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Professional learning – effective reading instruction in the early years

Final evaluation report

Centre for Education Statistics and Evaluation

NSW Department of Education

NSW GOVERNMENT

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Background to the professional learning

Effective reading programs have six key components: phonemic awareness, phonics, fluency, vocabulary, comprehension and oral language. Reading programs are also most effective when these components are taught explicitly, systematically and sequentially, as per the explicit instruction model outlined in the Effective reading instruction in the early years of school publication from the Centre for Education Statistics and Evaluation (CESE).[1] Based on this evidence, the NSW Department of Education developed an evidence-based two-day professional learning (PL) course on effective reading instruction, with a strong focus on explicit teaching of phonemic awareness and synthetic phonics.

The PL was provided in 16 locations in NSW in terms 2 and 3 of 2018. The department funded all NSW government schools with a kindergarten enrolment to send up to two teachers to the PL. In total 2,288 staff from 1,089 schools attended the PL.

The PL aimed to help participants better understand the six components of effective reading, to encourage participants to reflect on their own approach to reading instruction and to implement evidence-based practices in their classrooms and schools.

Background to the evaluation

The evaluation measures the impact of the PL on teachers' beliefs about the most effective practices for teaching reading to students; and confidence in implementing these practices; and their practices in the classroom.

We invited everyone who attended the PL to complete three surveys:

- There were **2,288 baseline** responses to the survey conducted, on average, two weeks before the PL.
- There were **1,323 shorter-term** responses to the survey conducted approximately nine weeks after the PL.
- There were **1,151 longer-term** responses to the survey conducted approximately nine months after the PL.

We used a matched data set of 555 participants (24% of all PL attendants) who had completed all three surveys to analyse changes over time. Item analysis presented below includes the sample size of respondents for each question, which will be less than 555 if not all respondents answered each question associated with the item in all three surveys.

We used five classroom observations and 21 interviews to supplement these survey findings, and to provide more detail about the longer-term impacts of the PL in schools.[2]

1 For more: www.cese.nsw.gov.au/publications-filter/literature-review-effective-reading-instruction-in-the-early-years-of-school
2 For a more detailed outline of our methodology, go to page 19.

Summary – the short story

Beliefs

While some beliefs about the most effective practices for teaching reading changed, as anticipated, after the PL, other beliefs did not show this anticipated change. The largest changes were in beliefs about the explicit and systematic teaching of phonics and reading skills. These beliefs aligned with key concepts that were a focus of the PL.

Other beliefs showed little change after the PL, with two alternative explanations:

- First, some participant beliefs about effective reading instruction already aligned with the PL content and therefore did not need to change.
- Second, some beliefs about effective reading instruction, in particular those related to a whole language approach to teaching reading, appear to be deeply entrenched, and more work may be needed to change these beliefs.

Confidence

Participants reported increased confidence for all measured areas of effective reading instruction after the PL and these changes were maintained over time. There is still room for further improvement in participants' feelings of confidence in teaching a comprehensive and effective reading program.

Practice

Areas of practice that had the largest positive changes after the PL were the reading of decodable texts, teaching phonic knowledge and reviewing phonemic awareness. In contrast, developing reading fluency and comprehension strategies had the smallest change. This was expected as these components of reading were not a key focus of the PL.

The majority of participants shared what they learnt from the PL with their colleagues. This tended to happen through informal conversations rather than more formal sharing practices.

Key considerations

Our **key learning** is that the department should continue to offer targeted, engaging, evidence-based PL on learning and teaching topics. This evaluation shows that educators' beliefs, confidence and practice can be positively changed through high-quality PL.

Based on these key findings, we have five **key considerations** for future PL offered by the department on learning and teaching topics:

1. Link the PL more effectively to existing practices, systems and interventions.
2. Use baseline data to more effectively differentiate PL content to the needs of participants.
3. Ensure PL is focused on a smaller number of targeted concepts and a specific audience.
4. Support staff after the initial PL to see long-term changes in practice.
5. Leverage the school executive more effectively to support school-wide changes in practice after PL.

Key findings – the more detailed story

Beliefs

There were significant changes in some participant beliefs after the PL and these changes were either maintained or grew over the longer-term.

The **top four** changes in participant beliefs about effective reading practices in the early years[3] after the PL were:

1. Poor readers can best be characterised as lacking knowledge of the alphabetic code and how it functions – a **39 percentage point increase** in agreement (32% to 71%).

2. Phonics instruction involves teaching speech sounds in isolation and the letter correspondences that represent those sounds – a **22 percentage point increase** in agreement (54% to 76%).

3. Reading is essentially the mechanical skill of decoding, or turning printed symbols into sounds – a **19 percentage point increase** in agreement (43% to 62%).

4. Dividing words into syllables according to rules is a helpful instructional practice for reading new words – a **14 percentage point increase** in agreement (74% to 88%).

Two approaches to teaching reading in schools

The **whole language approach** introduces students to language through context. It assumes that children will acquire each of the components of reading through exposure and incidental guidance and explanation.

In comparison, the **explicit instruction model** is based on methodical and systematic instruction.

Teachers often use components from both of these approaches as part of their teaching practice.

Why was there the most change in these beliefs after the PL?

The PL focused on the concepts underlying these beliefs and was effective in targeting these beliefs. A second reason these particular beliefs changed is there was room for them to change. Before the PL, the number of participants who agreed with these beliefs ranged from 33% to 75%. This indicates that some participants may not have understood the concepts underlying these beliefs initially and that the PL was effective in changing these beliefs.

A possible explanation for why we saw the most change in these beliefs is how reading has historically been taught in NSW government primary schools. The whole language approach was used as the main model for teaching reading in Australia for several decades. There has been a move back to explicit reading instruction only in the last 10-15 years. The PL was based on this explicit instruction model, with a particular focus on synthetic phonics. The four beliefs that had the biggest increase in agreement after the PL are core components of this explicit instruction model and the concepts underlying these beliefs were a central focus of the PL.

> "[The PL] was a really good thing because I felt like I … believe[d] the power of explicit systematic phonics, but at the same time I'm getting all these messages … telling me one thing and then I'm reading all this research and it's telling me a completely different thing … [but] for me [the PL] was a really good validation … we needed to have this phonics conversation."
>
> — Classroom teacher, Year 1

3 For a full list of survey belief items, refer to Appendix A.

Table 1

Agreement with beliefs about the alphabetic code and phonics instruction over time

	Baseline	Shorter-term	Longer-term
Poor readers lack knowledge of alphabetic code (n = 393)	33%	65%	71%
Phonics instruction teaches speech sounds in isolation (n = 389)	54%	66%	76%

Was there continued change following the PL for any of these four beliefs?

There were continued changes in two beliefs at nine months after the PL.

- Poor readers can best be characterised as lacking the knowledge of the alphabetic code and how it functions.
- Phonics instruction involves teaching speech sounds in isolation and the letter correspondences that represent those sounds.

These two beliefs had the biggest shift over time, with a significant increase between baseline agreement and nine weeks after the PL and another significant increase from nine weeks to nine months after the PL, as shown in Table 1.

The other 14 belief statements assessed in the surveys did not have this same pattern of continued change over time.

We cannot definitively explain why there were further increases in agreement for these two specific beliefs over time. We know that explicit reading instruction takes a long time to become embedded practice. One possibility is that as teachers considered ideas about explicit reading instruction, through discussion with colleagues, trialling strategies with students and undertaking their own further study, the concepts underlying these beliefs became more susceptible to change, particularly for participants who had previously held alternative beliefs.

For some beliefs there were no changes about effective reading after the PL because participants' initial beliefs already aligned with the content of the PL.

For example, before the PL:

- Over 92% of participants agreed that the ability to blend (combine speech sounds so as to produce spoken words) is essential in learning to read.
- Over 93% of participants agreed that strong spoken language is the foundation of the development of literacy skills.
- Over 95% of participants agreed that students can be taught to notice, think about and manipulate sounds in spoken language.

There was a **ceiling effect** for these beliefs. While there were slight positive changes by participant for these beliefs following the PL, only so much (positive) change could actually be achieved.

This does not necessarily mean the PL did not influence these beliefs. During follow-up interviews, participants identified that while the PL often did not change their beliefs about effective reading, it did reinforce and validate many of their beliefs.

What is the ceiling effect?

When evaluating the effectiveness of a program, the ceiling effect describes what occurs when participants' scores cluster toward the high end (or best possible score) of the measure. The opposite of the ceiling effect is the floor effect.

> "Honestly, I'd say that [I got these ideas from] the rest of my career and what I'm doing. But as I said, it was an affirmation that 'okay, I am on the right path'."
>
> — Classroom teacher, Kindergarten

The PL did not lead to longer-term changes in some participant beliefs. The concepts underlying these beliefs appear to be based on a whole language approach to teaching reading.

Variation in responses across a sample is common prior to an intervention, in this case the PL. However, we would typically expect to see participants' responses clustering together in follow-up surveys. This is because the PL aimed to change participants' initially-held beliefs that conflicted with the PL.

These four beliefs did not show this anticipated change:

1. Materials for early reading should be written in natural language without concern for short, simple words and sentences.
2. Meaning, rather than phonic cues, should be emphasised during children's early experiences with print.
3. It is difficult to assess vocabulary in a systematic way.
4. English language spelling is too unpredictable for the application of phonic knowledge to work well.

Given the content of the PL, we expected the majority of participants to disagree with these four statements in follow-up surveys after the PL.

The PL did not significantly change the belief 'materials for early reading should be written in natural language without concern for short, simple words and sentences' as seen in Table 2.

After the PL, there was a change in the belief 'meaning, rather than phonic cues, should be emphasised during children's early experiences with print', although there was still variation as seen in Table 3. However, this change was not maintained over time.

In comparison, participants' agreement with the belief 'it is difficult to assess vocabulary in a systematic way' remained relatively unchanged after the PL as seen in Table 4. Nine months after the PL there had been a shift in participant beliefs, with more participants agreeing with this belief and fewer disagreeing.

There was also a change in the belief 'English language spelling is too unpredictable for the application of phonic knowledge to work well' after the PL as seen in Table 5. However, this change was not maintained over time, with responses returning to baseline levels nine months after the PL.

Table 2

Changes over time in participant agreement in the belief materials for early reading should be written in natural language without concern for short, simple words and sentences (n = 389)

	Baseline	Shorter-term	Longer-term
Disagree	33%	42%	38%
Neither disagree or agree	36%	31%	34%
Agree	31%	27%	28%

Table 3

Changes over time in participant agreement in the belief meaning, rather than phonic cues, should be emphasised during children's early experiences with print (n = 393)

	Baseline	Shorter-term	Longer-term
Disagree	20%	34%	28%
Neither disagree or agree	31%	34%	30%
Agree	49%	32%	42%

Table 4

Changes over time in participant agreement in the belief it is difficult to assess vocabulary in a systematic way (n = 386)

	Baseline	Shorter-term	Longer-term
Disagree	26%	32%	21%
Neither disagree or agree	39%	32%	33%
Agree	35%	37%	47%

Table 5

Changes over time in participant agreement in the belief English language spelling is too unpredictable for the application of phonic knowledge to work well (n = 392)

	Baseline	Shorter-term	Longer-term
Disagree	55%	65%	55%
Neither disagree or agree	20%	19%	19%
Agree	26%	16%	26%

Why didn't the PL lead to sustained changes in these beliefs?

This PL involved a two-day workshop and there was no follow-up in schools after this workshop. It would therefore have been a difficult task for the PL to change all participants' beliefs about all six components of effective reading practice. That the PL didn't change all participants' beliefs about teaching reading in the anticipated direction is not a sign that the PL was ineffective, but rather indicates that more work may be needed in this area.

It appears that participants found it easier to agree with a statement about the explicit instruction approach to teaching reading than to disagree with a statement about the whole language approach.

One possible explanation for this is the psychological processes around the formation and perseverance of beliefs. From a psychological perspective, once beliefs have been formed, they can be very resistant to change. Specifically, research shows that initially-held beliefs often persevere even in the face of evidence that contradicts these beliefs.[4] The results of our evaluation are consistent with this.

The four belief statements listed above do not align with an explicit instruction approach to teaching reading. In comparison, the items that had the biggest change in participant responses were those aligned with the PL's focus on an explicit instruction approach.

The demographic profile of the surveyed participants supports this explanation. Over 60% of the participants who completed the surveys had more than 15 years teaching experience. Given the history of how reading has been taught in NSW government primary schools, these participants may have previously been encouraged to teach reading using a whole language approach. Many of the participants who were newer to teaching may have received mentoring and guidance from senior colleagues who are more experienced in the whole language approach. Therefore, for many of the participants, the concepts taught in the PL may have been different from their typical practices of teaching reading.

These explanations align with findings from our classroom observations and interviews with participants. In particular, even though some participants agreed with the explicit instruction approach to teaching reading emphasised in the PL, they continued to use a mixed method pedagogy to teaching reading with components of both the whole language model and explicit instruction model. For these participants, it was easier to incorporate components of the explicit instruction model (as emphasised in the PL) into their teaching practice than to discontinue teaching strategies based on the whole language model.

> "[The PL] made us I think come to a nice healthy middle ground. … We just take what works from everything and then we change it up. … I felt convinced that [you should] not just jump on decodable texts only. I felt it had a place in a whole literacy program."
>
> — Classroom teacher, Year 2

4 For more information about this phenomena, refer to Ross, L, Lepper, M & Hubbard, M 1975, 'Perseverance in self-perception and social perception: Biased attributional processes in the debriefing paradigm', *Journal of Personality and Social Psychology*, vol. 32, pp. 880-892.

Confidence

Participants reported significant positive increases in their confidence to teach reading across all confidence items after the PL. These positive changes were maintained over time.

Why was there an increase in confidence for all items after the PL?

The confidence items assessed through the surveys were mapped against the PL content.[5] This finding indicates that the PL effectively targeted confidence to teach reading. A second reason why confidence increased for all items measured partly because there was room for them to improve. Feelings of confidence before the PL ranged from 26% to 65% per item. Unlike the belief items, we did not see a ceiling effect for any confidence items before the PL.

The **top four** areas that showed the most improvement in confidence after the PL were:

1. Using oral language activities to support reading – a **25 percentage point increase** in feelings of confidence (30% to 55%).

2. Assisting students to monitor their own use of reading strategies – a **22 percentage point increase** in feelings of confidence (31% to 53%).

3. Using a variety of informal and formal reading assessment strategies – a **20 percentage point increase** in feelings of confidence (44% to 64%).

4. Modelling and teaching phonics – a **19 percentage point increase** in feelings of confidence (49% to 68%).

The four items with the biggest change in confidence were core components of the explicit instruction model that was a central focus of the PL. Taken together, it appears the PL was effective in increasing participants' feelings of confidence in teaching an effective reading program in the early years.

> "I just remember coming away feeling very refreshed, and I thought, okay, this is really encouraging, I think I've been on the right track."
>
> — Classroom teacher, Kindergarten

5 For a full list of survey confidence items, refer to Appendix B.

Why weren't there further increases in confidence over time as participants had the opportunity to embed these concepts in their teaching practice?

As participants have the opportunity to implement practices learnt during the PL, we would expect that their confidence in implementing these practices would continue to increase.[6] However, there were no significant changes in participants' reported confidence between nine weeks after the PL and nine months after the PL. Why not?

The Dunning–Kruger effect may help explain these findings.[7] Initially following the PL, participants may have felt a heightened sense of confidence in their abilities to practise many of the concepts taught at the PL. However, in implementing these practices, participants may have experienced unanticipated challenges and discovered areas in which they needed more support. Therefore, while participants' ability to teach reading effectively may have grown over time, their feelings of confidence may have stabilised following the PL as they better understood all of the components involved in teaching an effective reading program.

In summary, changing teaching practice is not an easy task. That the PL (a two-day workshop) led to sustained, if not increased, confidence to teach reading at nine months following the PL is an indication that the PL was effective in achieving its aims.

The findings from our five classroom observations, in conjunction with interviews with participants, appear to support this explanation. Some participants reported challenges in their longer-term implementation of the practices taught during the PL.

What is the Dunning-Kruger effect?

This effect is a cognitive bias in which people mistakenly assess their cognitive ability as greater than it actually is. This overestimation occurs because those who are less skilled in certain areas reach incorrect conclusions, and also because their lack of skill and knowledge then stops them from recognising their errors. It means that the more you learn about a topic, the more you realise how little you actually know about it.

> "Everyone here is very well aware of the fact that we have a five year goal. … This is going to take me at least three years to make [my staff] knowledgeable about this [and] five years before you're an expert."
>
> — Principal

> "[The PL] made me really excited [because] it gave me new ideas. … But the difficulty is then coming back to real school life … we were hit with resistance immediately [by] staff that don't have the same pedagogy and beliefs about how to teach reading or the same level of knowledge because they didn't all go to the professional learning, and then that was what prevented us from being able to implement everything that we might've liked to."
>
> — Classroom teacher, Year 2

6 For more, refer to Kirkpatrick, D 1967, 'Evaluation of training', in R Craig & L Bittel (eds.), *Training and development handbook*, McGraw-Hill, New York City, NY, pp. 87-112.

7 For more information about this effect, refer to Kruger, J & Dunning, D 1999, 'Unskilled and unaware of it: How difficulties in recognising one's own incompetence lead to inflated self-assessments', *Journal of Personality and Social Psychology*, vol. 77, no. 6, pp. 1121-1134.

> “I feel like the PL was really good. I wouldn’t probably have had the confidence to give decodable text a go … but what’s the next? We actually don’t know if what we’re doing with the decodable text is right.”
>
> — Classroom teacher, Year 2

There is still room for improvements in participants’ confidence in teaching reading explicitly, systematically and sequentially while maintaining a comprehensive reading program.

Nine months after the PL, participants’ reported confidence across all measured items ranged from 39% to 73%. Therefore, while the PL was effective in increasing participants’ feelings of confidence in teaching an effective reading program, there is still further need in this area.

The **four** areas where participants were least likely to report feeling confident after the PL were:

1. Understanding of early reading development for the diversity of students (Aboriginal and Torres Strait Islander, English as an additional language or dialect, high potential, gifted and talented, learning difficulty) – **39% of participants** reported feeling confident nine months after the PL.

2. Adjusting assessment to identify reading needs of a diversity of learners – **48% of participants** reported feeling confident nine months after the PL.

3. Modelling and teaching the language features of text – **52% of participants** reported feeling confident nine months after the PL.

4. Assisting students to monitor their own use of reading strategies – **53% of participants** reported feeling confident nine months after the PL.

Why do participants feel the least confident in implementing practices for these four areas after the PL?

One explanation is that the concepts underlying these items have the highest level of difficulty in implementation in teaching practice. Participants also reported feeling the least confident in these areas before the PL. The PL did improve these items, with participants reporting a significant increase in their feelings of confidence after the PL. However, confidence for these items continued to be ranked the lowest by participants nine months after the PL, suggesting they remain the most difficult concepts to implement in practice.

Also, the concepts underlying these items were not a central focus of the PL. Differentiating for diverse learners, assessment, language features and monitoring reading were discussed during the PL, but the main focus of the PL was on teaching students in the early years to read through explicit, systematic and sequential phonics-based instruction. More work may be needed to specifically target these concepts to increase participant confidence in them. This is particularly important for ‘understanding of early reading development for the diversity of students’ as participants were the least confident about this concept after the PL.

Practice

The type of text selection that had the largest positive change after the PL was decodable texts.

Ranked changes to **text selection** after the PL:

71% of surveyed participants are either expanding or intend to expand their **reading of decodable texts** after the PL. No participants said they decreased their reading of decodable texts after the PL.

35% of participants are either expanding or intend to expand their **reading of authentic texts** after the PL. Less than one per cent of participants said they decreased their reading of authentic texts after the PL.

22% of participants are either expanding or intend to expand their **reading of predictable or levelled texts** after the PL. About 10% of participants decreased their reading of predictable or levelled texts after the PL.

Why was the biggest change for reading of decodable texts?

The importance of decodable texts in supporting students to practise the phonic knowledge and skills they learnt was a key focus of the PL. In line with the introduction of the National Literacy Learning Progressions and the inclusion of decodable texts in the reading and viewing component, all NSW government schools with a kindergarten enrolment received a budget adjustment equivalent to $50 per kindergarten student to buy decodable texts. The PL also provided specific advice to participants about buying decodable texts.

Providing increased resources to schools, both through increased funding and PL focused on decodable texts, appears to have been effective in increasing decodable text use in the early years.

> "[If we hadn't have gone to the PL] we'd still be using PM Readers just because it was so ingrained and entrenched. It was what I'd always done. [But we changed] because of the course."
>
> — Classroom teacher, Kindergarten

The areas of practice that had the largest positive changes were phonic knowledge and phonemic awareness. The areas that had the smallest changes in practice were developing reading fluency and comprehension, which were not a key focus of the PL.

The **two** biggest changes to effective reading instruction practices after the PL were:

63% of participants are either expanding or intend to expand their reading instruction practices related to **phonic knowledge** after the PL.

62% of participants are either expanding or intend to expand their reading instruction practices related to **phonemic awareness** after the PL.

Why were the biggest changes in reading practices linked to phonic knowledge and phonemic awareness?

While the PL began with an overview of all six identified components of effective reading (phonemic awareness, phonics, fluency, vocabulary, comprehension and oral language), program developers intentionally narrowed the focus of the PL to two areas, phonics and phonemic awareness. A number of breakout sessions in the two-day workshop were also based on these two components of effective reading. The program developers decided to focus on phonic knowledge and phonemic awareness as these are the two foundational components of reading in the early years and the PL was aimed at kindergarten teachers. That the biggest practice changes were also seen for these two components of reading indicates that the PL effectively achieved its aim of changing teaching practice in the classroom.

The **two** smallest changes to effective reading instruction practices after the PL were:

39% of participants are either expanding or intend to expand their reading instruction practices related to **comprehension strategies** after the PL.

35% of participants are either expanding or intend to expand their reading instruction practices related to **developing reading fluency** after the PL.

Why were the smallest changes in reading practices linked to comprehension strategies and developing reading fluency after the PL?

These components were discussed throughout the PL, however they were not an area of key focus.

Comprehension strategies and reading fluency are more advanced components of effective reading. As this PL was aimed at kindergarten teachers, program developers focused the PL on the components of reading that these teachers most often use as part of their teaching practice. We therefore expected to see smaller changes for comprehension strategies and developing reading fluency than for phonics and phonemic awareness.

Even though these two components had the smallest change in participants' practice after the PL, over a third of participants indicated their practice is, or would be, changed in these areas. Less than 0.5% of participants indicated they decreased their reading instruction practices for any of the main components of effective reading discussed in the PL. Overall, it appears that the PL was effective in helping participants better understand the six components of effective reading in the early years.

The majority of participants shared what they learnt from the PL with their colleagues. This happened more frequently through informal conversations than more formal sharing practices.

94% of participants shared what they had learnt from the PL with colleagues.

4% of participants indicated they intend to share what they learnt from the PL with colleagues.

2% of participants did not, and have no intention to, share what they learnt from the PL.

> "[We shared] at our staff meeting. … It wasn't anything formal … just that we listened to this amazing speaker who knew lots and lots about phonics and reading. And that this is where we think we'd like to go as a whole school."
>
> — Classroom teacher, Kindergarten

> "We got funded for a day together and we used it to look at our scope and sequence for K to 2 with phonics. … And then through the instructional leader because we have a once a week conference time, so we're off class just to talk about this sort of thing."
>
> — Classroom teacher, Year 1

How did participants share what they had learnt through the PL?

Of those participants who shared what they had learnt through the PL, they did this in a variety of ways, including:

86% informal conversations

67% reflection time during regular staff meetings

57% development and sharing of resources from the PL

46% coaching outside of the classroom

45% in-class support

39% team teaching

39% Demonstration lessons

38% in-school PD workshop

Sharing occurred more frequently through brief, informal conversations than through more formal sharing practices. These conversations typically occurred incidentally at staff and stage meetings. Approximately half the participants reported using more formal sharing methods, including collaborative planning and instructional leadership, to share what they had learnt from the PL. This was typically at the encouragement of a member of their school executive.

Why did participants share more frequently through informal conversations?

There are a number of possible explanations for this. The first reason is that schools are very busy places. Sharing knowledge informally via brief conversations is less time and resource intensive for both the sharer and learner than sharing through coaching, in-class support or demonstration lessons.

Second, participants were not yet experts themselves in this newly learnt content. As such, they may have felt more comfortable sharing what they learnt through more informal methods than intensive practices.

Third, sharing practices were not scaffolded for participants during the PL. Interview participants noted that it was not a requirement of the PL itself that content was shared (either formally or informally) with other staff within their schools following the PL. Participants may have been unaware how to more intensively share the PL, particularly if sharing this knowledge was not encouraged by their principal or another executive staff member.

Fourth, a small number of interview participants reported some barriers when trying to share the key messages from the PL, particularly those related to phonics instruction. These barriers included resistant staff members, staff turnover and having the responsibility to share but not the authority to enact change.

As this information was sourced through interviews, we do not know how prevalent these barriers to sharing were across all participants in the PL. However, together with the survey findings and the literature discussed in the 'Effective reading instruction in the early years of school' review, it appears that ideas related to the whole language approach to teaching reading may be deeply entrenched in some schools. More intensive work may be needed at a system level to achieve widespread changes in teaching reading in these schools.

> "The moment we started passing on the good ideas we were hit with resistance. Our kindergarten teacher is Reading Recovery trained … it was really hard to convince people who are from Reading Recovery backgrounds. … But if this was mandatory and it had to be taught in kindergarten especially, then somebody in the next level up could enforce it."
>
> — Classroom teacher, Year 2

Key considerations

Our **key learning** is that the department should continue to offer targeted, engaging, evidence-based PL that is driven by student need. This requires a continuous and coherent approach to PL that consistently builds over time. This evaluation shows that educators' beliefs, confidence and practice can be positively changed through high-quality PL.

Based on this evaluation we have five key considerations for future PL offered by the department, either on effective reading, or other learning and teaching topics.

Link the PL more effectively to existing practices, systems and interventions.

At the time of this evaluation of this PL initiative, other departmental PL in schools included:

- Learning Progressions training
- PL relating to the Early Action for Success program
- PL in relation to L3
- Quality Teaching Rounds.

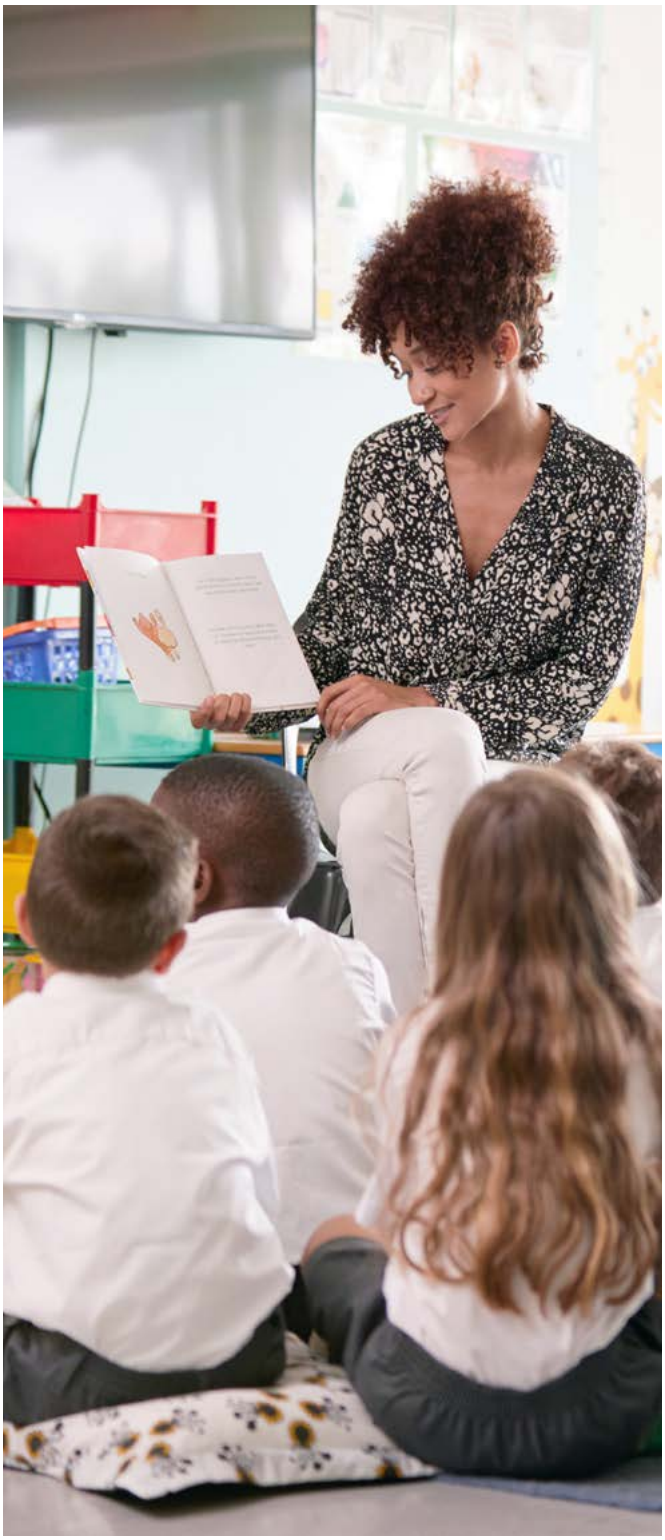
Considerable PL also occurs at an individual school level. Unsurprisingly, many participants reported feeling confused by the conflicting messages from these different initiatives. Rather than risk participants perceiving the PL as yet another add-on, PL initiatives need to be better linked with existing practices, systems and interventions occurring in schools. For example, a session during a future PL initiative could link the PL with these existing initiatives and outline how the PL content aligns with participants' experiences and current knowledge.

Use baseline data to more effectively differentiate PL content to the needs of participants.

The evaluation collected baseline data about participants' beliefs, confidence and practice of implementing an effective reading program. This data identified the knowledge and practices participants already had that aligned with the PL content and those that did not. This baseline data can be used for evaluation purposes, but also to shape the PL itself. The program developers used baseline data to shape this effective reading PL and this practice should continue in future PL.

The content of any PL needs to be broadly in line with what was initially approved by NSW Education Standards Authority (NESA) in order to remain NESA-accredited. However, program developers can use this baseline data to identify which content areas can be reviewed and those that require more focus. Given how difficult it can be to change participant beliefs and practices, it is far more efficient to focus on beliefs and practices in conflict with the PL content rather than those already aligned.

> "I just know that this whole reading debate is just like fashion, it's just a cyclic thing."
>
> — Classroom teacher, Kindergarten



> “You go to a course and then you’re back on class and you have to run. I felt there needed to be follow up with that. I don’t know what kind of follow up. Perhaps it is that they come back in a month and they talk about what they’ve tried and they get to talk to people.”
>
> — Classroom teacher, Year 1

> “So for me, having regular check-ins, or even just another day session, or even a couple of afternoons, or even a video conference to say, ‘Here’s some schools that are doing it really, really well.’”
>
> — Principal

Ensure PL is focused on a smaller number of targeted concepts and a specific audience.

While this PL was aimed at teachers, particularly kindergarten teachers, there was considerable diversity in the participants who attended the PL:

- approximately half (52%) of participants currently teach kindergarten
- almost one-third (30%) are not currently teaching in years K-2.

The diversity of participants makes it difficult for program developers to provide PL content specifically for the needs of all participants. A more homogenous cohort of participants would enable program developers to focus on fewer, more targeted concepts. Better communication between program developers and schools about the aims of the PL and the staff who would receive the most benefit from participating may help address this issue. In order to effectively upskill school leaders in the PL content it may be useful to provide these staff with a condensed version of the PL, either in person, online or via a short document.

Support staff after the initial PL to see long-term changes in practice.

Based on Kirkpatrick’s model of learning evaluation, two to six months following the PL is a crucial time for participants as it is when new systems, structures and habits are typically formed and changes in practice are embedded. Participants often need additional support during this time both to ensure that they use what was taught through the PL and to help develop behavioural changes that are applied to their everyday practice. Teachers should also be encouraged to regularly evaluate whether these changes in their practice are making a positive difference for student progress and achievement.

This may mean more support at a department level, such as short, follow-up seminars from the program developers, or more support within school, such as designated time with an instructional leader.

To maximise the effectiveness of the PL, PL must be perceived as a long-term strategy for creating changes in practice rather than as a one-off activity.

> “If the leader didn’t attend the course, which didn’t happen at this school, they cannot see what was presented is best practice and they cannot then make sure that best practice is happening in their schools, in their K-2 classrooms and in teaching effective reading.”
>
> — Specialist teacher, Years K-2

Leverage the school executive more effectively to support school-wide changes in practice after PL.

With almost all participants (98%) stating that they either have shared, or intend to share, the content of the PL with their colleagues, a sharing culture is clearly embedded within schools. However, for more school-wide changes in practice after the PL, more effective mechanisms for sharing may be needed. For example, research has shown that professional learning communities in schools are more effective than individual champions in encouraging school-wide changes in teaching and learninpractices.[8] We suggest that time during the PL is focused on scaffolding these activities for participants. This will help to ensure that PL is both collaborative and applied, and therefore high impact for teaching staff.

The support of school leadership is essential to ensuring change occurs in schools following PL. School leaders are also critical in creating the culture and structures that build an inclusive learning community. Program developers may need to consider how they can more effectively leverage the school executive during the PL development phase. For example, through tailoring the PL to staff who are not members of the school executive, but providing more information to leadership staff about why the PL is useful and necessary.

What is a professional learning community?

In schools, this type of community involves collaboration, sharing and ongoing critical interrogation of teaching practices in line with professional standards. Professional learning communities should be learning-oriented and promote the growth of teachers and students. While professional learning communities can occur within schools, they can also be more expansive, occurring across schools at a network level.

8 For more information about professional learning communities, refer to Hattie, J (2005) ‘What is the nature of evidence that makes a difference to learning’. Paper presented at the Australian Council for Educational Research conference ‘Using data to support learning’, 7-9 August 2005, Melbourne.

Methods

We collected data through three online surveys, semi-structured interviews and classroom observations.

Survey

All PL participants completed a survey approximately two weeks before the PL (n = 2,288). Completing the survey was a prerequisite for participating in the PL and we used the survey to gather demographic information about participants and baseline measures of participant beliefs, confidence and practice of teaching effective reading in the early years. We then invited participants to participate in two further surveys after the PL to learn more about any shorter-term and longer-term changes in their beliefs, confidence and practice as a result of the PL. These surveys were completed approximately nine weeks (n = 1,323) and nine months (n = 1,151) after the PL. Participation was not compulsory and PL participants were invited to participate in the third survey even if they had not participated in the second one. To measure changes over time we developed a matched dataset of the 555 participants who had completed all three surveys.

The demographic characteristics and teaching experiences of the 555 participants who comprised this matched dataset broadly aligned with the characteristics of the 2,288 PL participants.

Survey items mapped directly onto both the PL content and our evaluation questions. Survey items were matched across the three surveys to measure changes in participants' beliefs, confidence and practice of teaching an effective reading program after the PL.

Of respondents, 42% identified as a classroom teacher, 34% as a member of the school executive, 23% as an instructional leader, 8% as a stage leader and 7% as a specialist teacher in the baseline survey. These categories were not mutually exclusive and participants were able to state that they currently fill more than one role. The majority of participants (72%) said that they currently teach years K-2 while the remainder reported not currently teaching these grades. The majority of participants (83%) also had ten years or more teaching experience, with 2% having less than four years teaching experience. 52% of participants reported having ten years or more experience teaching years K-2.

Advantages of survey data	Limitations of survey data
Cost effective to extract data from a large sample	Can be difficult to validate responses
Can be made anonymous therefore encouraging participants to be more candid	Self-reported, reflecting respondents' perceptions and interpretations
Consistency of questions	Responses generally not as detailed as interviews/focus groups

Interviews

We used 21 semi-structured interviews to supplement the survey findings and to gain a better understanding of how the PL impacted participant beliefs, confidence and practice. Our sample included five classroom teachers, one principal, one assistant principal, one instructional leader and one support staff who had attended the PL from five different schools. Schools were randomly selected from the total sample of schools where at least one staff member had completed the PL and responded to all three surveys. We also interviewed five classroom teachers, four principals and three assistant principals from our selected schools who had not attended the PL to gain a better understanding of the extent to which staff who attended the PL had shared the content with other staff at the school. The interview recordings were transcribed and the interviews were analysed for key themes.

Advantages of interview data	Limitations of interview data
In-depth data	Self-reported, reflecting respondents' perceptions
Can be used to support and give context to survey data	Generally small sample due to cost and logistics
Participants may divulge information they may not include in a survey response	Time intensive for respondents and interviewers
	Interviewer generally has to be present thereby reducing confidentiality and possibly introducing bias

Classroom observations

Classroom observations were also used to supplement survey findings, particularly in evaluating the impact of the PL on practice. One reading-related lesson was observed in five different schools, the same randomly selected schools who formed the interview sample. Two observers conducted each 30 minute observation. During the observations the observers used field notes and audio recording to capture practices. These practices were then separately analysed by each observer against a pre-determined set of 30 behaviours. The 30 behaviours included in the observation tool were again mapped directly against the PL content. Following the observations, observers compared their coded ratings and came to an agreement about the overall behaviours and practices that they had identified in each lesson. While these classroom observations were useful in validating survey data, given limitations including a small sample size and a lack of baseline classroom observation data, we were unable to use this data on its own to inform evaluation questions.

Advantages of classroom observation data	Limitations of classroom observation data
Record actual behaviour rather than reported behaviour	Generally small sample due to cost and logistics
Can be used to support and give context to survey data	Time intensive for respondents and observers
	Can be difficult to be consistent in interpretation
	Observer can influence respondents behaviour introducing bias

Appendices – survey questions and responses

Appendix A – participant responses to all belief items across the three surveys

* D = Disagree, N = Neutral, A = Agree

Survey item	Baseline	Shorter-term	Longer-term
Reading skills must be taught systematically and sequentially	D 8% N 8% A 84%	D 3% N 6% A 91%	D 4% N 6% A 91%
Meaning, rather than phonic cues, should be emphasised during children's early experiences with print	D 20% N 31% A 49%	D 34% N 34% A 32%	D 28% N 30% A 42%
Strong spoken language is the foundation of the development of literacy skills	D 2% N 6% A 92%	D 1% N 2% A 97%	D 1% N 4% A 95%
The ability to blend (combine speech sounds so as to produce spoken words) is essential to learning to read	D 1% N 5% A 94%	D 1% N 3% A 96%	D 1% N 2% A 97%
Phonics instruction involves teaching speech sounds in isolation and the letter correspondences that represent those sounds	D 29% N 17% A 54%	D 21% N 14% A 66%	D 14% N 10% A 76%
Reading is essentially the mechanical skill of decoding, or turning printed symbols into sounds	D 41% N 16% A 44%	D 25% N 15% A 60%	D 26% N 11% A 62%
Students should be encouraged to use content cues including grammar and visuals to identify unknown words	D 3% N 4% A 93%	D 8% N 5% A 87%	D 3% N 10% A 87%
English language spelling is too unpredictable for the application of phonic knowledge to work well	D 55% N 20% A 26%	D 65% N 19% A 16%	D 55% N 19% A 26%
Poor readers can best be characterised as lacking the knowledge of the alphabetic code and how it functions	D 35% N 32% A 33%	D 15% N 21% A 65%	D 6% N 22% A 71%
Decodable texts are essential for developing students' decoding skills	D 13% N 22% A 65%	D 10% N 13% A 77%	D 11% N 19% A 70%
Dividing words into syllables according to rules is a helpful instructional practice for reading new words	D 7% N 19% A 75%	D 5% N 10% A 85%	D 2% N 10% A 88%
Students can be taught to notice, think about and manipulate sounds in spoken language	D 0% N 5% A 95%	D 0% N 2% A 98%	D 1% N 3% A 96%
Materials for early reading should be written in natural language without concern for short, simple words and sentences	D 33% N 36% A 31%	D 42% N 31% A 27%	D 38% N 34% A 28%

* D = Disagree, N = Neutral, A = Agree

Survey item	Baseline	Shorter-term	Longer-term
Comprehension can only be taught after a student has learnt decoding skills	D 72% N 15% A 14%	D 58% N 15% A 27%	D 62% N 16% A 23%
It is difficult to assess vocabulary in a systematic way	D 26% N 39% A 35%	D 32% N 32% A 37%	D 21% N 33% A 47%
Repetition of new vocabulary (sight word lists) will guarantee their inclusion in a child's sight vocabulary	D 34% N 28% A 38%	D 21% N 23% A 56%	D 23% N 22% A 55%

Appendix B – participant responses to all confidence items across the three surveys

* S = Need more support, D = Developing expertise, C = Feel confident

Survey item	Baseline	Shorter-term	Longer-term
Understanding of early reading development for the diversity of students (Aboriginal, English as an additional language or dialect, high potential, gifted and talented, learning difficulty)	S 28% D 46% C 26%	S 13% D 39% C 49%	S 13% D 48% C 39%
Adjusting assessment to identify reading needs of a diversity of learners	S 16% D 44% C 40%	S 7% D 38% C 56%	S 10% D 42% C 48%
Adjusting teaching strategies to support the diversity of learners	S 14% D 41% C 46%	S 4% D 31% C 65%	S 7% D 40% C 54%
Using a variety of informal and formal reading assessment strategies	S 13% D 43% C 45%	S 8% D 33% C 60%	S 6% D 30% C 64%
Using assessment information to inform teaching and adjust reading strategies	S 10% D 36% C 55%	S 5% D 28% C 67%	S 4% D 27% C 69%
Using flexible grouping to meet individual student needs for reading instruction	S 8% D 27% C 65%	S 3% D 24% C 74%	S 3% D 24% C 73%
Using strategies to support fluent reading	S 12% D 42% C 45%	S 3% D 31% C 66%	S 6% D 34% C 60%
Using oral language activities to support reading	S 22% D 48% C 30%	S 6% D 32% C 62%	S 10% D 35% C 55%
Modelling and teaching effective reading strategies	S 8% D 37% C 56%	S 3% D 27% C 71%	S 3% D 28% C 69%
Modelling and teaching comprehension strategies	S 12% D 46% C 42%	S 5% D 36% C 59%	S 5% D 39% C 55%
Modelling and teaching phonics	S 10% D 41% C 49%	S 3% D 24% C 73%	S 4% D 28% C 68%
Modelling and teaching phonemic awareness	S 13% D 43% C 45%	S 4% D 24% C 72%	S 5% D 33% C 62%
Modelling and teaching the language features of text	S 13% D 48% C 39%	S 4% D 38% C 58%	S 8% D 40% C 52%
Text selection appropriate to the needs of students	S 6% D 33% C 61%	S 3% D 29% C 68%	S 3% D 28% C 70%

* S = Need more support, D = Developing expertise, C = Feel confident

Survey item	Baseline	Shorter-term	Longer-term
Targeted feedback to students during reading	S 10% D 37% C 53%	S 4% D 29% C 67%	S 5% D 32% C 63%
Providing students with opportunities to independently apply reading strategies	S 10% D 39% C 51%	S 3% D 28% C 69%	S 5% D 32% C 63%
Assisting students to monitor their own use of reading strategies	S 17% D 52% C 31%	S 5% D 38% C 57%	S 8% D 40% C 53%

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