barriers to achievement</i> )		
Moderate socioeconomic barriers to achievement	1.3	(1.2)
More socioeconomic barriers to achievement	1.5	(1.3)
School type ( <i>ref. Primary</i> )		
Secondary	0.4***	(-4.1)
<b>Observations</b>	636	

Notes: t statistics in parentheses: \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1.

### Model 1b: Logistic Regression Predicting How Often Teachers Use What They Learnt in the Classroom After External PLD

**Table A2:** Regression model after completing this PLD, how often do you use what you learnt in your classroom practice?

Variable	Odds Ratio	t-stats
<b>How much did the most recent external PLD you attended...</b>		
help you to build knowledge? (by tailoring content and linking to things you already knew)	1.1	(0.2)
help you develop teaching techniques? (such as through instruction, giving feedback to students, using assessments, etc)	2.6***	(2.6)
provide you with tools to take what you learned and use it in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)	3.7***	(3.0)
motivate you to engage with the content and use the skills you learnt? (e.g. by agreeing on goals, and reinforcing progress)	2.0	(1.6)
<b>School Characteristics</b>		
Rurality ( <i>ref. Rural</i> )		
Urban	0.5	(-1.6)
School size ( <i>ref. Small + Very Small</i> )		
Medium	0.5*	(-1.9)
Large + Very Large	0.4**	(-2.5)
Equity Index ( <i>ref. fewer socioeconomic barriers to achievement</i> )		
Moderate socioeconomic barriers to achievement	2.4***	(3.3)
More socioeconomic barriers to achievement	1.6	(1.5)
School type ( <i>ref. Primary</i> )		
Secondary	0.2***	(-6.7)
<b>Observations</b>	545	

Notes: t statistics in parentheses: \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1.

**Model 2a: Logistic Regression Predicting Student Outcome Improvement Following Internal PLD****Table A3:** *Regression model: How much improvement have you seen in student outcomes from PLD at your school?*

Variable	Odds Ratio	t-stats
<b>How much did the most recent internal PLD you attended...</b>		
help you to build knowledge? (by tailoring content and linking to things you already knew)	5.14***	(5.10)
help you develop teaching techniques? (such as through instruction, giving feedback to students, using assessments, etc)	2.68***	(2.88)
provide you with tools to take what you learned and use it in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)	1.59	(1.25)
motivate you to engage with the content and use the skills you learnt? (e.g. by agreeing on goals, and reinforcing progress)	5.02***	(4.62)
<b>School Characteristics</b>		
Rurality ( <i>ref. Rural</i> )		
Urban	1.04	(0.08)
School size ( <i>ref. Small + Very Small</i> )		
Medium	1.79	(1.18)
Large + Very Large	1.41	(0.66)
Equity Index ( <i>ref. fewer socioeconomic barriers to achievement</i> )		
Moderate socioeconomic barriers to achievement	1.34	(0.91)
More socioeconomic barriers to achievement	2.15	(1.63)
School type ( <i>ref. Primary</i> )		
Secondary	0.68	(-1.27)
<b>Observations</b>	519	

Notes: t statistics in parentheses: \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1.

**Model 2b: Logistic Regression Predicting Student Outcome Improvement Following External PLD****Table A4:** *regression model how much improvement have you seen in student outcomes from PLD at your school?*

Variable	Odds Ratio	t-stats
<b>How much did the most recent external PLD you attended...</b>		
help you to build knowledge? (by tailoring content and linking to things you already knew)	1.18	(0.32)
help you develop teaching techniques? (such as through instruction, giving feedback to students, using assessments, etc)	2.73**	(2.22)
provide you with tools to take what you learned and use it in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)	2.55*	(1.89)
motivate you to engage with the content and use the skills you learnt? (e.g. by agreeing on goals, and reinforcing progress)	8.53***	(4.34)
<b>School Characteristics</b>		
Rurality ( <i>ref. Rural</i> )		
Urban	0.86	(-0.22)
School size ( <i>ref. Small + Very Small</i> )		
Medium	0.38	(-1.50)
Large + Very Large	0.31*	(-1.74)
Equity Index ( <i>ref. fewer socioeconomic barriers to achievement</i> )		
Moderate socioeconomic barriers to achievement	1.52	(1.07)
More socioeconomic barriers to achievement	2.15	(1.42)
School type ( <i>ref. Primary</i> )		
Secondary	0.69	(-1.02)
<b>Observations</b>	358	

Notes: t statistics in parentheses: \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1.

### Model 3a: Logistic Regression Predicting Teaching Improvement Following Internal PLD from the Teachers' Perspective.

**Table A5:** Regression model how much improvement have you seen in teacher practice from PLD at your school?

Variable	Odds Ratio	t-stats
<b>How much did the most recent internal PLD you attended...</b>		
help you to build knowledge? (by tailoring content and linking to things you already knew)	4.59***	(4.79)
help you develop teaching techniques? (such as through instruction, giving feedback to students, using assessments, etc)	3.51***	(4.23)
provide you with tools to take what you learned and use it in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)	2.78***	(3.14)
motivate you to engage with the content and use the skills you learnt? (e.g. by agreeing on goals, and reinforcing progress)	4.74***	(4.80)
<b>School Characteristics</b>		
Rurality ( <i>ref. Rural</i> )		
Urban	2.08	(1.40)
School size ( <i>ref. Small + Very Small</i> )		
Medium	3.55***	(2.61)
Large + Very Large	2.67**	(1.97)
Equity Index ( <i>ref. fewer socioeconomic barriers to achievement</i> )		
Moderate socioeconomic barriers to achievement	1.22	(0.68)
More socioeconomic barriers to achievement	3.34***	(2.74)
School type ( <i>ref. Primary</i> )		
Secondary	0.58**	(-1.97)
<b>Observations</b>	636	

Notes: t statistics in parentheses: \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1.

### Model 3b: Logistic Regression Predicting Teaching Improvement following External PLD from the teachers' perspective.

**Table A6:** regression model how much improvement have you seen in teacher practice from PLD at your school?

Variable	Odds Ratio	t-stats
<b>How much did the most recent external PLD you attended...</b>		
help you to build knowledge? (by tailoring content and linking to things you already knew)	1.52	(0.81)
help you develop teaching techniques? (such as through instruction, giving feedback to students, using assessments, etc)	3.99***	(3.71)
provide you with tools to take what you learned and use it in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)	4.53***	(3.40)
motivate you to engage with the content and use the skills you learnt? (e.g. by agreeing on goals, and reinforcing progress)	5.54***	(4.16)
<b>School Characteristics</b>		
Rurality ( <i>ref. Rural</i> )		
Urban	1.12	(0.2)
School size ( <i>ref. Small + Very Small</i> )		
Medium	0.33*	(-1.96)
Large + Very Large	0.50	(-1.17)
Equity Index ( <i>ref. fewer socioeconomic barriers to achievement</i> )		
Moderate socioeconomic barriers to achievement	1.04	(0.12)
More socioeconomic barriers to achievement	1.45	(0.77)
School type ( <i>ref. Primary</i> )		
Secondary	0.68	(-1.17)
<b>Observations</b>	545	

Notes: t statistics in parentheses: \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1.

### Model 3c: Logistic Regression Predicting Teaching Improvement Based on PLD Selection from the Leaders' Perspective

**Table A7:** regression model how much improvement have you seen in teacher practice from PLD at your school?

Variable	Odds Ratio	t-stats
<b>How often do you consider these aspects of a programme's content when you select PLD for your school?</b>		
Tailors content to teachers, to build their knowledge?	3.36*	(1.91)
Develops existing teaching techniques?	0.58*	(-1.71)
Provides new teaching techniques?	1.07	(0.27)
Gives teachers practical tools to use in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)	2.91*	(1.84)
Motivates teachers to use the skills they have learnt? (e.g. by agreeing on goals, and reinforcing progress)	2.09*	(1.91)
<b>School Characteristics</b>		
Rurality ( <i>ref. Rural</i> )		
Urban	0.97	(-0.10)
School size ( <i>ref. Small + Very Small</i> )		
Medium	1.36	(1.08)
Large + Very Large	1.37	(0.98)
Equity Index ( <i>ref. fewer socioeconomic barriers to achievement</i> )		
Moderate socioeconomic barriers to achievement	0.87	(-0.54)
More socioeconomic barriers to achievement	1.09	(0.26)
School type ( <i>ref. Primary</i> )		
Secondary	0.53***	(-2.60)
<b>Observations</b>	473	

Notes: t statistics in parentheses: \*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1.



## Data tables – teachers

### PLD overall

**Table A8:** *Overall data tables teacher surveys*

How long have you been teaching for?	Number	Percent
More than 5 years	637	78%
2-5 years	105	13%
Less than 2 years	76	9%
<b>Total</b>	<b>818</b>	<b>100%</b>
<b>How helpful was the PLD you attended in the last year for improving your teaching practice</b>		
Very helpful	193	24%
Mostly helpful	412	50%
Not very helpful	167	20%
Not helpful at all	46	6%
<b>Total</b>	<b>818</b>	<b>100%</b>
<b>How helpful was the PLD you attended in the last year for supporting you to make a difference for students' outcomes?</b>		
Very helpful	187	23%
Mostly helpful	409	50%
Not very helpful	179	22%
Not helpful at all	43	5%
<b>Total</b>	<b>818</b>	<b>100%</b>

## Internal PLD

**Table A9:** *teachers' internal PLD survey responses*

How much time do you normally spend on one topic during internal PLD sessions?	Number	Percent
Up to 2 hours	320	48%
2-5 hours	213	32%
6-10 hours	83	12%
More than 10 hours	55	8%
<b>Total</b>	<b>671</b>	<b>100%</b>
Approximately how many topics for internal PLD have you covered in the last year?		
1-2	159	23%
3-4	280	41%
5-6	131	19%
7-10	62	9%
More than 10	47	7%
<b>Total</b>	<b>679</b>	<b>100%</b>
When did you last attend an internal PLD session?		
Earlier than Term 4 last year	32	5%
In the last week	314	46%
Previously this term	269	40%
Term 4 last year	64	9%
<b>Total</b>	<b>679</b>	<b>100%</b>
Was it for a group of teachers, for the whole staff, or just you?		
For a group of teachers	163	24%
For the whole staff	460	68%
Just me	7	1%
Mixture (parts of it in small group, parts for whole staff, parts individual)	49	7%
<b>Total</b>	<b>679</b>	<b>100%</b>

How much did the most recent internal PLD you attended...	Number	Percent
<i>Help you to build knowledge? (by tailoring content and linking to things you already knew)</i>		
A lot	232	34%
A little bit	272	40%
Not much	110	16%
Not at all	62	9%
<b>Total</b>	<b>676</b>	<b>100%</b>
<i>Help you develop teaching techniques? (such as through instruction, giving feedback to students, using assessments, etc)</i>		
A lot	173	26%
A little bit	264	39%
Not at all	96	14%
Not much	141	21%
<b>Total</b>	<b>674</b>	<b>100%</b>
<i>Provide you with tools to take what you learned and use it in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)</i>		
A lot	208	31%
A little bit	267	40%
Not much	113	17%
Not at all	88	13%
<b>Total</b>	<b>676</b>	<b>100%</b>
<i>Motivate you to engage with the content and use the skills you learnt? (e.g. by agreeing on goals, and reinforcing progress)</i>		
A lot	226	33%
A little bit	251	37%
Not much	109	16%
Not at all	90	13%
<b>Total</b>	<b>676</b>	<b>100 %</b>

After completing internal PLD, is it clear how you can use what you learnt and adapt it?	Number	Percent
Yes, definitely	322	47%
A little bit	275	41%
No, not at all	82	12%
<b>Total</b>	<b>679</b>	<b>100%</b>
After completing internal PLD, is it clear to you what parts of what you learnt have to be followed exactly as taught?		
Yes, definitely	250	37%
A little bit	285	42%
No, not at all	144	21%
<b>Total</b>	<b>679</b>	<b>100%</b>
After completing this PLD, do you have the time and resources to use what you learnt?		
Yes, definitely	184	27%
A little bit	333	49%
No, not at all	162	24%
<b>Total</b>	<b>679</b>	<b>100%</b>
After completing this PLD, how often do you use what you learnt in your classroom?		
Every day	241	35%
Occasionally	153	23%
Once a week	136	20%
Once a month	26	4%
Rarely	83	20%
Never	40	6%
<b>Total</b>	<b>679</b>	<b>100%</b>
After completing this PLD, how widely do you use what you learnt in your classroom		
With all students	255	38%
With most students	180	27%
With some students	176	26%
With no students	68	10%
<b>Total</b>	<b>679</b>	<b>100%</b>

Overall, how much did the most recent internal PLD you attended improve your teaching	Number	Percent
A lot	135	20%
A bit	313	46%
Not very much	132	19%
Not at all	99	15%
<b>Total</b>	<b>679</b>	<b>100%</b>
<b>Has the most recent internal PLD you attended improved outcomes for your students</b>		
Yes, a lot	101	15%
Yes, a bit	262	39%
No, not very much	106	16%
No, not at all	88	13%
I don't know	122	18%
<b>Total</b>	<b>679</b>	<b>100%</b>

## External PLD

**Table A10:** *teachers' external PLD survey responses*

Approximately how many external PLD programmes have you attended in the last year	Number	Percent
1-2	318	55%
3-4	161	28%
5-6	62	11%
7-10	16	3%
More than 10	19	3%
<b>Total</b>	<b>576</b>	<b>100%</b>
<b>When did you last attend an external PLD session?</b>		
In the last week	87	15%
Previously this term	165	28%
Term 4 last year	152	26%
Earlier than Term 4 last year	181	31%
<b>Total</b>	<b>585</b>	<b>100%</b>

Was it for a group of teachers, for the whole staff, or just you?	Number	Percent
For the whole staff	167	29%
For a group of teachers	303	52%
Mixture (parts of it in small group, parts for whole staff, parts individual)	27	5%
Just me	88	15%
<b>Total</b>	<b>585</b>	<b>100%</b>
<b>How much did the most recent external PLD you attended...</b>		
<i>help you to build knowledge? (by tailoring content and linking to things you already knew)</i>		
A lot	276	47%
A little bit	221	38%
Not much	58	10%
Not at all	28	5%
<b>Total</b>	<b>583</b>	<b>100%</b>
<i>help you develop teaching techniques? (such as through instruction, giving feedback to students, using assessments, etc)</i>		
A lot	205	35%
A little bit	229	39%
Not much	85	15%
Not at all	63	11%
<b>Total</b>	<b>582</b>	<b>100%</b>
<i>provide you with tools to take what you learned and use it in the classroom? (e.g. by encouraging monitoring or planning lessons and actions)</i>		
A lot	241	41%
A little bit	222	38%
Not much	70	12%
Not at all	50	9%
<b>Total</b>	<b>583</b>	<b>100%</b>
<i>motivate you to engage with the content and use the skills you learnt? (e.g. by agreeing on goals, and reinforcing progress)</i>		
A lot	253	43%
A little bit	207	36%
Not much	74	13%

Not at all	49	8%
<b>Total</b>	<b>583</b>	<b>100%</b>
<b>After completing external PLD, is it clear how you can use what you learnt and adapt it to your classroom practice</b>		
Yes, definitely	306	52%
A little bit	222	38%
No, not at all	57	10%
<b>Total</b>	<b>585</b>	<b>100%</b>
<b>After completing external PLD, is it clear to you what parts of what you learnt have to be followed exactly as taught?</b>		
Yes, definitely	239	41%
A little bit	254	43%
No, not at all	92	16%
<b>Total</b>	<b>585</b>	<b>100%</b>
<b>After completing this PLD, do you have the time and resources to use what you learnt</b>		
Yes, definitely	175	30%
A little bit	286	49%
No, not at all	124	21%
<b>Total</b>	<b>585</b>	<b>100%</b>
<b>After completing this PLD, how often do you use what you learnt in your classroom</b>		
Every day	236	40%
Once a week	104	18%
Once a month	25	4%
Occasionally	118	20%
Rarely	65	11%
Never	37	6%
<b>Total</b>	<b>585</b>	<b>100%</b>

After completing this PLD, how widely do you use what you learnt in your classroom	Number	Percent
With all students	240	41%
With most students	138	24%
With some students	147	25%
With no students	60	10%
<b>Total</b>	<b>585</b>	<b>100%</b>
<b>Overall, how much did the most recent external PLD you attended improve your teaching</b>		
A lot	176	30%
A bit	257	44%
Not very much	93	16%
Not at all	59	10%
<b>Total</b>	<b>585</b>	<b>100%</b>
<b>Has the most recent external PLD you attended improved outcomes for your students</b>		
I don't know	97	17%
Yes, a lot	145	25%
Yes, a bit	214	37%
No, not very much	61	10%
No, not at all	68	12%
<b>Total</b>	<b>585</b>	<b>100%</b>



## Teachers cross tabs

### Teachers' survey responses by type of school

**Table A11:** amount of Internal PLD teachers receive by type of school

Amount of time	Primary		Secondary		Total
	Number	Percent	Number	Percent	
Up to 2 hours	121	42%	188	54%	309
2-5 hours	93	32%	103	30%	196
6-10 hours	45	16%	32	9%	77
More than 10 hours	29	10%	22	6%	51
<b>Total</b>	<b>288</b>	<b>100%</b>	<b>345</b>	<b>100%</b>	<b>633</b>

**Table A12:** Number of *external* PLD programmes teachers attended by type of school

Number of programmes	Primary		Secondary		Total
	Number	Percent	Number	Percent	
1-2	119	48%	179	62%	298
3-4	80	32%	68	23%	148
5-6	33	13%	26	9%	59
7-10	7	3%	9	3%	16
More than 10	10	4%	9	3%	19
<b>Total</b>	<b>249</b>	<b>100%</b>	<b>291</b>	<b>100%</b>	<b>540</b>

**Table A13:** when teachers last received *internal* PLD by school type

When last attended internal PLD	Primary		Secondary		Total
	Number	Percent	Number	Percent	
In the last week	89	30%	212	61%	301
Previously this term	145	49%	101	29%	246
Earlier than Term 4 last year	18	6%	13	4%	31
Term 4 last year	41	14%	22	6%	63
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>348</b>	<b>100%</b>	<b>641</b>

**Table A14:** When teachers last attended an *external* PLD programme by school type

When last attended external PLD	Primary		Secondary		Total
	Number	Percent	Number	Percent	
In the last week	53	21%	26	9%	<b>79</b>
Previously this term	97	40%	55	18%	<b>152</b>
Earlier than Term 4 last year	41	16%	132	44%	<b>173</b>
Term 4 last year	59	24%	86	29%	<b>145</b>
<b>Total</b>	<b>250</b>	<b>100%</b>	<b>299</b>	<b>100%</b>	<b>549</b>

**Table A15:** Format of *internal* PLD teachers receive by school type

Format of internal PLD	Primary		Secondary		Total
	Number	Percent	Number	Percent	
For a group of teachers	72	25%	86	25%	<b>158</b>
For the whole staff	190	65%	241	69%	<b>431</b>
Just me	4	1%	3	1%	<b>7</b>
Mixture (parts of it in small group, parts for whole staff, parts individual)	27	9%	18	5%	<b>45</b>
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>348</b>	<b>100%</b>	<b>641</b>

**Table A16:** Format of *external* PLD teachers receive by school type

Format of external PLD	Primary		Secondary		Total
	Number	Percent	Number	Percent	
For a group of teachers	115	46%	175	59%	<b>290</b>
For the whole staff	100	40%	51	17%	<b>151</b>
Just me	20	8%	63	21%	<b>83</b>
Mixture (parts of it in small group, parts for whole staff, parts individual)	15	6%	10	3%	<b>25</b>
<b>Total</b>	<b>250</b>	<b>100%</b>	<b>299</b>	<b>100%</b>	<b>549</b>

**Table A17:** *whether teachers' most recent **internal** improved outcomes for students by school type*

	Primary		Secondary		Total
	Number	Percent	Number	Percent	
Yes, a bit + a lot	168	57%	172	49%	<b>340</b>
No, not very much + not at all	60	20%	123	35%	<b>183</b>
Don't know	65	22%	53	15%	<b>118</b>
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>348</b>	<b>100%</b>	<b>641</b>

**Table A18:** *whether teachers' most recent **external** improved outcomes for students by school type*

	Primary		Secondary		Total
	Number	Percent	Number	Percent	
Yes, a bit + a lot	146	58%	190	64%	<b>336</b>
No, not very much + not at all	43	17%	74	25%	<b>117</b>
Don't know	61	24%	35	12%	<b>96</b>
<b>Total</b>	<b>250</b>	<b>100%</b>	<b>299</b>	<b>100%</b>	<b>549</b>

**Table A19:** *whether teachers' most recent **internal** PLD improved teaching practice by school type*

	Primary		Secondary		Total
	Number	Percent	Number	Percent	
A bit + a lot	221	75%	201	58%	<b>422</b>
Not very much + not at all	72	25%	147	42%	<b>219</b>
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>348</b>	<b>100%</b>	<b>641</b>

**Table A20:** *whether teachers' most recent **external** PLD improved teaching practice by school type*

	Primary		Secondary		Total
	Number	Percent	Number	Percent	
A bit + a lot	198	79%	213	71%	<b>411</b>
Not very much + not at all	52	21%	86	29%	<b>138</b>
<b>Total</b>	<b>250</b>	<b>100%</b>	<b>299</b>	<b>100%</b>	<b>549</b>

**Table A21:** *Whether teachers have the time and resources to use what they learnt from **internal** PLD*

	Primary		Secondary		Total
	Number	Percent	Number	Percent	
Yes, definitely	85	29%	84	24%	169
A little bit	161	55%	157	45%	318
No, not at all	47	16%	107	31%	154
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>348</b>	<b>100%</b>	<b>641</b>

**Table A22:** *Whether teachers have the time and resources to use what they learnt from **external** PLD by school type*

	Primary		Secondary		Total
	Number	Percent	Number	Percent	
Yes, definitely	90	36%	74	25%	164
A little bit	120	48%	148	50%	268
No, not at all	40	16%	77	26%	117
<b>Total</b>	<b>250</b>	<b>100%</b>	<b>299</b>	<b>100%</b>	<b>549</b>

**Table A23:** *how often teachers used what they learnt in **internal** PLD by school type*

	Primary		Secondary		Total
	Number	Percent	Number	Percent	
Every day	142	48%	88	25%	230
Once a week	58	20%	67	19%	125
Once a month	6	2%	19	5%	25
Occasionally	55	19%	92	26%	147
Rarely	23	8%	56	16%	79
Never	9	3%	26	7%	35
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>348</b>	<b>100%</b>	<b>641</b>

**Table A24:** how often teachers used what they learnt in *external* PLD by school type

	Primary		Secondary		Total
	Number	Percent	Number	Percent	
Every day	144	58%	82	27%	226
Never	11	4%	22	7%	33
Occasionally	32	13%	79	26%	111
Once a month	4	2%	19	6%	23
Once a week	40	16%	58	19%	98
Rarely	19	8%	39	13%	58
<b>Total</b>	<b>250</b>	<b>100%</b>	<b>299</b>	<b>100%</b>	<b>549</b>

**Table A25:** how clear teachers are on how they can use what they learnt from *internal* PLD and adapt it

	Primary		Secondary		Total
	Number	Percent	Number	Percent	
Yes, definitely	159	54%	141	41%	300
A little bit	111	38%	153	44%	264
No, not at all	23	8%	54	16%	77
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>348</b>	<b>100%</b>	<b>641</b>

### Teachers by socioeconomic community

**Table A26:** How often teachers use what they learnt from *internal* PLD in their classroom by socioeconomic community

	Fewer		Moderate		More		Total
	Number	Percent	Number	Percent	Number	Percent	
Every day	62	34%	115	33%	64	45%	241
Once a week	37	20%	72	21%	26	18%	135
Occasionally	40	22%	88	25%	25	18%	153
Once a month	9	5%	10	3%	7	5%	26
Rarely	25	14%	46	13%	12	9%	83
Never	12	6%	19	5%	7	5%	38
<b>Total</b>	<b>185</b>	<b>100%</b>	<b>350</b>	<b>100%</b>	<b>141</b>	<b>100%</b>	<b>676</b>

**Table A27:** How clear it is to teachers that they can use what they learnt and adapt it following *internal* by socioeconomic community

	Fewer		Moderate		More		Total
	Number	Percent	Number	Percent	Number	Percent	
Yes, definitely	84	45%	152	43%	85	60%	321
A little bit	81	44%	151	43%	43	30%	275
No, not at all	20	11%	47	13%	13	9%	80
<b>Total</b>	<b>185</b>	<b>100%</b>	<b>350</b>	<b>100%</b>	<b>141</b>	<b>100%</b>	<b>676</b>

**Table A28:** how much teachers' most recent *internal* PLD improved your teaching practice by socioeconomic community

	Fewer		Moderate		More		Total
	Number	Percent	Number	Percent	Number	Percent	
Not very much + not at all	67	36%	131	37%	31	22%	229
A bit + a lot	118	64%	219	63%	110	78%	447
<b>Total</b>	<b>185</b>	<b>110%</b>	<b>350</b>	<b>100%</b>	<b>141</b>	<b>100%</b>	<b>676</b>

**Table A29:** how much teachers' most recent *external* PLD improved their teaching practice by socioeconomic community

	Fewer		Moderate		More		Total
	Number	Percent	Number	Percent	Number	Percent	
Not very much + not at all	40	25%	80	26%	31	26%	151
A bit + a lot	117	75%	226	74%	88	74%	431
<b>Total</b>	<b>157</b>	<b>100%</b>	<b>306</b>	<b>100%</b>	<b>119</b>	<b>100%</b>	<b>582</b>

## Teachers in schools with a high proportion of Māori students

**Table A30:** Number of *external* PLD programmes attended by teachers according to proportion of Māori students at the school

	Not high Māori roll		High Māori roll		Total
	Number	Percent	Number	Percent	
1 - 2	215	56%	100	53%	315
3-4	100	26%	61	33%	161
5-6	46	12%	16	9%	62
7-10	8	2%	8	4%	16
More than 10	17	4%	2	1%	19
<b>Total</b>	<b>386</b>	<b>100%</b>	<b>187</b>	<b>100%</b>	<b>573</b>

**Table A31:** how much teachers' most recent *internal* PLD improved student outcomes by proportion of Māori students on the school roll

	Not high Māori roll		High Māori roll		Total
	Number	Percent	Number	Percent	
Yes, a bit + a lot	241	53%	121	55%	362
No, not very much + not at all	134	29%	58	26%	192
Don't know	80	18%	42	19%	122
<b>Total</b>	<b>455</b>	<b>100%</b>	<b>221</b>	<b>100%</b>	<b>676</b>

**Table A32:** how much teachers' most recent *external* PLD improved student outcomes by proportion of Māori students on the school roll

	Not high Māori roll		High Māori roll		Total
	Number	Percent	Number	Percent	
Yes, a bit + a lot	233	59%	124	66%	357
No, not very much + not at all	94	24%	34	18%	128
Don't know	66	17%	31	16%	97
<b>Total</b>	<b>393</b>	<b>100%</b>	<b>189</b>	<b>100%</b>	<b>582</b>

## Teachers by school size

**Table A33:** Amount of time teachers usually spend on one topic of internal PLD by school size

	Small + very small		Medium		Large + very large		Total
	Number	Percent	Number	Percent	Number	Percent	
2-5 hours	31	30%	48	27%	117	33%	196
6-10 hours	17	17%	17	10%	43	12%	77
More than 10 hours	5	5%	22	12%	24	7%	51
Up to 2 hours	49	48%	91	51%	169	48%	309
<b>Total</b>	<b>102</b>	<b>100%</b>	<b>178</b>	<b>100%</b>	<b>353</b>	<b>100%</b>	<b>633</b>

**Table A34:** Number of internal topics covered by teachers in *internal* PLD by school size

	Small + very small		Medium		Large + very large		Total
	Number	Percent	Number	Percent	Number	Percent	
1 - 2	38	37%	45	25%	68	19%	151
3-4	50	49%	66	36%	146	41%	262
5-6	8	8%	45	25%	69	19%	122
7-10	4	4%	14	8%	41	12%	59
More than 10	3	3%	12	7%	32	9%	47
<b>Total</b>	<b>103</b>	<b>100%</b>	<b>182</b>	<b>100%</b>	<b>356</b>	<b>100%</b>	<b>641</b>

**Table A35:** Number of *external* PLD programmes attended by teachers in the last year by school size

	Small + very small		Medium		Large + very large		Total
	Number	Percent	Number	Percent	Number	Percent	
1 - 2	47	52%	81	50%	170	59%	298
3-4	31	34%	49	30%	68	24%	148
5-6	8	9%	20	12%	31	11%	59
7-10	2	2%	5	3%	9	3%	16
More than 10	3	3%	6	4%	10	3%	19
<b>Total</b>	<b>91</b>	<b>100%</b>	<b>161</b>	<b>100%</b>	<b>288</b>	<b>100%</b>	<b>540</b>



## Teachers from Urban and Rural schools

**Table A36:** Amount of *internal* PLD teachers from Urban and Rural schools have received

	Urban		Rural		Total
	Number	Percent	Number	Percent	
Up to 2 hours	282	49%	37	42%	319
2-5 hours	187	32%	25	28%	212
6-10 hours	64	11%	19	22%	83
More than 10 hours	47	8%	7	8%	54
<b>Total</b>	<b>580</b>	<b>100%</b>	<b>88</b>	<b>100%</b>	<b>668</b>

**Table A37:** Number of *external* PLD programmes teachers from Urban and Rural schools have attended in the last year

	Urban		Rural		Total
	Number	Percent	Number	Percent	
1-2	279	57%	36	43%	315
3-4	128	26%	33	39%	161
5-6	53	11%	9	11%	62
7-10	11	2%	5	6%	16
More than 10	18	4%	1	1%	19
<b>Total</b>	<b>489</b>	<b>100%</b>	<b>84</b>	<b>100%</b>	<b>573</b>

## Teachers by experience level

**Table A38:** Amount of *internal* PLD completed by teachers by years of experience

	2- 5 years		Less than 2 years		More than 5 years		Total
	Number	Percent	Number	Percent	Number	Percent	
Up to 2 hours	32	39%	31	52%	257	49%	320
2-5 hours	30	37%	24	40%	159	30%	213
6-10 hours	12	15%	5	8%	66	12%	83
More than 10 hours	8	10%	0	0%	47	9%	55
<b>Total</b>	<b>82</b>	<b>100%</b>	<b>60</b>	<b>100%</b>	<b>529</b>	<b>100%</b>	<b>671</b>

**Table A39:** Number of *external* PLD programmes completed by teachers by years of experience

	2- 5 years		Less than 2 years		More than 5 years		Total
	Number	Percent	Number	Percent	Number	Percent	
1-2	30	47%	28	55%	260	56%	<b>318</b>
3-4	24	38%	9	18%	128	28%	<b>161</b>
5-6	6	9%	6	12%	50	11%	<b>62</b>
7-10	1	2%	4	8%	11	2%	<b>16</b>
More than 10	3	5%	4	8%	12	3%	<b>19</b>
<b>Total</b>	<b>64</b>	<b>100%</b>	<b>51</b>	<b>100%</b>	<b>461</b>	<b>100%</b>	<b>576</b>

**Table A40:** How clear it is to teachers how they can use what they learnt in *internal* PLD and adapt it by years of teaching experience

	2- 5 years		Less than 2 years		More than 5 years		Total
	Number	Percent	Number	Percent	Number	Percent	
Yes, definitely	44	54%	37	62%	241	45%	<b>322</b>
A little bit	32	39%	19	32%	224	42%	<b>275</b>
No, not at all	6	7%	4	7%	72	13%	<b>82</b>
<b>Total</b>	<b>82</b>	<b>100%</b>	<b>60</b>	<b>100%</b>	<b>537</b>	<b>100%</b>	<b>679</b>

**Table A41:** how widely teachers use their most recent *internal* PLD by years of teaching experience

	2- 5 years		Less than 2 years		More than 5 years		Total
	Number	Percent	Number	Percent	Number	Percent	
With all students	34	41%	24	40%	197	37%	<b>255</b>
With most students	22	27%	19	32%	139	36%	<b>180</b>
With some students	22	27%	14	23%	140	26%	<b>176</b>
With no students	4	5%	3	5%	61	11%	<b>68</b>
<b>Total</b>	<b>82</b>	<b>100%</b>	<b>60</b>	<b>100%</b>	<b>537</b>	<b>100%</b>	<b>679</b>

## Primary Teachers whose most recent external PLD was for English

**Table 42:** How often primary school teachers use their most recent *external* PLD – English vs non English PLD

	English		Not English		
	Number	Percent	Number	Percent	Total
Every day	78	71%	66	47%	144
Once a week	12	11%	28	20%	40
Once a month	1	1%	3	2%	4
Occasionally	15	14%	17	12%	32
Rarely	2	2%	17	12%	19
Never	2	2%	9	6%	11
<b>Total</b>	<b>110</b>	<b>100%</b>	<b>140</b>	<b>100%</b>	<b>250</b>

**Table A43:** How widely primary school teachers use what they learnt after completing *external* PLD by English and non English PLD

	English		Not English		
	Number	Percent	Number	Percent	Total
With all students	71	65%	65	46%	136
With most students	27	25%	22	16%	49
With some students	11	10%	35	25%	46
With no students	1	1%	18	13%	19
<b>Total</b>	<b>110</b>	<b>100%</b>	<b>140</b>	<b>100%</b>	<b>250</b>

**Table A44:** How much *external* PLD improved student outcomes by English and non English PLD

	English		Not English		
	Number	Percent	Number	Percent	Total
Yes, a bit + a lot	67	61%	79	56%	146
No, not very much + not at all	11	10%	32	23%	43
Don't know	32	29%	29	21%	61
<b>Total</b>	<b>110</b>	<b>100%</b>	<b>140</b>	<b>100%</b>	<b>250</b>

## Leaders

**Table A45:** *Leaders overall survey responses*

How many of your teachers have undertaken external PLD programmes in the last year?	Number	Percent
All / nearly all	312	51%
Most (over half)	114	19%
Half	60	10%
Some (less than half)	112	18%
None / very few	11	2%
<b>Total</b>	<b>609</b>	<b>100%</b>
In the last year, roughly how much of your teacher PLD was funded from your operational budget?		
All	115	19%
More than half	221	36%
Half	89	15%
Less than half	98	16%
None	21	3%
Don't know	65	11%
<b>Total</b>	<b>609</b>	<b>100%</b>
If teacher aides (TAs) deliver structured interventions or programmes at your school are those TAs provided with formalised PLD about the intervention		
Yes, all TAs who deliver structured interventions receive PLD	279	46
Some TAs who deliver structured interventions receive PLD, but not all	189	31
No, but we do provide some informal training for our TAs in structured interventions	118	19
No, TAs are not provided with any PLD nor any informal training	23	4
<b>Total</b>	<b>609</b>	<b>100%</b>

How much improvement have you seen in teacher practice from PLD at your school?		
	Number	Percent
A lot	357	64%
A little	183	33%
None	4	1%
Don't know	18	3%
<b>Total</b>	<b>562</b>	<b>100%</b>
How much improvement have you seen in student outcomes from PLD at your school?		
A lot	240	43%
A little	287	51%
None	5	1%
Don't know	30	5%
<b>Total</b>	<b>562</b>	<b>100%</b>
How often do you consider these aspects of a programme's content when you select PLD for your school?		
<i>Help you build knowledge (by tailoring content and linking to things you already know)</i>		
Always	357	70%
Usually	136	27%
Sometimes	17	3%
<b>Total</b>	<b>510</b>	<b>100%</b>
<i>Develops existing teaching techniques</i>		
Always	246	48%
Usually	193	38%
Sometimes	66	13%
Rarely	3	1%
Never	2	0%
<b>Total</b>	<b>510</b>	<b>100%</b>
<i>Provides new teaching techniques</i>		
Always	176	35%
Usually	218	43%

Sometimes	110	22%
Rarely	5	1%
Never	1	0%
<b>Total</b>	<b>510</b>	<b>100%</b>
<i>Gives teachers practical tools to use in the classroom (e.g. by encouraging monitoring or planning lessons and actions)</i>		
Always	314	62%
Usually	178	35%
Sometimes	17	3%
Rarely	1	0%
<b>Total</b>	<b>510</b>	<b>100%</b>
<i>Motivates teachers to use the skills they have learnt (e.g. by agreeing on goals and reinforcing progress)</i>		
Always	296	58%
Usually	181	35%
Sometimes	29	6%
Rarely	4	1%
<b>Total</b>	<b>510</b>	<b>100%</b>
<b>To what extent do the following things impact on the planning of PLD in your school (for both planning internal PLD, and selecting external PLD)?</b>	<b>Number</b>	<b>Percent</b>
<i>Programme features align with school priorities</i>		
A lot	538	97%
A little	15	3%
Not at all	2	0%
<b>Total</b>	<b>555</b>	<b>100%</b>
<i>Our school leadership supports effective implementation</i>		
A lot	508	92%
A little	44	8%
Not at all	3	1%
<b>Total</b>	<b>555</b>	<b>100%</b>
<i>Consideration of time and resource pressures of staff</i>		

A lot	482	87%
A little	70	13%
Not at all	3	1%
<b>Total</b>	<b>555</b>	<b>100%</b>
<i>Having appropriate delivery mechanisms in place (e.g., weekly seminars)</i>		
A lot	359	65%
A little	186	34%
Not at all	10	2%
<b>Total</b>	<b>555</b>	<b>100%</b>
<i>Includes ways to give teachers feedback about improving their practice</i>		
A lot	353	64%
A little	193	35%
Not at all	9	2%
<b>Total</b>	<b>555</b>	<b>100%</b>
<b>Is the selection of PLD focused on improving student outcomes?</b>		
	<b>Number</b>	<b>Percent</b>
Always	417	81%
Sometimes	13	3%
Usually	84	16%
<b>Total</b>	<b>514</b>	<b>100%</b>
<b>What are your top 3 considerations when you select PLD for your school?</b>		
Availability	42	6%
Good reputation	56	8%
Funding / budget	233	35%
Teachers need it	287	43%
Teachers want it	72	11%
Students need it	208	31%
The community wants it	8	1%
Realistic time commitment	86	13%
It is adaptable to school needs	213	32%
The content and structure of the programme	250	37%

<b>Total</b>	<b>667</b>	<b>100%</b>
<b>Do you think the PLD that is available to your school is well suited to the need?</b>		
	<b>Number</b>	<b>Percent</b>
Yes - very	205	35%
Yes - quite	197	34%
Somewhat	168	29%
Not at all	9	2%
<b>Total</b>	<b>579</b>	<b>100%</b>
<b>Do you expect teachers to monitor the effectiveness of any changes they make to practice following PLD</b>		
A lot	349	62%
A little	208	37%
Not at all	5	1%
<b>Total</b>	<b>562</b>	<b>100%</b>
<b>Have follow up sessions with teachers about what they learned?</b>		
Always	111	27%
Usually	175	43%
Sometimes	99	24%
Rarely	20	5%
Never	3	1%
<b>Total</b>	<b>408</b>	<b>100%</b>
<b>How do you find PLD to use for your school?</b>		
Previous experience	373	56%
Teacher requests	300	45%
Word of mouth	294	44%
MoE recommendations	285	43%
PLD provider reaching out	273	41%
Internet searches	100	15%
<b>Total</b>	<b>667</b>	<b>100%</b>



Can you choose from a range of PLD providers ?	Number	Percent
Yes, for all learning areas	97	18%
Yes, for some learning areas	391	72%
No	52	10%
<b>Total</b>	<b>540</b>	<b>100%</b>

## Cross tabs – leaders

**Table A46:** amount of PLD leaders say is funded from their school's operational budget by school type

	Primary		Secondary		Total
	Number	Percent	Number	Percent	
All	54	13%	56	29%	<b>110</b>
More than half	143	36%	72	38%	<b>215</b>
Half	70	17%	18	9%	<b>88</b>
Less than half	79	20%	16	8%	<b>95</b>
None	19	5%	2	1%	<b>21</b>
Don't know	37	9%	27	14%	<b>64</b>
<b>Total</b>	<b>402</b>	<b>100%</b>	<b>191</b>	<b>100%</b>	<b>593</b>

**Table A47:** proportion of primary and secondary school leaders who see improvement in teaching practice following PLD

	Primary		Secondary		Total
	Number	Percent	Number	Percent	
A lot	256	69%	90	51%	<b>346</b>
A little	103	28%	77	44%	<b>180</b>
Don't know	11	3%	7	4%	<b>18</b>
None	2	1%	2	1%	<b>4</b>
<b>Total</b>	<b>372</b>	<b>100%</b>	<b>176</b>	<b>100%</b>	<b>548</b>

**Table A48:** *proportion of primary and secondary school leaders who expect teachers to monitor the effectiveness of any changes teacher's make following PLD*

	Primary		Secondary		Total
	Number	Percent	Number	Percent	
A lot	250	67%	88	50%	338
A little	119	32%	86	49%	205
Not at all	3	1%	2	1%	5
<b>Total</b>	<b>372</b>	<b>100%</b>	<b>176</b>	<b>100%</b>	<b>548</b>

**Table A49:** *proportion of primary and secondary school leaders who have follow up sessions with teachers about what they learnt.*

Have follow up sessions with teachers about what they have learnt?	Primary		Secondary		Total
	Number	Percent	Number	Percent	
Always + Usually	213	80%	65	49%	278
Sometimes	45	17%	53	40%	98
Never + rarely	8	3%	15	11%	23
<b>Total</b>	<b>266</b>	<b>100%</b>	<b>133</b>	<b>100%</b>	<b>399</b>

## School boards

**Table A50:** *school boards' survey responses*

In your view, is teacher PLD is a worthwhile investment?	Number	Percent
Yes	823	95%
No	10	1%
Don't know	30	3%
<b>Total</b>	<b>863</b>	<b>100%</b>
Does the school report to the Board on effectiveness of teacher PLD?		
Yes	599	69%
No	196	23%
Don't know	68	8%
<b>Total</b>	<b>863</b>	<b>100%</b>

Does your school have a plan outlined for PLD of teachers for the year?		
Yes - for all teachers	633	63%
Yes - for some teachers / teachers in some year levels	135	13%
Only for part of the year	34	3%
No	28	3%
Don't know	175	17%
<b>Total</b>	<b>1005</b>	<b>100%</b>
When talking about selecting PLD, do you focus on aligning it with your school's priorities		
Yes - always	546	62%
Yes - sometimes	206	23%
No	32	4%
Don't know	96	11%
<b>Total</b>	<b>880</b>	<b>100%</b>
As a member of the Board, do you have a role in selecting PLD for your school?	Number	Percent
Yes	221	24%
No	618	66%
Don't know	100	11%
<b>Total</b>	<b>939</b>	<b>100%</b>
Which of the following do you discuss at Board meetings? Please select all that apply		
What teacher PLD is needed	488	49%
What options we have for teacher PLD	440	44%
We don't discuss teacher PLD	149	15%
<b>Total</b>	<b>1005</b>	<b>100%</b>

## PLD providers

**Table A51:** PLD Providers' survey responses

Do you provide PLD one school at a time or to a group of schools together?	Number	Percent
A combination	66	84%
One school	24	30%
Groups/clusters of schools	17	22%
<b>Total</b>	<b>79</b>	<b>100%</b>
Do you offer PLD primarily online or in person?		
A combination (my programmes include both online and in person instruction)	29	37%
Both (some of my programmes are online, others are in person)	30	38%
In person	20	25%
<b>Total</b>	<b>79</b>	<b>100%</b>
How much do you focus on these elements when you design your PLD programme delivery?	Number	Percent
<i>Tailoring content to teachers to build their knowledge</i>		
A lot	44	96%
A little bit	2	4%
<b>Total</b>	<b>46</b>	<b>100%</b>
<i>Developing existing teaching techniques</i>		
A lot	30	65%
A little bit	16	35%
<b>Total</b>	<b>46</b>	<b>100%</b>
<i>Providing new teaching techniques</i>		
A lot	25	54%
A little bit	21	46%
<b>Total</b>	<b>46</b>	<b>100%</b>
<i>Giving teachers practical tools to use in the classroom (e.g. by encouraging monitoring or planning lessons and actions)</i>		
A lot	38	83%
A little bit	6	13%
Not much	2	4%

<b>Total</b>	<b>46</b>	<b>100%</b>
<i>Motivating teachers to use the skills they have learnt (e.g. by agreeing on goals, and reinforcing progress)</i>		
A lot	43	93%
A little bit	3	7%
<b>Total</b>	<b>46</b>	<b>100%</b>