



Briefing Note

Findings of the Social and Emotional Learning in Early Years Pilot (SEL Pilot) Process Evaluations

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cc	Hon Chris Hipkins, Minister of Education		
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Purpose of report

This paper provides you with the findings from the process evaluations of the three Social and Emotional Learning in Early Years programmes – ENGAGE, The Alert Program and Incredible Beginnings.

Summary

- The Ministry of Education commissioned Standard of Proof to complete process evaluations for each of the three Social and Emotional Learning in Early Years pilot programmes – ENGAGE, The Alert Program and Incredible Beginnings – which were trialled during 2021-22.
- This paper outlines the key evaluation questions and main findings for each of those key evaluation questions.
- Copies of finalised evaluation reports are attached as annexes to this report.
- Following these process evaluations, the Ministry intends to complete impact evaluations for each of the programmes to assess whether and how the programmes support the development of social and emotional skills in young tamariki.

Proactive Release

- a. **agree** that the Ministry of Education release this briefing with any appropriate redactions once it has been considered by you.

☒ **Agree** ☐ **Disagree**



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14/10/2022



Hon Jan Tinetti
Minister of Education

16 /10/ 2022

Background

1. The Social and Emotional Learning in Early Years programme (the SEL Programme) comprises three separate initiatives – ENGAGE, The Alert Program and Incredible Beginnings – which use varying approaches to improve emotional self-regulation for children in Early Learning Services (ELS).
2. The three initiatives began as a pilot scheme in 2020, using funding provided by Cabinet in response to the Royal Commission of Inquiry into the Terrorist Attack on Christchurch Masjidain. The Christchurch terror attack in 2019 prompted a stronger Government focus on improving social cohesion and inclusion of New Zealand’s diverse communities.
3. Social and emotional learning is recognised in the Child and Youth Wellbeing Strategy as a key contributor towards a socially cohesive society. Social and emotional learning, and in particular early self-regulation, are well established predictors of health and success in adulthood. To support long-term social inclusion and cohesion the Government is seeking to strengthen social and emotional skills in of children in the first 6 years of life.
4. Early learning settings are considered a key opportunity to teach self-regulation skills. Self-control measured at age 3-5 predicts health and success in adulthood. Many children make rapid gains in self-regulation during this time; however, progress is not universal. These gains are important as self-regulation skills are expected to support children’s functioning and capacity for learning in school settings by increasing engagement in learning and positive relationships in the short and long term and improves life outcomes. Thus, teaching social and emotional skills, including self-regulation, from an early age can contribute to increased engagement in learning and positive relationships in both the short and long term.
5. Funding was allocated until June 2022, and internal funding has been reprioritised from baseline to fund the pilots until June 2023. 9(2)(f)(iv)
The programme contributes to the aims of several government strategies and priorities including:
 - The work programme for Government’s response to The Royal Commission’s Report into the Terrorist Attack on the Christchurch Masjidain
 - Te Aorerekura - The National Strategy to Eliminate Family Violence and Sexual Violence
 - The Child and Youth Wellbeing Strategy.

Commissioning of the evaluations

6. The Ministry commissioned Standard of Proof to undertake process evaluations of the three SEL programmes during the first year of the pilot. The evaluation set out to examine the tailoring and integration of the programmes for early learning services (ELS) in New Zealand. The Ministry sought to understand the programme’s impact on kaiako knowledge and practices, and the potential for scaling delivery. Standard of Proof took the approach of co-designing the evaluation plans with key Ministry teams, and for each of the evaluations, key evaluation questions were developed.

7. The Ministry took the approach of focusing on the merits of each programme rather than comparing them. Therefore, each evaluation was conducted independently with different Ministry teams involved and each evaluation developed its own evaluation plan, key questions and methodologies.

Delivery and evaluations were impacted by COVID-19

8. The delivery of the three pilot programmes and the evaluation were undertaken during a time heavily impacted by COVID-19. From mid-August 2021 to November/December 2021, Auckland ELS were impacted by the Delta outbreak and associated restrictions. During much of this time Auckland ELS operated on minimal staffing and provided care to children of essential workers only. Other parts of the country were also impacted for shorter periods, and travel between Auckland and other regions was disrupted.
9. From early 2022 Omicron generated high rates of COVID-19 infection across the country. Illness and home-isolation led to high staff absences, and a limited pool of reliever staff. ELS kaiako and managers also reported high levels of stress related to managing sickness, staff shortages and policies and procedures associated with COVID-19 during this time. Options for face-to-face interactions between ELS and families were also disrupted.

ENGAGE

10. ENGAGE is a structured, play-based intervention and aims to improve the ability to self-regulate among young children by using common childhood games. The ENGAGE programme was developed as a parent-led programme by Associate Professor Dione Healey from the University of Otago and has been adapted for early learning service contexts with the support of Methodist Mission Southern (MMS). MMS holds the exclusive licence to deliver ENGAGE.
11. The Ministry of Education (Ministry) funded MMS to pilot the delivery of ENGAGE in early learning services (ELS) and to understand how ENGAGE might be scaled up to nationwide delivery. The pilot involved delivery of ENGAGE to 150 early learning services – 90 in Auckland, 30 in the Bay of Plenty/Wairariki region and 30 in Otago/Southland – between June 2021 and June 2022.

Methodology

12. This process evaluation used a mix of qualitative and quantitative methods to answer the evaluation questions. Standard of Proof engaged with individuals across all roles involved in the design and implementation of ENGAGE. Different methods were used, allowing the evaluation team to test theories and triangulate evidence.
13. The process included:
 - Twenty-one key stakeholder interviews. These were held with Ministry regional staff (3), MMS and its facilitators (11 individuals across six interviews/group interviews), Associate Professor Dione Healey, developer of ENGAGE, and individual interviews with kaiako from 11 services who had participated in the programme. Interviews were conducted between February and June 2022.
 - A survey of ELS asked questions about their experience with the programme, and knowledge and practices related to ENGAGE (n=81 respondents). One kaiako in each centre completed this on behalf of their centre. This survey was conducted in early to mid-June.

- A document review of workshop resources, programme delivery record and future resourcing estimates.
- A sense-making session with Ministry stakeholders, including Ministry and MMS staff, providing an opportunity to share and test the validity of the emerging findings and inform the next steps.

ENGAGE – Key evaluation questions, a summary of the main findings

How, and how well, has the ENGAGE programme design, training and delivery been integrated into and/or tailored for the local ELS environments?

14. ENGAGE supports many of the goals outlined in He Māpuna Te Tamaiti (the Ministry's social and emotional learning resource for ELS kaiako) and Te Whāriki (Early Childhood Curriculum). Kaiako considered ENGAGE to be relevant to their role, feasible to implement with most tamariki aged two and over and most viewed it as easy and practical to implement. A small group of kaiako struggled with implementation, typically due to staffing issues.
15. The ENGAGE games cards were important for making the programme practical for ELS. ELS appreciated the flexibility to select games that addressed gaps in their current practice and facilitators had some freedom to adapt the workshop delivery to the context and existing knowledge of the ELS.
16. ENGAGE was generally viewed to be culturally responsive and able to be adapted to various cultural contexts. Despite these strengths, some kaiako, facilitators and Ministry staff noted there is need for further work.

To what extent has the ENGAGE programme and context influenced kaiako knowledge and practices in social and emotional competency?

17. At least 90% of ELS reported that the training provided kaiako with the knowledge and skills needed to use ENGAGE. Confidence is expected to improve with follow-up sessions. An increase in the variety of games was commonly reported and many services also described introducing an intentional approach to their choice of games and/or introducing specific language into the games they play to emphasise the self-regulation skills being practiced.

What would be required to scale up the programme?

18. Building an experienced facilitator base in a new region is a core task for future scaling up. During the pilot existing facilitators provided critical support for expansion to the two new regions, including online delivery of workshops for at least three months in each. Some of the extended involvement was due to training delays caused by COVID-19. In future, the lead time to train facilitators will depend on whether facilitators shadow delivery to services in their region once these services are recruited, or whether shadowing is undertaken prior by observing delivery in an existing region.
19. In the Bay of Plenty/Waiariki, ELS recruitment was challenging. Seventy percent of those ELS referred by the Ministry were unable or unwilling to participate, in comparison to 20% of those ELS referred by the Ministry in the Otago/Southland region. Some of these recruitment challenges likely arose from the impact of COVID-19 on ELS staffing in the Bay of Plenty/Waiariki. However, the process of establishing the programme in a new

region, including building new relationships with services, may have also played a part in the low rates of recruitment.

20. There is enthusiasm and interest from both MMS and the Ministry in working together on various aspects of ENGAGE. So far Ministry delivery staff have been informed about ENGAGE and have been involved in selecting and/or vetting services for involvement with the programme. Further work could be done to test and clarify how the Ministry could be involved in the future selection of services, recruitment of services and/or embedding of the programme within services.
21. Kaiako reported that the delivery of the ENGAGE programme was feasible in terms of time, other than attendance at two two-hour workshops and some liaison with the facilitators. More generally, follow-up visits were described as an essential component of the programme for many kaiako.
22. Resourcing was disrupted during the pilot due to COVID-19, which led to increased time recruiting services and delays getting facilitators up and running. There is a need for further testing of the resourcing requirements for wider scaling. MMS plans to test these requirements over 2023 and 2024.

Which assessments and measurement approaches are appropriate and feasible for an impact evaluation?

23. There is existing research¹ indicating ENGAGE is associated with increases in the self-regulation skills of tamariki. In addition, the University of Otago is now conducting its own large randomised controlled trial on the impact of ENGAGE in ELS settings. Measures of programme impact on self-regulation skills will be collected from 2023 onwards.
24. Given the large number of services participating in ENGAGE it should also be possible for the Ministry to monitor whether the programme has an impact on the number of tamariki referred to Ministry services.

The Alert Program®

25. The Alert Program® was originally developed by two occupational therapists in the United States. It has been piloted in two New Zealand primary schools and between late 2021 and June 2022, occupational therapists employed by the Ministry of Education adapted and delivered the Alert Program® to thirty early learning services in New Zealand.
26. The Alert Program® uses vocabulary (the analogy of the engine of a car) and sensory strategies to build children's capacity to identify, maintain and regulate their level of alertness so that it is appropriate for the current task and environment.²It provides a framework to teach children and adults how to recognise states of alertness in the context of learning, behaviour and attention, and builds the number of self-regulation strategies that can be used. Importantly, it supports parents' and teachers' understanding of behaviour, how it relates to the child's current level of organisation of the nervous system and that observable behaviour is a child's best attempts to respond adaptively to the demands of a task or situation.

¹ Healey, D., & Healey, M. (2019). Randomized controlled trial comparing the effectiveness of structured-play (ENGAGE) and behavior management (TRIPLE P) in reducing problem behaviors in preschoolers. *Scientific reports*, 9(1), 1-9.
<https://doi.org/10.1038/s41598-019-40234-0>

² Williams, M. S., & Shellenberger, S. (1996). *"How does your engine run?"®: A leader's guide to the Alert Program®® for self-regulation*. Albuquerque, NM: TherapyWorks, Inc.

27. The Alert Program® was originally developed for neurodiverse children with high sensory needs or associated developmental needs but has also been used in a range of settings with neurotypical, developing children. The concept of self-regulation is universal to all people, and everyone develops self-regulation skills on their own individual journey from birth to adulthood.
28. The pilot involved delivery of The Alert Program® to 30 early learning services – 11 in Auckland, seven in Manawatu, one in Wellington and 11 in Otago/Southland – between June 2021 and June 2022.

Methodology

29. This process evaluation used a mix of qualitative and quantitative methods to answer the evaluation questions. Standard of Proof engaged with individuals across all roles involved in the design and implementation of the Alert Program® training. Different methods were used with individuals, allowing the evaluation team to test theories and triangulate evidence.
30. The process included:
 - case studies focused on three early learning services (n=18 interviews), gaining an in-depth understanding of the training and attempts to apply the programme within the ELS, and examining the collaboration between the Occupational Therapist, Ministry speech and language therapist or early intervention therapist, centre kaiako and others involved in delivery of the Alert Program® pilot. Interviews were conducted with the relevant Ministry regional staff, the occupational therapist, an early intervention teacher or speech and language therapist and the ELS kaiako relevant to each case. Interviews occurred from March to early May.
 - a kaiako survey focused on those participating in the training programme to gain a wider range of experiences in the Alert Program® training and implementation (n=73 respondents). This survey was conducted in late May and early June 2022.
 - a document review of the Alert Program® leader's manual and a selection of programme delivery resources.
 - a sense-making session with Ministry stakeholders, including the occupational therapists who delivered the pilot, providing an opportunity to share and test the validity of the emerging findings and inform the next steps.

The Alert Program – Key evaluation questions and a summary of the main findings

How, and how well, has the Alert Program® been adapted for the New Zealand early learning services context and been delivered/integrated into early learning settings?

31. The Alert Program® was able to be implemented by kaiako in early learning services. It was found to be adaptable to local curriculums as well as aligned with existing curriculums, including Te Whāriki and He Māpuna te Tamaiti.
32. Kaiako supported both younger and older children with sensory strategies (e.g., using music to increase or decrease energy levels) through co-regulation. Kaiako reported that they frequently used the Alert Program® and engine analogy as part of their own role

modelling, conversations with children or formal teaching, and there were reports of four-year-olds and some younger children grasping these concepts.

33. Most survey respondents believed occupational therapists' delivery of the Alert Program[®] was presented in a way that was culturally responsive and thus could be integrated with te reo Māori and tikanga. Around half of the survey respondents adapted the sensory tools to the culture of tamariki. Less than a quarter of respondents integrated te reo Māori. Further work could be done to integrate a cultural lens within the programme. Cultural adaptations at a centre level are possible but rely on centres having expertise in this area.

How, and how well, has the adaptation of the Alert Program[®] been integrated into Ministry service delivery as part of universal supports (ways of delivering service, relevance alongside other work, capacity)?

34. Typically, Ministry occupational therapists work in school settings rather than early learning settings. Regional managers, early intervention teachers (EITs), speech and language therapists (SLTs) and other Ministry staff supported occupational therapists with early learning service recruitment, relationship development and knowledge about working in the early learning sector, in some cases engaging in collaborative delivery. EITs and SLTs also drew on Alert Program[®] language and strategies within their support for individual tamariki in those centres or planned to do so in the future. This evaluation found that while occupational therapists are necessary for future delivery, EITs and SLTs could provide additional support for embedding and sustaining the Alert Program[®] in services.

To what extent, and how, has the pilot supported building knowledge and practices in the area of social and emotional learning within early learning services?

35. Kaiako developed knowledge about the Alert Program[®] and reported improved understanding of the behaviour and social and emotional needs of tamariki. The Alert Program[®] enabled kaiako to understand what sensory or support strategies were most appropriate for each child on an individual basis. Most kaiako who responded to the survey reported employing practices taught within The Alert Program[®] on a weekly basis, and nearly half were using some of these strategies daily.

What would be required to set up and implement the Alert Program[®] as part of universal supports (Ministry and specialist staff capacity, coverage) and to sustain knowledge locally (support needs)?

36. During the pilot, the Alert Program[®] training was offered for all kaiako and more intensive support was provided to specific 'champions' in each centre. This model had advantages for programme uptake and sustainability and presents options that allow services to choose what is most feasible for them at the time. This was particularly important given teacher supply challenges related to COVID-19, and the impact upon teacher ratios.
37. Three-quarters of survey respondents reported that the times required for the occupational therapist provided training was feasible. Some kaiako felt the workshops were information heavy and follow-up support is important for embedding and sustaining the Alert Program[®] within ELS. Occupational therapists are essential to future delivery of the Alert Program[®] and findings show that collaborating with early intervention teachers and speech language therapists supporting centres using The Alert Program[®].
38. Stakeholders identified that in future it would be useful to have greater clarity around the programme delivery structure and objectives of sessions, and some would have liked more guidance about how the Alert Program[®] could be best implemented in their centre.

New processes including service negotiation forms and a fidelity checklist have since been developed to address this.

How, and how well, have the cluster approach and networks around the early learning service worked collaboratively to deliver the pilot?

39. Working with clusters of ELS under the same management umbrella supported more straightforward recruitment of centres at the commencement of the Alert Program® in early learning services pilot. Improving the cluster approach has the potential to support collaborative learning, contingent on centres having the time and mechanisms to engage in this.

Which assessments and measurement approaches are appropriate and feasible for an impact evaluation?

40. There was interest among kaiako to assess the impact of the Alert Program®, although time constraints were noted. An impact evaluation could provide important information about the benefits of the Alert Program® in a preschool setting as most previous research has focused on one-to-one interventions in older children with sensory difficulties. In designing an impact evaluation, it will be important to clarify the expected outcomes of the Alert Program® in this age group. Formal self-regulation assessments, such as the BASC-3, can provide validated measures of change in self-regulation and would ideally be used within a waitlist-control design as some improvements in these skills are expected during preschool years.

Incredible Beginnings

41. Incredible Beginnings (IB) is the latest addition to the Incredible Years® suite of programmes developed in the United States for teachers and childcare providers working with tamariki aged 1-5 years. Guided by developmental theory, Incredible Years® programmes are designed to work jointly to promote emotional, social and academic competence, and to improve communication skills in young tamariki.
42. The programme is typically delivered in up to seven full-day workshops covering six different modules including:
- a. building positive relationships with toddlers and managing separation anxiety
 - b. promoting language development in toddlers and pre-schoolers
 - c. social coaching with toddlers and pre-schoolers
 - d. the proactive teacher
 - e. positive behaviour management for toddlers and pre-schoolers.
43. To ensure the programme is implemented with the highest fidelity, group leaders delivering IB are required to undergo a process of Incredible Years® standardised training and peer coaching.

Methodology

44. The evaluation adopted a mixed methods approach to answer key questions, integrating both qualitative and quantitative data. The process integrated a staged data collection approach so that information could be shared with the Ministry at various points

throughout the evaluation, and so that each stage could iteratively build upon the evidence of previous rounds as the programme was being implemented. The data was triangulated and synthesised to answer KEQs.

45. The process included:

Early programme delivery: March

Two stakeholder group interviews with Ministry staff describing the background of IB, group leader recruitment process and the New Zealand context.

Mid-programme delivery: April-May

- Two focus groups with IB group leaders, including eight (of the 14) group leaders trained to facilitate IB, documenting their experiences with recruitment, group leader training and the initial adaptations made to IB.
- Three focus groups with IB participants, including seven (of the 195) ELS staff that were undergoing training within IB, identifying experiences with recruitment, training and IB-relevant practices.
- Secondary data available to the Ministry, and more specifically, ELS and participant enrolments in IB, as documented in the IB registers. This data was combined with publicly available data about ELS from the ECE directory.

Near-end programme delivery: June-July

- A meeting with Ministry stakeholders, sharing the emerging findings and informing the next steps of the evaluation.
- A survey of IB participants (74 of the 195 enrolled participants) and a separate survey of IB group leaders (10 of the 14) to understand the enabling factors relevant to recruitment and training and in relation to kaiako knowledge, abilities and confidence.
- Secondary data available to the Ministry, and more specifically participant attendance in IB training sessions, as documented in the IB registers and fidelity checklists.

Programmes completed: August

- A sense-making session with Ministry stakeholders and IB group leaders, providing an opportunity to share and test the validity of the emerging findings, promote learning and leadership, and inform the next steps.

Incredible Beginnings – Key evaluation questions and a summary of the main findings

How well has IB been implemented?

46. Sixteen programmes were delivered in the initial cohort, each delivering in unique ways in terms of duration, delivery times and delivery modes. Attendance was reasonably high across the cohort. Group leaders reported delivering with fidelity to the content, principles and structure of IB, although resources were used selectively to tailor learning for participants.
47. While the overall target of 80% of participants was not achieved, a high proportion of participants (57%) identified as Māori or Pacific as at least one of their ethnicities. This proportion varied considerably by region/provider. The pilot experience suggests that a personalised approach with ELS, broad engagement methods as well as the group

leaders' existing connections and established trust within these communities supported successful recruitment with this target audience.

48. The combination of New Zealand resources (e.g., He Māpuna Te Tamaiti, native bird puppets and poi) and participant training were helpful for kaiako to understand and apply IB within their ELS. Group leader support and coaching was useful to enhance practices.
49. It is recommended that programme resources and learning be systematically pulled together into a package tailored to New Zealand ELS, to reduce the time and effort required by group leaders to adapt the programme.

How well has IB been adapted to the New Zealand and local context?

50. Group leaders adapted IB by connecting and translating the content to the New Zealand resources, including Te Whāriki, He Māpuna Te Tamaiti and Te Kōrerorero (supporting oral language development) and also weaving karakia, tikanga and waiata into their delivery. The group leaders also selected content for training and the delivery approach and adapted the forms, thereby making the programme more manageable and meaningful for participants. These adaptations required facilitator expertise and knowledge. Nevertheless, most still felt that the programme would benefit from further adaptations, such as broad translation, New Zealand examples used throughout the course, and systematic links made to the relevant New Zealand documents.
51. ELS participants in turn further integrated local context into the strategies and resources. For instance, they translated resources, made relevant visuals and integrated local resources reflective of the bicultural nature relevant to New Zealand.

How well are ELS set up to effectively practice IB strategies in their centres?

52. Participants, for the most part, were confident in implementing the IB strategies and embedding practices relevant to social and emotional learning in their centres. Participants completed the He Māpuna Te Tamaiti self-review tool at the beginning and end of training to assess whether they had made positive shifts in their social and emotional practices. Kaiako reported more embedded practices in relation to a focus on tamariki (e.g., positive relationships, self-worth, empathy and management), a focus on environment (e.g., positive climate, space and routines, values and expectations) and managing behaviours (e.g., positive behaviour, regulating emotions). ELS that trained two or more kaiako realised a greater shift towards more embedded practices in the aspects of environment and managing behaviour, than those that trained only one kaiako in the ELS.
53. Kaiako intend to continue to use the strategies following the end of IB training. Given this intention and confidence, and the early change in practices, we expect that kaiako would continue to practice IB strategies in their ELS and achieve any benefits associated with these practices.

Next Steps

54. Ministry teams and programme deliverers have engaged early with the preliminary findings to reflect on and refine delivery of each of the programmes. Following the reports being considered by your office, we will share the reports with all key stakeholders and use the findings in the report to continue to streamline processes and tailor programme content and resources.

55. During the next phases of the pilot delivery, we plan to complete impact evaluations of the programmes to understand whether and how the programmes are having a positive impact on the development of social and emotional skills on tamariki. We intend to complete the impact evaluations over 2023 and 2024.

Annexes

- Annex 1: ENGAGE 2021-22 Pilot – Process Evaluation
- Annex 2: The Alert Program in Early Years Pilot 2021-22 – Process Evaluation
- Annex 3: Incredible Beginnings Pilot – Process Evaluation

Helping
people
access and
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evidence



ENGAGE 2021-2022 PILOT

Process evaluation

5 October 2022



Authorship

Standard of Proof was created out of passion. Passion for making a difference, for making the lives of individuals, communities and organisations better through evidence. We pride ourselves on providing the highest standard of evidence that is appropriate and useful for the context.

Standard of Proof provides specialist services in:

- Evaluation: We encourage high standards of evidence, we promote relevant and inclusive processes, and we focus on informing decisions.
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- Data science and analytics: We apply statistical modelling, data analysis, and machine learning to unlock data.

The authors of this report include Dr Jennifer Long, Paige Winthrop and Beau Jarvis-Child.

We work with our partners and clients to ensure the right data and the right insight are brought to every project. For this evaluation, we've worked with the Ministry of Education and our partners, supported by Sue Yates (proofreader).

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EXECUTIVE SUMMARY

ENGAGE is a structured, play-based intervention and aims to improve the ability to self-regulate among young children by using common childhood games. The ENGAGE programme was developed as a parent-led programme by Dr Dione Healey from the University of Otago and has been adapted for early learning service contexts with the support of Methodist Mission Southern (MMS). MMS holds the exclusive licence to deliver ENGAGE in early learning settings, as well as in primary schools. Existing research on the ENGAGE programme indicates that both the parent and the early learning service versions of the programme are associated with gains in socio-emotional regulation for tamariki.¹

The Ministry of Education (Ministry) funded MMS to pilot the delivery of ENGAGE in early learning services (ELS) and to understand how ENGAGE might be scaled up to nationwide delivery. The pilot involved delivery of ENGAGE to 150 early learning services – 90 in Auckland, 30 in the Bay of Plenty/Wairariki region and 30 in Otago/Southland² – between June 2021 and June 2022. During that time, ELS experienced significant staffing and sickness stressors related to the 2021 Delta and 2022 Omicron outbreaks that affected delivery of the pilot.

The Ministry commissioned Standard of Proof to undertake a process evaluation of this ENGAGE pilot. The evaluation set out to examine the tailoring and integration of the programme for early learning services (ELS) in New Zealand, the programme's impact on kaiako knowledge and practices, and the potential for scaling delivery. Our key objective was to collect information that would be relevant for future programme implementation.

Evidence was collected through stakeholder interviews, secondary data and documents, and a survey of kaiako in ELS. The data was collected and synthesised to consider the relevance, effectiveness and scalability of the programme. This evidence was used to answer four key evaluation questions (KEQs).

KEQ1. How, and how well, has the ENGAGE programme design, training and delivery been integrated into and/or tailored for the local ELS environments?

Participating kaiako considered the ENGAGE programme relevant to their role, feasible to implement with most tamariki aged two and over and most viewed it as easy and practical to implement. Games cards which contained information about how to play each game, and the self-regulation skills targeted were important for making the programme practical for ELS. ELS appreciated the flexibility to select games that addressed gaps in their current practice. Many ELS have adapted ENGAGE games to their local context or incorporated the ENGAGE principles into other games in their centre.

¹Healey, D., & Healey, M. (2019). Randomized controlled trial comparing the effectiveness of structured-play (ENGAGE) and behavior management (TRIPLE P) in reducing problem behaviors in preschoolers. *Scientific reports*, 9(1), 1-9. <https://doi.org/10.1038/s41598-019-40234-0>

² The regional labels here relate to the Ministry of Education regional boundaries.

ENGAGE games support many of the goals outlined in Te Whāriki³ and He Māpuna te Tamaiti,⁴ including goals around emotional wellbeing, social problem solving and physical movement. ENGAGE also encourages kaiako to play games in ways that use many of the intentional teaching practices included in He Māpuna te Tamaiti (e.g. encouraging, describing, providing vocabulary, fading support, scaffolding, reminding) and by providing deliberate opportunities to discuss feelings, and practise social skills and calming rituals.

The programme was generally viewed to be culturally responsive and able to be adapted for different cultural contexts. Adaptations for Pacific ELS was an existing strength of the Auckland delivery. To expand the programme to a remote area of Bay of Plenty/Waiariki, MMS also contracted two Māori facilitators to support delivery and collaborated with a local community provider with strong te reo and tikanga Māori expertise. Some kaiako, facilitators and Ministry staff identified opportunities for further cultural adaptations such as an increased bicultural lens within the ENGAGE games cards. MMS has additional development work underway to strengthen the bicultural aspects of the programme.

KEQ2. To what extent has the ENGAGE programme and context influenced kaiako knowledge and practices in social and emotional competency?

At least 90% of ELS reported that the training workshops and follow-up support provided kaiako with the knowledge and skills needed to use ENGAGE. A small group of ELS (18%) reported that their staff are not yet very confident about initiating games and activities in their daily interactions with tamariki. Confidence is expected to improve through subsequent follow-up sessions. After the pilot around half of ELS reported increasing the amount of time spent playing social-emotional games by 10 minutes a day on average. For many services, games or activities similar to those on the ENGAGE cards (e.g. puzzles, mindfulness or ball games) were already a common part of their practice prior to participating in ENGAGE.

An increase in the variety of games played was commonly reported through the interviews and open-ended survey feedback. Many services also described introducing an intentional approach to their choice of games and/or introducing specific language into the games they play to emphasise the self-regulation skills being practiced. Following participation in the pilot, most ELS incorporated specific language into their games, intentionally selected games, and played a wide variety of games at least multiple times a week.

Services that played lots of games prior to the pilot reported more frequently implementing ENGAGE-related behaviours (e.g. intentionality, language) following participation in the programme. ENGAGE-related behaviours were also more common among ELS who attended a workshop just for their service, although there are multiple potential factors driving this association.

³ Ministry of Education. (2017). Te Whāriki He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum. Wellington, Ministry of Education. <https://assets.education.govt.nz/public/Documents/Early-Childhood/Te-Whariki-Early-Childhood-Curriculum-ENG-Web.pdf>.

⁴ Ministry of Education. (2019). He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning. Cognition Education for the New Zealand Ministry of Education. <https://tewhariki.s3.ap-southeast-2.amazonaws.com/public/Teaching-strategies-and-resources/Files/He-Mapuna-te-Tamaiti-book.pdf>.

KEQ3: What would be required to scale up the programme?

Building an experienced facilitator base in a new region is a core task for future scaling up. During the pilot existing facilitators provided critical support for expansion to the two new regions, including online delivery of workshops for at least three months in each. Some of the extended involvement was due to training delays caused by COVID-19. In future, the lead time to train facilitators will depend on whether facilitators shadow delivery to services in their region once these services are recruited, or whether shadowing is undertaken prior by observing delivery in an existing region. Recruitment of services also benefited from developing relationships with them and/or face-to-face discussions, both of which take time. MMS favours a staged approach to any future scaling up, with any expansion focused on one or two new regions each year to enable time to build an experienced facilitator base and ELS interest in the programme.

In the Bay of Plenty/Waiariki, ELS recruitment was challenging. Seventy percent of those ELS referred by the Ministry were unable or unwilling to participate, in comparison to 20% of those ELS referred by the Ministry in the Otago/Southland region. Some of these recruitment challenges likely arose from the impact of COVID-19 on ELS staffing in the Bay of Plenty/Waiariki. However, the process of establishing the programme in a new region, including building new relationships with services, may have also played a part in the low rates of recruitment.

There is enthusiasm and interest from both MMS and the Ministry in working together on various aspects of ENGAGE. So far Ministry delivery staff have been informed about ENGAGE, and have been involved in selecting and/or vetting services for involvement with the programme. Further work could be done to test and clarify how the Ministry could be involved in the future selection of services, recruitment of services and/or embedding of the programme within services.

Kaiako reported that the delivery of the ENGAGE programme had little or no impact on ELS and their capacity, other than attendance at two two-hour workshops and some liaison with the facilitators. Around half of the ELS had spoken with whānau about playing games, with many wanting greater support to extend the programme out to whānau. Whānau engagement will be discussed within follow-up visits with these services, however in this pilot some of these discussions were delayed due to COVID-19. More generally, follow-up visits were described as an essential component of the programme for many kaiako.

Resourcing was disrupted during the pilot due to COVID-19, which led to increased time recruiting services and delays getting facilitators up and running. There is a need for further testing of the resourcing requirements for wider scaling. MMS plans to test these requirements over 2023 and 2024.

KEQ4: Which assessments and measurement approaches are appropriate and feasible for an impact evaluation?

There is existing research indicating ENGAGE is associated with increases in the self-regulation skills of tamariki. The University of Otago is now conducting a large randomised controlled trial on the impact of ENGAGE in an ELS setting. Measures of programme impact on self-regulation skills will be collected from 2023 onwards. Given the large number of services participating in ENGAGE it should also be possible for the

Ministry to monitor whether the programme has an impact on the number of tamariki referred to Ministry services.

INTRODUCTION

The New Zealand Government prioritises social and emotional learning as key to wellbeing.

Social inclusion goals seek to improve the conditions under which individuals and groups take part in society such as by improving skills that support participation and reduce discrimination.⁵ Social inclusion is at the core of the United Nation's 2030 Agenda for Sustainable Development. It has also become a priority for several national and multinational political agendas over the last few decades, including in the European Union, the United Kingdom and Australia. The Christchurch terror attack in 2019 prompted a stronger government focus on improving social cohesion and inclusion of New Zealand's diverse communities. In addition, since 2020, social distancing and lockdowns in response to the COVID-19 pandemic have created a social crisis and exacerbated social exclusion – particularly for vulnerable populations,⁶ while taking a toll on mental health, including that of children and adolescents.⁷

Social and emotional learning is recognised in the Child and Youth Wellbeing Strategy as a key contributor towards a socially cohesive society.⁸ Social and emotional learning and in particular early self-regulation are well established predictors of health and success in adulthood.⁹ To support long-term social inclusion and cohesion the Government is seeking to strengthen social and emotional skills (SEL) in of children in the first 6 years of life.¹⁰

The early learning setting is considered a key opportunity to teach self-regulation skills. Self-control measured at age 3-5 predicts health and success in adulthood.¹¹ Many children make rapid gains in self-regulation during this time; however, progress is not universal. These gains are important as self-regulation skills are expected to support children's functioning and capacity for learning in school settings.¹² Thus teaching social and emotional skills, including self-regulation, from an early age can contribute to

⁵ Based on The World Bank's definition of social inclusion (retrieved from <https://www.worldbank.org/en/topic/social-inclusion#1>). This definition has also been used by the NZ Ministry of Social Development in their rapid evidence review on [Social inclusion in New Zealand \(May 2020\)](#).

⁶ The United Nations refer to the pandemic not just as a health crisis but also as a "human, economic and social crisis" (retrieved from <https://www.un.org/development/desa/dspd/everyone-included-covid-19.html>).

⁷ Panchal, U., Salazar de Pablo, G., Franco, M., Moreno, C., Parellada, M., Arango, C., & Fusar-Poli, P. (2021). The impact of COVID-19 lockdown on child and adolescent mental health: systematic review. *European child & adolescent psychiatry*, 1-27. <https://doi.org/10.1007/s00787-021-01856->.

⁸ Department of the Prime Minister and Cabinet. (2019). *Child and Youth Wellbeing Strategy*. <https://www.childyouthwellbeing.govt.nz/resources/child-and-youth-wellbeing-strategy#foreword-minister-for-child-poverty-reduction>

⁹ E.g. Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., ... & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the national Academy of Sciences*, 108(7), 2693-2698. <https://doi.org/10.1073/pnas.1010076108>.

¹⁰ Department of the Prime Minister and Cabinet. (2020). *Continuing Action to Improve Social Inclusion (CAB-20-SUB-0513 refers)*. <https://dpmc.govt.nz/sites/default/files/2020-12/CAB-20-SUB-0513-continuing-action-to-improve-social-inclusion.pdf>.

¹¹ E.g. Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., ... & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the national Academy of Sciences*, 108(7), 2693-2698. <https://doi.org/10.1073/pnas.1010076108>.

¹² Montroy, J. J., Bowles, R. P., Skibbe, L. E., McClelland, M. M., & Morrison, F. J. (2016). The development of self-regulation across early childhood. *Developmental Psychology*, 52(11), 1744-1762. <https://doi.org/10.1037/dev0000159>.

increased engagement in learning and positive relationships in both the short and long term.

In response, the New Zealand Government is investing in initiatives to improve social inclusion in New Zealand, including a trial to support young children in ELS to develop capacities for self-regulation, resilience and social skills.^{13 1415} Te Tāhuhu o te Mātauranga, The Ministry of Education (hereafter the Ministry) is piloting the ENGAGE program® as one of three programmes aimed at strengthening social and emotional learning (SEL) in early learning settings.^{16 17}

The ENGAGE (Enhancing Neurobehavioral Gains with the Aid of Games and Exercise) programme

The ENGAGE programme was developed by Associate Professor Dione Healey from the University of Otago. ENGAGE is a structured, play-based intervention and aims to improve the ability to self-regulate among young children using common childhood games.¹⁸ The ENGAGE games focus on improving four key areas of poor self-regulation: hyperactivity, aggression, attention problems and executive functioning (working memory, self-control, flexible thinking). Games used within ENGAGE include ball games, musical statues, Simon says, deep breathing – and focus on attentional control, behavioural control, inhibitory control and emotional control.¹⁹ The programme emphasises the intentional selection of games to develop specific self-regulation skills and the use of deliberate language to draw children's attention to the skills being practiced in these games. The programme was originally developed for parents but has since been adapted, with the help of Methodist Mission Southern (MMS), for use in early learning environments.

The ENGAGE programme has previously been researched in both parent and ELS settings. The parent version of the programme was associated with reductions in hyperactivity, attention and aggression at similar levels to children whose parents attended the Triple P parenting programme.²⁰ Previous delivery of ENGAGE in schools demonstrated significant improvements in emotion symptoms, conduct problems, hyperactivity, peer problems and prosociality, as measured by the Strengths and Difficulties Questionnaire, and aggression and hyperactivity as measured by the Behavior Assessment for Children.²¹ Further, according to the Education Review Office,

¹³ Department of the Prime Minister and Cabinet. (2020). *Continuing Action to Improve Social Inclusion (CAB-20-SUB-0513 refers)*. <https://dpmc.govt.nz/sites/default/files/2020-12/CAB-20-SUB-0513-continuing-action-to-improve-social-inclusion.pdf>.

¹⁴ MoE: Briefing to the Minister.

¹⁵ Project Plan of Ministry of Education: Social and emotional learning in the early years: Adapting the Alert program® for all tamariki.

¹⁶ Ministry of Education briefing note: Strengthening social and emotional learning in early years settings to support social cohesion, 22 April 2021.

¹⁷ A description and process evaluation of the other two programmes, Alert and Incredible Beginnings, are outlined in separate evaluation reports.

¹⁸ Healey, D., & Healey, M. (2019). Randomized controlled trial comparing the effectiveness of structured-play (ENGAGE) and behavior management (TRIPLE P) in reducing problem behaviors in preschoolers. *Scientific reports*, 9(1), 1-9. <https://doi.org/10.1038/s41598-019-40234-0>

¹⁹ *ibid*

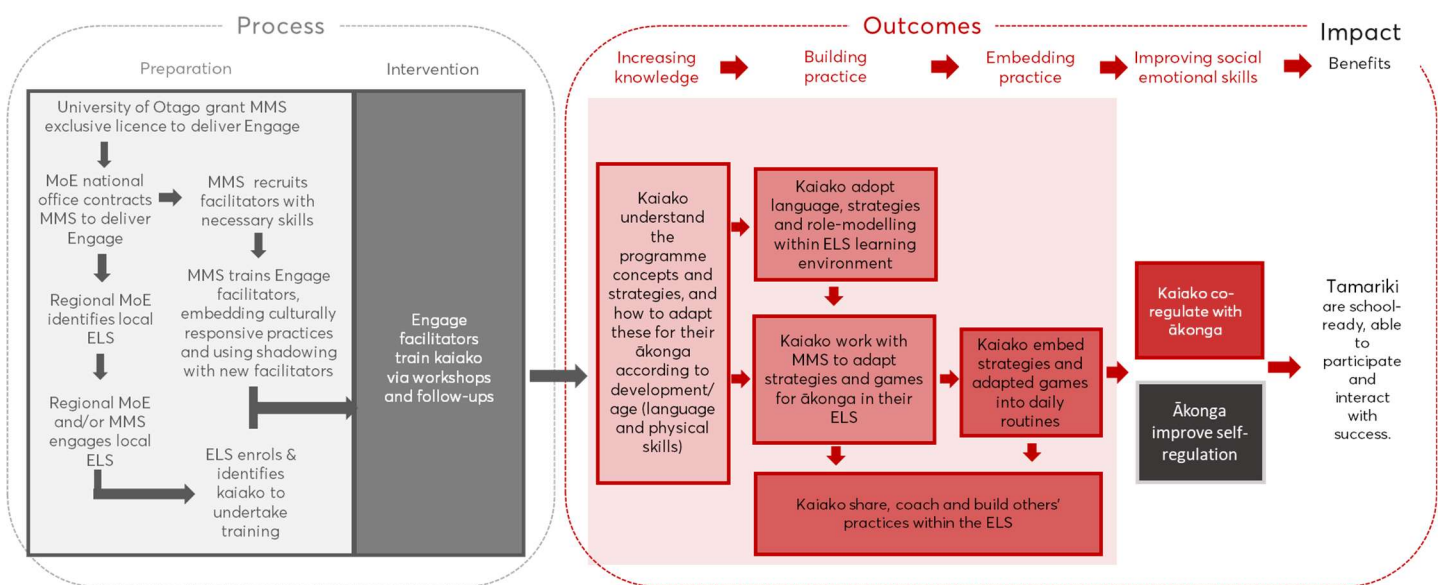
²⁰ Healey, D., & Healey, M. (2019). Randomized controlled trial comparing the effectiveness of structured-play (ENGAGE) and behavior management (TRIPLE P) in reducing problem behaviors in preschoolers. *Scientific reports*, 9(1), 1-9. <https://doi.org/10.1038/s41598-019-40234-0>

²¹ Personal communication (and statistics viewed). Dione Healey 17 March 2022.

tamariki showed progress after engaging in the structured play.²² MMS further reported statistically significant improvements in children's self-regulation skills.²³ The developer is planning a randomised controlled trial of ENGAGE in ELS for 2023 and 2024.

In funding the programme, the Ministry expects to achieve these longer-term benefits over time after delivering a range of activities and achieving a sequence of outcomes. Core activities include the recruitment and training of facilitators, and the recruitment of ELS to the programme. Facilitators then deliver training to kaiako via workshops and follow-up sessions. These expected outcomes from the training are set out below.

Figure 1: ENGAGE programme theory of action



This pilot involved the trial of ENGAGE in 70 ELS in Auckland, 30 in the Bay of Plenty/Wairariki and 30 in Otago/Southland.²⁴ An extension expanded the pilot to a further 20 services in Auckland.

In 2021 the programme was licenced by the University of Otago and work is underway to document its delivery in a formal manual. MMS is the main provider of ENGAGE training for ELS settings in New Zealand and has developed a sublicense for one community provider to deliver the programme during the pilot.

Alongside this pilot, MMS and the University of Otago are engaged in trialling ENGAGE in a range of other settings including playgroups for former refugees and migrants, in a small number of kōhanga reo and kura kaupapa and for whānau groups.

The evaluation was commissioned to help the Ministry of Education understand how the programme is implemented, and how these services are relevant and efficacious

²² Ministry of Education Briefing Note Strengthening social and emotional learning in early years settings to support social cohesion, 22 April 2021.

²³ Methodist Mission Southern. (2020). 2020 Annual Report. https://mmsouth.org.nz/assets/Uploads/Resources/Annual-Report_2020_frontpage_artwork-merged.pdf

²⁴ The regional labels here relate to the Ministry of Education regional boundaries.

for the early learning sector. The evaluation evidence will be used by the Ministry to inform policy advice to the Government. It will also be used to make informed decisions about any future delivery of initiatives and programmes in ELS that are designed to strengthen children's social and emotional learning and development of self-regulation.

The ENGAGE programme has been designed for the New Zealand context. Nevertheless, the delivery and contexts differ across ELS and will ultimately affect the success of the programme. The evaluation will focus primarily on understanding implementation and the key contextual factors and delivery mechanisms that support kaiako capability. Key evaluation questions (KEQs) that the evaluation sets out to answer are listed below.



Key evaluation questions (KEQs)

1. How, and how well, has the ENGAGE programme design, training and delivery been integrated into and/or tailored for the local ELS environments?
2. To what extent has the ENGAGE programme and context influenced kaiako knowledge and practices in the area of social and emotional competency?
3. What would be required to scale up the programme?
4. Which assessments and measurement approaches are appropriate and feasible for an impact evaluation, building upon the Ministry's continuous improvement approach and utilising existing information collecting practices by kaiako in early learning?

CONTEXT



Putting things in perspective

Early learning settings in New Zealand are diverse.

New Zealand's early learning settings me ngā kōhanga reo are diverse and include education and care services, such as crèches, preschools and childcare centres, and include services with different philosophies – Montessori and Steiner, kindergartens, playcentres, home-based ELS, hospital-based services and playgroups. Early learning services can be run by community or private providers.²⁵ The table below highlights the diversity of ELS, showing the numbers of different licenced early learning services (n=5,401), teaching staff (n=30,476) and enrolments in 2020 (n=20,287). ELS, regardless of ownership, must be inclusive and meet the same standards set out in the regulations of the Ministry of Education and the Education Review Office.²⁶

Table 1: 2020 statistics about early childhood education in New Zealand ²⁷

	Licenced services	Teaching staff	Enrolments
Education & care	2,701	25,500	130,908
Kindergarten	661	4,121	27,483
Casual education & care	7	19	
Correspondence school	1	8	333
Home-based	424	757	15,022
Hospital-based	20	71	
Kōhanga reo	444		8,334
Playcentre	404		8,268
Playgroup	739		12,528
Licence-exempt kōhanga reo	0		0
Licence-exempt playcentres	19		271
Ngā Puna Kōhungahunga	30		243
Pacific Island early learning groups	20		156
Playgroups – general	670		11,858
Grand total	5,401	30,476	202,876

²⁵ Education Counts. (2021). ECE Services and Staffing. <https://www.educationcounts.govt.nz/statistics>

²⁶ He taonga te tamaiti Every child a taonga Early learning action plan 2019-2029 (2019), He taonga te tamaiti | Every child a taonga (conversation-space.s3-ap-southeast-2.amazonaws.com)

²⁷ Education Counts. (2021). ECE Staffing. <https://www.educationcounts.govt.nz/statistics>;

Education Counts. (2021). ECE Services. <https://www.educationcounts.govt.nz/statistics/services>

There is a need for ELS professional development opportunities on social and emotional learning.

The tamariki within these ELS are diverse and we know there are significant needs among this population. For example, using the Strengths and Difficulties Questionnaire (SDQ), which is a psychological adjustment screening questionnaire, the Ministry of Health reported²⁸ that about 8% of tamariki aged 3 to 14 years old experience significant self-regulation difficulties (an estimated 57,000 tamariki). The prevalence and nature of difficulties differs across subgroups,²⁹ and relevant to ELS the rates of concerning total difficulties were higher for those aged 3 to 4 years – amounting to 10.2% of this population.

Although these needs exist, there are no sustained, centralised services of professional learning and development (PLD) in social and emotional learning available for kaiako, and PLD in ELS is provided on a sporadic and ad-hoc basis.³⁰

Guidance around social and emotional learning is provided within Te Whāriki, the New Zealand Early Learning Education curriculum, and He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning. Te Whāriki aims to develop the mind, body and spirituality of tamariki within holistic perspectives and promote emotional competence. This includes supporting tamariki to understand, express and regulate their emotions; helping tamariki build resilience and a sense of self-worth; and providing positive guidance during heightened emotions.^{31 32} He Māpuna te Tamaiti focuses explicitly on guidance for developing social and emotional competence within ELS. The resource includes practical guidance and a self-assessment tool.

²⁸ McKernan, S. (2018). Social, Emotional and Behavioural Difficulties in New Zealand Children: Technical Report. Wellington: Ministry of Health. <https://www.health.govt.nz/system/files/documents/publications/social-emotional-behavioural-difficulties-nz-children-technical-report-may18.docx>.

²⁹ When comparing select groups across the age groups, Māori tamariki were 1.79 times more likely than non-Māori tamariki to have a concerning difficulties score; and those living in areas of high socioeconomic deprivation areas were three times more likely to have concerning scores.

³⁰ Ministry of Education Briefing Note Strengthening social and emotional learning in early years settings to support social cohesion, 22 April 2021.

³¹ Ministry of Education. (2019). He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning. Cognition Education for the New Zealand Ministry of Education. <https://tewhariki.s3.ap-southeast-2.amazonaws.com/public/Teaching-strategies-and-resources/Files/He-Mapuna-te-Tamaiti-book.pdf>.

³² Ministry of Education. (2017). Te Whāriki He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum. Wellington, Ministry of Education. <https://assets.education.govt.nz/public/Documents/Early-Childhood/Te-Whariki-Early-Childhood-Curriculum-ENG-Web.pdf>.

The pilot was delivered during a time of significant disruption for ELS.

The timing of the delivery of this pilot should be considered alongside other contextual factors that will influence the implementation and/or success of the programme. Of particular significance was the impact of the COVID-19 pandemic on ELS services, and the recruitment, training, and delivery of the pilot, as well as the evaluation.

From mid-August 2021 to November/December 2021, Auckland ELS were impacted by the Delta outbreak and associated restrictions. During much of this time Auckland ELS operated on minimal staffing and provided care to children of essential workers only. Other parts of the country were also impacted for shorter periods, and travel between Auckland and other regions was disrupted.

From early 2022 Omicron generated high rates of COVID-19 infection across the country. Illness and home-isolation led to high staff absences, and a limited pool of reliever staff. ELS kaiako and managers also reported high levels of stress related to managing sickness, staff shortages and policies and procedures associated with COVID-19 during this time. Options for face-to-face interactions between ELS and families were also disrupted.

These events likely impacted the delivery of the pilot in several ways.

- Face-to-face delivery needed to be promptly shifted to online-based delivery in August 2021, and online based delivery was necessary for parts of 2022 due to no-visitor policies arising from COVID-19 outbreaks.
- Many ELS were short of staff and had limited capacity to dedicate to training.
- The intended process for training facilitators was unable to be actioned. New facilitators were unable to travel to Auckland to shadow face-to-face delivery as part of their training.
- The existing ENGAGE facilitators were Auckland-based and thus were unable to travel to support delivery or face to face training in new regions during 2021.

EVIDENCE QUALITY OVERVIEW



Method summary

The ENGAGE programme has been designed for the New Zealand context. Nevertheless, the delivery and contexts differ across ELS, and will ultimately affect the success of the programme. The evaluation focuses on implementation and the key contextual factors and delivery mechanisms that support kaiako capability.

This process evaluation was commissioned to help the Ministry of Education understand how the programme is implemented, and how these services are relevant and efficacious for the early learning sector. The evaluation evidence will be used by the Ministry to inform policy advice to the Government. It will also be used to make informed decisions about any future delivery of initiatives and programmes in ELS that are designed to strengthen the social and emotional learning of tamariki and the development of self-regulation.

This process evaluation used a mix of qualitative and quantitative methods to answer the evaluation questions. We engaged with individuals across all roles involved in the design and implementation of ENGAGE. We used different methods with the individuals, allowing the evaluation team to test theories and triangulate evidence. The process included:

- **Twenty-one key stakeholder interviews** . These were held with Ministry regional staff (3), MMS and its facilitators (11 individuals across six interviews/group interviews), Dione Healey (1) and individual interviews with kaiako from 11 services who had participated in the programme. Interviews were conducted between February and June 2022.
- **A survey of ELS** asked questions about their experience with the programme, and knowledge and practices related to ENGAGE (n=81 respondents). One kaiako in each centre completed this on behalf of their centre. This survey was conducted in early to mid-June. Further details on the survey method are provided in Appendix A.
- **A document review** of workshop resources, programme delivery record and future resourcing estimates.
- **A sense-making session** with Ministry stakeholders, including Ministry and MMS staff, providing an opportunity to share and test the validity of the emerging findings and inform the next steps.

To answer each KEQ, data was triangulated to test and validate the judgements. Further information on the evaluation criteria and methods used for this evaluation are included in Appendix A.

Evidence quality

This process evaluation of the ENGAGE pilot seeks to inform future implementation and potential future scaling of the ENGAGE programme. The evaluation may have broad implications for the provision of self-regulation programmes in ELS over the coming decades.

For this context, the evaluation collated evidence to the following standards:

- **Sufficiency:** The data explored context and meaning across the pilot; although the data did not achieve saturation across these multiple contexts, there was a high degree of saturation for some themes and these themes were further validated in a sense-making session. This suggests that the data were sufficient to identify factors that may influence success (or otherwise) for implementing the ENGAGE in the New Zealand ELS setting.
- **Generalisable:** there was a high response rate to both the surveys and case study interviews and given the numbers of individuals engaged in relation to the size of the pilot, the data are likely generalisable to the pilot setting. The data cannot be used, however, to generalise to all unique ELS settings in New Zealand.
- **Balanced:** the collective results provide a balanced picture of ENGAGE across the different roles, experiences and settings relevant to the pilot.

The quality of evidence used here was deemed appropriate for the agreed purpose of this evaluation, and the findings should be read in the context of the evidence quality.

FINDINGS



What we found

The following sections summarise the evidence the evaluation generated to answer the KEQs. Each KEQ and sub-question is discussed separately, and the evidence to support each finding is presented under the relevant section. The source of the evidence is also provided, making reference to Methodist Mission Southern (MMS), Ministry of Education (MoE) or kaiako (K) interviews, or surveys (S) supporting any finding and indicating the weight of evidence that sits behind that statement. The number of times each source code is shown demonstrates the frequency which this theme was noted across these sources, and as such, highlights the weight of the evidence to support each finding.³³

Judgements are based on the rubrics provided in Appendix A.

Relevance

The ENGAGE pilot was assessed in terms of its relevance to people (tamariki, kaiako, Ministry), and the New Zealand context through feedback via interviews, document review and a survey of kaiako. Discussions in the final sense-making session contextualised these findings.

ENGAGE was found to exceed expectations in terms of relevance to the curriculum (and thus the Ministry), relevance to kaiako, relevance to tamariki and meeting expectations in terms of relevance to culture, with current and future work likely necessary to further enhance relevance for Māori.

KEQ1: How, and how well, has the ENGAGE programme design, training and delivery been integrated into and/or tailored for the local ELS environments?

ENGAGE facilitators provide kaiako with information about the rationale for playing games to develop self-regulation, guidance on potential games, suggestions on how to build self-regulation through games (through a focus on language and scaffolding) and work with ELS to identify the best ways to deliver and tailor the programme to their ELS (MMS, MMS, Doc 2, Doc 3).

ELS were encouraged to aim for 30 minutes a day of play, to utilise a variety of games, and to use deliberate language with tamariki to encourage them to attend to the specific skills they were practicing in a game (e.g., waiting their turn, focusing) (Doc 1). ELS were provided with a card set that involves 36 games relating to cognitive,

³³ Some source codes, such as documents, have a number following the DOC code which designates a specific document for the evaluation team. These numbers were removed from the interview codes (MMS, MoE) in this report to protect anonymity. These are retained in the evaluation team's copy of the report as part of the team audit and accountability process.

behavioural or emotional self-regulation skills (Doc 4). These games include common children's party games, ball games, mindfulness, feelings-talk and activities such as puzzles and beading. ELS were also given pointers to help with implementation such as focusing on emotion-focused games initially. The programme included flexibility for services to deliver games in ways that were feasible for them and built on their existing work (e.g., Doc 3, MMS).

ENGAGE content is typically delivered to a single ELS at a time via two face-to-face workshops, as well as follow-up calls or visits after the first and/or second workshop (MMS, MMS). In previous pilots ENGAGE had been delivered face-to-face, but the emergence of COVID-19 and visiting restrictions necessitated a move to online delivery for periods in this pilot. Whilst many kaiako and facilitators preferred the additional engagement and in-depth discussions offered via face-to-face sessions (K1, K2, K3, K4, K8, MMS, MMS), online delivery had been useful for reaching smaller early learning services and more isolated communities, and for enabling kaiako to attend workshops out of hours from their home (MMS, MMS).

The adaption of ENGAGE from a parent programme to an ELS-focused programme involved a move to more interactive workshops, a focus on embedding within centre delivery, and the addition of the cards describing various games that could be played in the ELS (MMS). ELS delivery has been refined over time through this pilot and previous pilots (MMS).

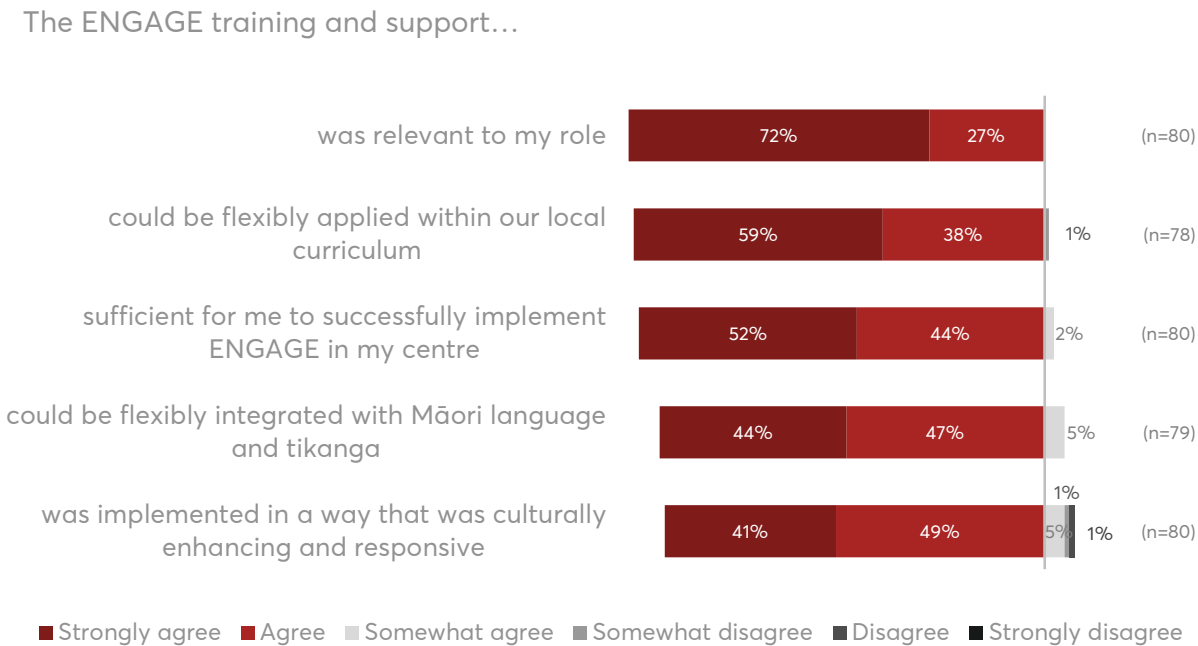
BY DELIVERING IN EARLY LEARNING SERVICES, WE THOUGHT WE'D BE ABLE TO REACH A LOT OF PEOPLE FOR WHOM LIFE AT HOME IS REALLY COMPLEX – KEY STAKEHOLDER

THE ELS WORKSHOPS WERE DEVELOPED THROUGH A LOT OF CO-DESIGNING WITH TEACHERS. WE ALSO PUT THE GAMES ON CARDS AND ALLOWED PEOPLE TO SELECT A SUBSET OF THE GAMES TO ENCOURAGE BUY-IN AND DISCUSSION – KEY STAKEHOLDER

Participating kaiako considered the programme relevant to their role, and feasible to implement with tamariki aged two and over.

Kaiako reported that ENGAGE was relevant to their role in ELS (c.f. Fig. 2). The play-based focus was described as an important instrument for education (MoE), and an approach that is well received by most tamariki (K1, K2, K3, K6). ELS valued the focus on reinforcing positive behaviours as a change from reactive practice and discouraging negative behaviours (K1, K3, K6). A good fit with ELS's existing philosophy was a key reason ELS chose to participate in the programme (K4, K5, K6, K7, K2, K3).

Figure 2: Overall kaiako perceptions of ENGAGE programme delivery/integration (n=81)



Most ENGAGE games were seen as developmentally appropriate for tamariki aged two and over, although some ELS had split tamariki into age groups to allow them to simplify the games for younger tamariki and extend these for the older tamariki (K2, K3, K6). A subset of games was noted to be too difficult or otherwise unsuitable for some groups of tamariki (K11, K2, K1, MMS). Two of the 81 survey respondents had tried the games with under-2's and found almost all were not relevant for this age group.

Whilst some services were hesitant to adopt the programme due to concerns it is not consistent with a child-led approach (K1, MMS), ENGAGE could be adapted within a centre with a particularly child-led philosophy by focusing on expanding on games tamariki already play and scaffolding these games to push tamariki out of their comfort zone (MMS). ELS who participated described integrating a child-led focus by allowing tamariki to select games to play from a set of ENGAGE cards stuck to the classroom wall (K7). In another example, a centre had purchased games that tamariki were playing at home so that tamariki could teach these games to their peers (K11). Two interviewees (K4, K11) and multiple survey respondents also described examples of tamariki self-initiating games once they had been taught how to play these.

ENGAGE was viewed as easy and practical to implement by most ELS participating, although time constraints may have prevented some services from taking part. The ENGAGE cards were important for making the programme practical.

Most services interviewed reported that the programme was easy and practical to implement (K8, K7, K5, K4, K6, K10, K11). The games cards were described as a quick go-to for kaiako to use in their planning (K4) and promoted consistency in the language

88% of ELS responding to the survey believe it is feasible for their centres to collectively deliver 30 minutes a day of ENGAGE games and activities.

used and the rules of each game among kaiako (K10), including kaiako who had been unable to attend the training (K7). Overall, the games cards and workbooks were very well received by many of the services interviewed (K1, K2, K3, K4, K7, K9, K10) as well as those responding to the survey.

I LOVE THAT IT'S NOT INFORMATION HEAVY, NOT A LOT OF READING, IT'S ABOUT GETTING INTO IT – KAIAKO

Most ELS reported that ENGAGE was feasible to deliver; 88% of ELS responding to the survey agreed or strongly agreed that it is feasible for their centres to collectively deliver 30 minutes a day of ENGAGE games and activities. Those who did not think it was feasible identified this was more about logistics of attending professional development, citing staffing shortages (2 survey respondents), finding time among other curriculum needs (1 survey respondent), maintaining the concentration of under-2s (1 survey respondent), and keeping tamariki engaged whilst meeting the needs of other tamariki (1 respondent). Barriers around staffing and sustaining the attention of tamariki were reiterated in the interview feedback, which noted that some staff struggled to manage sustained participation in games (K3, K2, K1), particularly when multiple games were being played at the same time (K1). Another centre noted that because game-playing required sustained attention, there needed to be another staff member available to deal with the needs of other tamariki in the area (K2, K9). Two survey respondents noted that whilst the specific ENGAGE games weren't feasible for them to implement for 30 minutes each day, the language and philosophy was. One kaiako noted that the *"intentionality and language can be used with many other games and activities in a play-based curriculum."*

Whilst we did not speak with services who chose not to take part, second-hand information suggests that the time needed to attend the workshops may not have been feasible for these ELS. Those who chose not to participate reportedly stated staff capacity challenges, other professional development commitments, fatigued staff, or policies limiting visits to ELS as reasons for not taking part (MMS, MMS, MMS, Doc 19).

Some kaiako described a preference for the practical focus of ENGAGE compared to other information-heavy self-regulation programmes (K11, K2). However, one centre felt that the sessions could have been shortened given their high levels of existing knowledge around self-regulation or expanded to provide more detailed information about self-regulation *"what we learnt in the 2-hour zoom could have been done in 15 minutes because of where my teams at"* (Kaiako).

ELS selected games that addressed gaps in their current practice, and many adapted some games for their local context.

MMS described the delivery in ELS as a co-design approach in which facilitators support ELS to decide which games to play, and how to embed these within their ELS (MMS, MMS, MMS). The games cards also provided an element of choice for kaiako, which the programme developers believe is important for buy-in to the programme (MMS).

Kaiako valued the flexibility to be able to implement the parts they feel are most beneficial to their ELS, or adapt the games to their setting (K2, K6). For example, one centre mostly uses the cognitive and behavioural games cards, because they already did a lot of emotional support (K2). In fact, ELS described the flexibility to enable them to fit ENGAGE to their context as a core strength of the programme (K10, K11, K2). Most ELS responding to the survey described the programme as training that could be flexibly applied within their local curriculum (c.f. Fig.2).

Some of the adaptations ELS made to the programme included adapting a card matching game by developing cards featuring photos of the children's faces (K2), adapting the suggested breathing exercise focused on candles or rainbows to a "spiderman" breathing exercise that aligned better with the interests of their (largely male) cohort of tamariki (K1), utilising physical props in mindfulness games (e.g. smelling actual fruit, blowing out actual candles) (K7), and incorporating language about the zones of regulation from another programme on self-regulation they were already running (K9). These adaptations suggest that ELS are invested in the programme, thinking critically about how it aligns with their centre practices and embedding it within their ELS. Facilitators also had some freedom to adapt their delivery during the pilot, enabling them to adapt these to each ELS (MMS). However, this potentially enables a large variation in the type and quality of delivery.

EVERY CENTRE IS DIFFERENT AND WE DON'T USE A ONE SIZE FITS ALL — KEY STAKEHOLDER

ENGAGE supports many of the goals outlined in He Māpuna te Tamaiti and Te Whāriki and incorporates many of the specific strategies outlined in He Māpuna te Tamaiti.

He Māpuna te Tamaiti,³⁴ includes a broad set of approaches for supporting social and emotional competence. ENGAGE games include many of the strategies described in He Māpuna, including providing deliberate opportunities to discuss feelings (this aligns with He Māpuna, p.38), to practise social skills (aligns with p.65), to develop cognitive self-regulation, such as persistence to manage their learning (p.72), and to learn and practise calming rituals, e.g., breathing exercises (p.39). ENGAGE also encourages kaiako to play games in ways that use many of the intentional teaching practices included in He Māpuna³⁵ (e.g., encouraging, describing, providing vocabulary, fading support, scaffolding, reminding).

³⁴ Ministry of Education. (2019). He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning. Cognition Education for the New Zealand Ministry of Education. <https://tewhariki.s3.ap-southeast-2.amazonaws.com/public/Teaching-strategies-and-resources/Files/He-Mapuna-te-Tamaiti-book.pdf>

³⁵ Ministry of Education. (2019). He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning. Cognition Education for the New Zealand Ministry of Education. <https://tewhariki.s3.ap-southeast-2.amazonaws.com/public/Teaching-strategies-and-resources/Files/He-Mapuna-te-Tamaiti-book.pdf>

ENGAGE should also help services to achieve emotional, social and physical goals outlined in Te Whāriki.³⁶ This includes goals around nurturing emotional wellbeing (this aligns with Te Whāriki p.24), using gesture and movement to express themselves³⁷ (p.47), learning strategies for active exploration, thinking and reasoning (p.49), valuing play as meaningful learning and recognising spontaneous play (p.47) and gaining confidence in and control of their bodies (p.47) and learning outcomes around social problem-solving (p.39). Games are explicitly described as a useful tool for developing some of these skills within Te Whāriki (e.g. p.33, p.39, p.43).

Kaiako viewed ENGAGE as well-aligned with He Māpuna (K1, K2, K4, K8, K11), although a number were unable to comment as they had not used He Māpuna yet (K5, K6, K7). Two ELS noted that the links to Te Whāriki and He Māpuna could be made more explicit or be discussed in more depth within the training (K2, K10).

The programme was generally viewed to be culturally responsive and able to be adapted for different cultures. Delivery in Pacific ELS was an existing strength of the Auckland delivery, and te ao Māori capacity was strengthened through this pilot. There is a range of other work underway to further strengthen the cultural relevance of this programme for different audiences.

Ninety percent of ELS responding to the survey agreed (or strongly agreed) that the workshops were delivered in a way that was both culturally responsive and able to be adapted into their use of te reo and tikanga Māori (c.f. Fig.2). ENGAGE workshops include karakia, time for mihi mihi, and draw on the concept of whakataukī (cultural metaphors) to weave Māori and Pacific values into the ENGAGE programme (MMS). Utilising an icebreaker that asks people what games they played as tamariki also provides an option for people to draw on games from their own culture (MMS).

Programme delivery in Auckland also has a strong Pacific focus, supported by a Tongan facilitator who offers bilingual delivery in Tongan ELS, and a previous pilot in eight Pacific ELS. Within delivery of Pacific ELS, the icebreaker is adapted (MMS), and additional time is taken for building connections (MMS).

Some ELS interviewed described how they had adapted the games to their local culture. For example, by utilising music relevant to the culture of tamariki within the games (K3), using te reo in the games (K7), swapping the provided guided meditation for a te reo Māori guided meditation they got from another centre (K1), and utilising a Tuvaluan "copy-me" song taught to them by a family member (K1).

Some kaiako felt that including te reo Māori and/or other languages in the games cards would help to improve the relevance of the programme for their centre further (K2, K4, K7, K9), and stakeholders noted language-specific cards or resources may help to encourage whānau from multicultural communities to utilise the resources (MMS, MMS, K4).

³⁶ Ministry of Education. (2017). Te Whāriki He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum. Wellington, Ministry of Education. <https://assets.education.govt.nz/public/Documents/Early-Childhood/Te-Whariki-Early-Childhood-Curriculum-ENG-Web.pdf>

³⁷ Ibid

MMS were keen to further build kaupapa Māori facilitator expertise and bicultural practice within programme delivery (MMS). For example, one facilitator noted that "*te ao Māori*] is something I want to do I just don't have the confidence or skill to do that, but it's the next step of the programme... There's a real need and niche". Ministry staff noted that Māori learners and immersion sessions were a key strategic priority that had not directly been directly addressed by this pilot.

MMS has several pieces of work underway to strengthen the bi-cultural and cultural lens of the programme. During the pilot MMS employed two facilitators with specific expertise in te ao Māori to deliver workshops and support te ao Māori capacity building across the entire team (MMS). These facilitators led an online hui '*Viewing ENGAGE through the lens of a tamaiti Māori and their whānau*' for kaiako who have been involved in the pilot. Those who attended the hui reported positively on the experience (K7, K9).

A collaboration with Eastbay REAP education providers was an important opportunity for bringing Māori expertise into the programme (MMS, MMS, MMS). Eastbay REAP is an education and social development organisation based in the eastern Bay of Plenty/Waiariki. Their facilitators are skilled in te ao Māori, with expertise in adapting programs to make them relevant in their communities (MMS). During the pilot this organisation was sub-contracted to deliver sessions to early learning settings in their local region.

Outside of the pilot MMS is partnering with others to enhance te ao Māori focus of ENGAGE, including working with a kura and kōhanga reo in the Wairarapa (MMS). This and the work with Eastbay REAP is expected to generate ideas for incorporating te ao Māori into wider delivery of the programme.

Effectiveness

Effectiveness was considered in terms of kaiako knowledge and practices around building self-regulation through intentional games, including the use of language to promote generalisability of the self-regulation skills being practiced.

A survey of ELS and interviews with kaiako were used to assess self-reported knowledge and the frequency of playing games using ENGAGE skills following participation in the programme. The two sets of data are triangulated to provide a picture of the impact of the programme on kaiako practices.

This pilot exceeded expectations for effectiveness. It consistently achieved the desired goals in terms of changing the way that games were played to include an intentional focus, and deliberate use of language to promote the generalisability of skills being practised in the games to other settings. The programme was associated with an increased amount of time spent playing games for around half the ELS, in part as many ELS were already delivering some kind of games or activities (e.g., puzzles) albeit often without an intentional focus or deliberate use of language.

KEQ2: To what extent has the ENGAGE programme and context influenced kaiako knowledge and practices in social and emotional competency?

The training workshops and follow-ups were very good at ensuring kaiako had the knowledge needed to deliver ENGAGE, although confidence delivering the games could be improved in some ELS.

Almost all survey respondents reported they had a very good understanding of the core skills and strategies of the ENGAGE programme (c.f. Fig. 3).³⁸

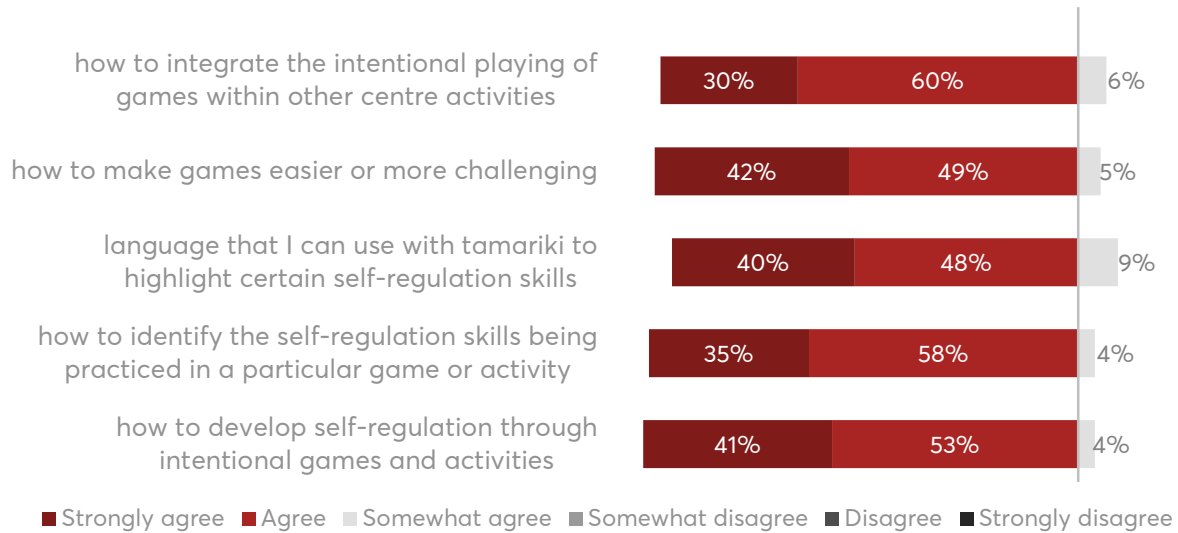
Interviewed kaiako also described a range of learning in relation to self-regulation more generally. Some kaiako had heard some of the concepts previously, so the specific take-aways depending on their existing knowledge. For some, ENGAGE training taught them about the connection between emotions and self-regulation (K5), learning about intentional game playing and incorporating intentional language in games (K6, K7, K9) and developing a greater awareness of the needs and behaviour of tamariki (K6, K4). For others it emphasised the importance of self-regulation and critical thinking (K3, K6), causes of behaviour (K6), the role of temperament in behaviour (K9) and the importance of a no one-size-fits-all approach (K2) or emotional expressions (K4).

³⁸ These numbers may slightly overestimate the knowledge among all staff, as this questionnaire was typically completed with the person most engaged in the programme

BEING MORE AWARE OF CHILDREN'S SELF-REGULATION SKILLS AND UNDERSTANDING OF WHY CHILDREN'S BEHAVIOURS ARE HAPPENING – KAIAKO

Figure 3: Overall kaiako perceptions of knowledge related to ENGAGE (n=79)

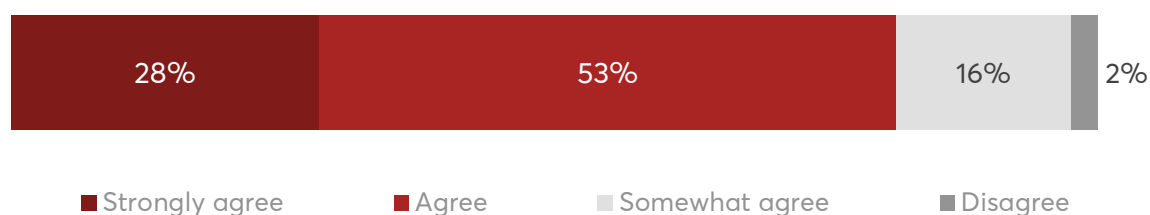
Following the ENGAGE training and support I have a very good understanding of...



Most survey respondents agreed or strongly agreed that kaiako at their centre are very confident initiating ENGAGE games and activities in their daily interactions, with around a quarter of ELS strongly agreeing with this statement. Only 18% somewhat agreed or disagreed (c.f. Fig. 6). This was consistent with the interviews, in which some ELS noted that confidence was mixed among their staff, with more confident staff taking a lead role in game playing in their centre (e.g., K1, K10).

Figure 4: Kaiako perceptions of confidence among staff at their centre (n=81)

Teaching Kaiako at my centre are very confident initiating ENGAGE games and activities in their daily interactions with tamariki (n=81)



Most services were already playing some games or activities similar to those on the ENGAGE cards prior to participating in the pilot. Around half of ELS reported increasing the amount of time spent playing ENGAGE games, or similar games.

Around half of services (53%) reported some increase in the amount of time spent playing games following participation in ENGAGE. The median increase in minutes spent in games or ENGAGE-like activities per day was 10 minutes. Figure 5 displays the average minutes a day spent playing games like ENGAGE before and after participation in the programme for those ELS who responded to this question.

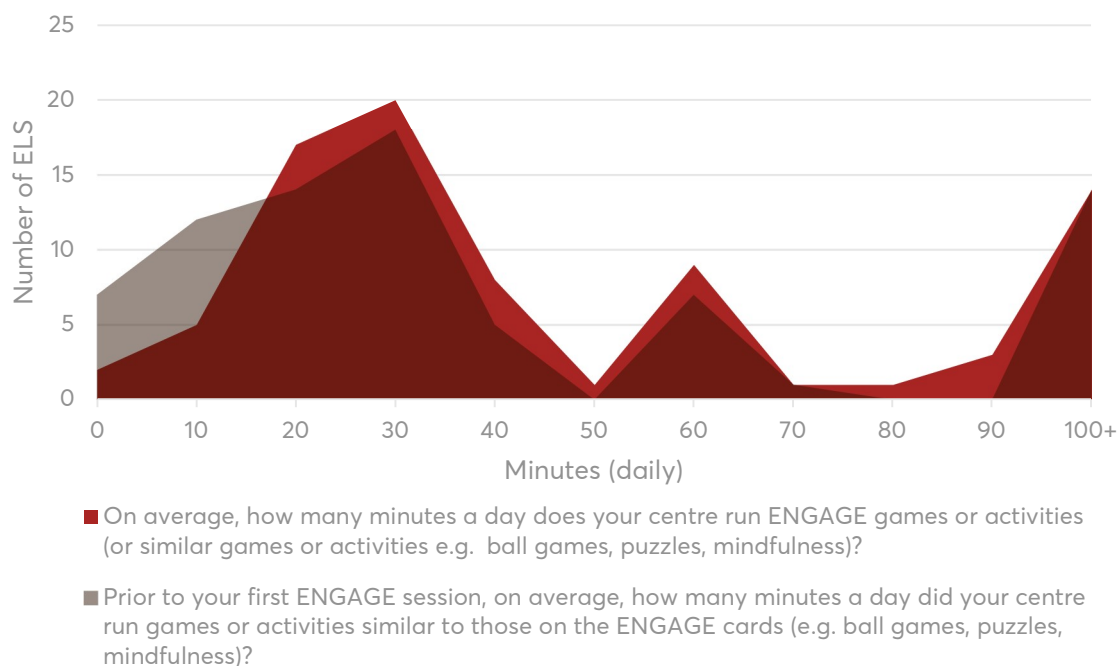
Some games or activities similar to those on the ENGAGE cards were already happening in most of the ELS participating in this pilot prior to ENGAGE. Most (90%) were playing games similar to ENGAGE games³⁹ for at least 10 minutes a day prior to participating, and over half (57%) reported playing games or activities for at least 30 minutes a day prior to ENGAGE. Fourteen services identified that they were playing games for at least 100 minutes a day prior to ENGAGE, suggesting that game playing was already well embedded within some ELS.

The finding that around half of the ELS increased the total time playing games is broadly consistent with the interview data. Some interviewed ELS reported increasing the amount of time spent playing games (K1, K2, K6, K7 and others did not, but rather increased the variety of games they played (K3, K5, K6, K7, K9, K10, K11).

Note that many services said it was difficult to estimate precise minutes, so these values should be interpreted with some caution.

³⁹ We asked ELS to specify the number of minutes the "centre ran games or activities similar to those on the ENGAGE cards (e.g. ball games, puzzles and mindfulness)."

Figure 5: Reported minutes a day in ENGAGE-like games and activities (n=81)



Interviews and open-ended feedback suggest many ELS increased the number and variety of games, introduced an intentional approach and/or introduced specific language into the games.

Interview information and open-ended survey feedback helps to provide a picture of the extent to which these behaviours arose due to ENGAGE delivery.

Some ELS interviewed increased the variety of games (K3, K5, K6, K7, K9, K10, K11), for example, by increasing the number of social games and outdoor games (K3) or incorporating more memory games (K11). ELS interviewed also described introducing a more intentional choice of games to play with tamariki (K4, K5, K6, K8, K9, K11), and in turn some made changes to the type of games played (K4). In one centre this included the initiation of an individual assessment of self-regulation of tamariki in the ELS to inform this (K5). Another centre planned to initiate assessment-driven selection of games but had not yet completed the workshops and implemented this (K10). Many open-ended survey responses also referred to changes in the language used and intentionality of game playing. A summary of the changes each interviewed centre attributed to ENGAGE are outlined in Table 2.

Table 2: List of factors interviewed ELS identified had changed following participation in ENGAGE

Change described	ELS interviewed										
	1	2	3	4	5	6	7	8	9	10	11
We now use more games in the centre, or a wider variety of games	x	x	x	x	x	x	x	x	x	x	x
We gained knowledge about self-regulation		x		x	x	x	x	x	x	x	
We use a more intentional/targeted approach to playing games	x				x	x	x		x	x	x
We changed our language (use consistent language to remind tamariki about skills and/or increased emotion words)		x	x				x	x		x	
This has given us new positive strategies to support tamariki	x	x					x	x	x	x	
Other					x		x	x			

Interviewees also identified other benefits of participating in ENGAGE such as having breathing strategies that they used in other situations to support tamariki to calm down (K1, K8, K9, K11) and spending more time discussing self-control with tamariki (K8). Other ELS interviewed also identified that one of the core changes generated by the programme is that kaiako now pay attention throughout the game or activity (K3, K4, K9, K11). For example, previously arts and crafts were left to tamariki to self-direct (K3).

WE'RE NAMING FEELINGS MORE; I THINK IT'S BECAUSE WE NAME MORE FEELINGS IN THE GAMES. ITS NATURALLY EVOLVED, FOR EXAMPLE USING WORDS YOU WOULDN'T NORMALLY USE WITH TAMARIKI SUCH AS "LONELY" AND "FRUSTRATED" – KAIKO

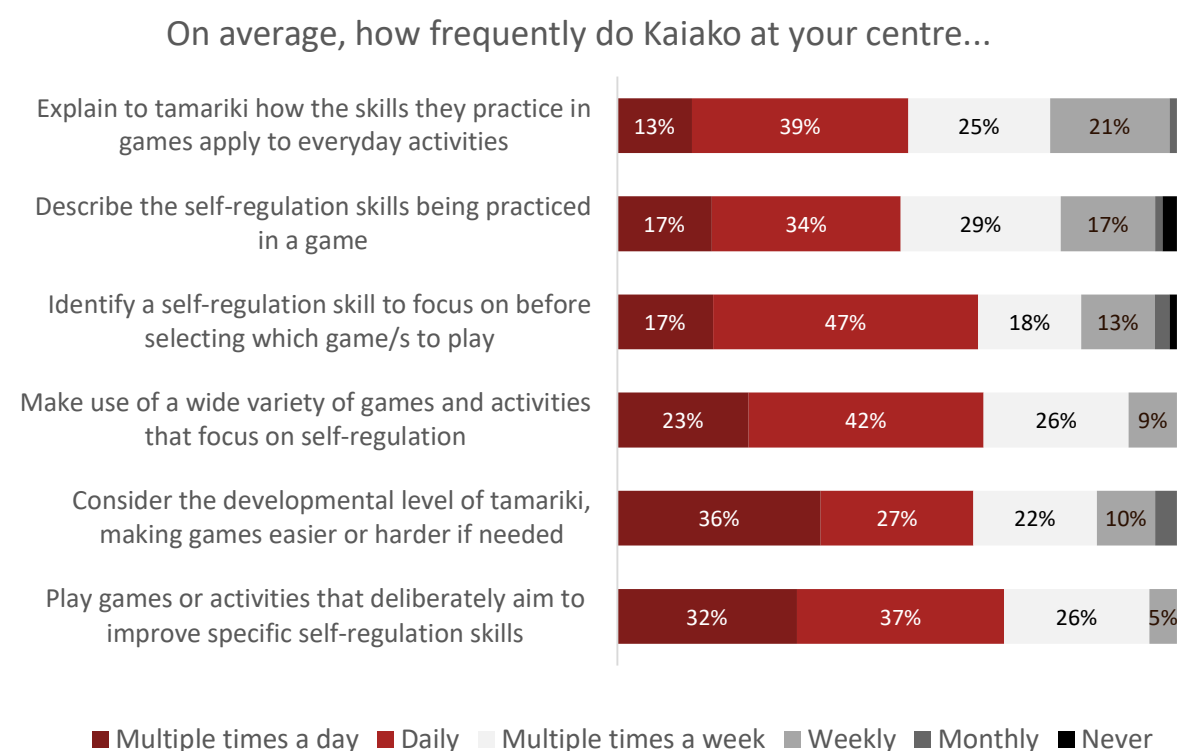
[TAMARIKI] ALWAYS HAD ACCESS TO ARTS AND CRAFT, BUT THE ENGAGEMENT IS DIFFERENT... TEACHERS NOW PAY ATTENTION THROUGHOUT – KAIKO

Following the workshops, more than half of ELS incorporated specific language into their games, intentionally selected games and played a wide variety of games at least daily.

Intentional game playing is a core aim of the programme. 69% of services identified that they play games or activities that deliberately aim to improve self-regulation skills daily, and 95% identified doing this multiple times a week (c.f. Fig. 6). Around half the ELS reported that they identify self-regulation skills to focus on before selecting games to play daily, and 66% identified doing this weekly. Most ELS also reported that they

incorporated specific language into their games, intentionally selected games and played a wider variety of games at least multiple times a week.

Figure 6: Perceptions of the frequency of ENGAGE-related behaviours in ELS

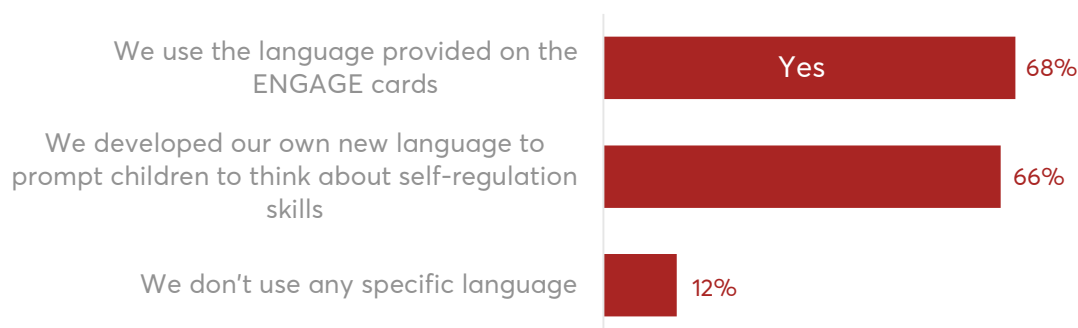


Language appears to be less likely to be reported daily than some of the other ENGAGE strategies. It is possible that many ELS are using language daily, but not to the extent of describing or explaining how these relate to everyday activities daily (as asked in the survey questions). Interviews also presented a picture of language being adopted in some ELS (K2, K3, K7, K8, K10) but not others.

The ENGAGE games cards feature specific prompts to use when playing the games to get tamariki to think about the skills being used. These include prompts such as "You need to try hard to move at the right speed, even when you want to move differently", "This helps our brains and our bodies work together better", "Watch the cards very carefully for a match!", "Big slow breathing can help us to feel calm and relaxed" (Doc 4). ELS were also encouraged to come up with their own language to use. As shown in Figure 7, around two thirds of ELS were using the language provided on the ENGAGE cards and a similar percentage had identified their own language.

Figure 7: Reported language use while playing games (n=82)

Which term best describes the language used when playing games or running ENGAGE activities with tamariki in your centre: (n=82)



The interviews identified that a small number of ELS may not be playing the games in the way originally intended. For example, in one centre games are played once a day with a small selection of tamariki, and only two games are offered each term (K1). In another case, a kaiako described setting out the resources for tamariki and letting them do what they want with them, rather than remaining present and supporting the game (K2). This ELS indicated that they did not have time to remain present for the games. Facilitators may identify when ELS are not playing the games as intended if they do a follow-up visit. During the pilot there was not a formal process for assessing the quality of delivery within ELS, or a checklist for ELS to assess their own delivery (MMS). Processes and checklists have now been developed and are being piloted by the facilitator team. The intention is to use these within all ENGAGE delivery from the start of 2023.

Where ELS are not delivering the programme as intended or to the levels delivered in the previous research, it is unclear if we could expect the same benefits on the self-regulation skills of tamariki as shown in this research.

In ELS with more pre-existing game playing, a higher proportion of qualified staff were more likely to be implementing ENGAGE-related behaviours.

We sought to examine whether variation in how ENGAGE was delivered, or ELS characteristics were associated with how well services reported they were implementing ENGAGE. We examined predictors of ENGAGE-related behaviours⁴⁰ through correlations, and then a regression analysis (see Appendix B for full details).

More frequent use of ENGAGE-related behaviours (e.g. language, intentionality) was associated with how many minutes an ELS spent playing games before participating in the programme ($\beta = 0.19$, $p = 0.01$). This is consistent with facilitator feedback that it is easier to embed intentionality and language into game playing when ELS already have a play-based philosophy (MMS, K5). Those centres not already playing games needed to

⁴⁰ This was calculated as the average of the responses to questions presented in Fig. 8.

introduce games as well as incorporate language and intentionality to achieve high ENGAGE-related behaviour scores.

More frequent ENGAGE-related behaviours were also associated with higher proportions of qualified kaiako within an ELS ($r = 0.27$, $p = 0.02$).⁴¹ Thus limited existing game-playing and lower proportions of qualified staff may be indicators of which services may benefit most from additional follow-up support.

ELS who attended single-centre workshops were also more likely to be implementing ENGAGE-related behaviours.

We also found that those services who attended workshops solely with their centre staff were, on average, more frequently implementing ENGAGE-related behaviours ($r = .36$, $p = .002$ and $\beta = 0.57$, $p = 0.01$). It is unclear if this is because workshops delivered to a single centre provide better learning experiences or whether the types of services who requested multicentre workshops differ from other services, for example in terms of existing staff skill sets. It is also possible that a third factor such as COVID-disruptions contributed to these differences.

Interview feedback suggests that in some multi-centre workshops, only a selection of staff were invited to attend the first session, resulting in lower levels of buy-in or understanding among those staff who only attended the second session (K3, K5). In some multicentre workshops all staff attended both workshops. MMS has indicated that these multicentre workshops were in part a response to limited staff availability or delays arising from COVID-19 and single-centre workshops will be the primary model of delivery for ENGAGE in ELS.

MMS staff felt that successful implementation was more likely when there was a local manager who supported the process (MMS, MMS), and for this reason managers are encouraged to attend the sessions.

Many ELS have scheduled games and/or have utilised staff meetings to discuss their ENGAGE delivery.

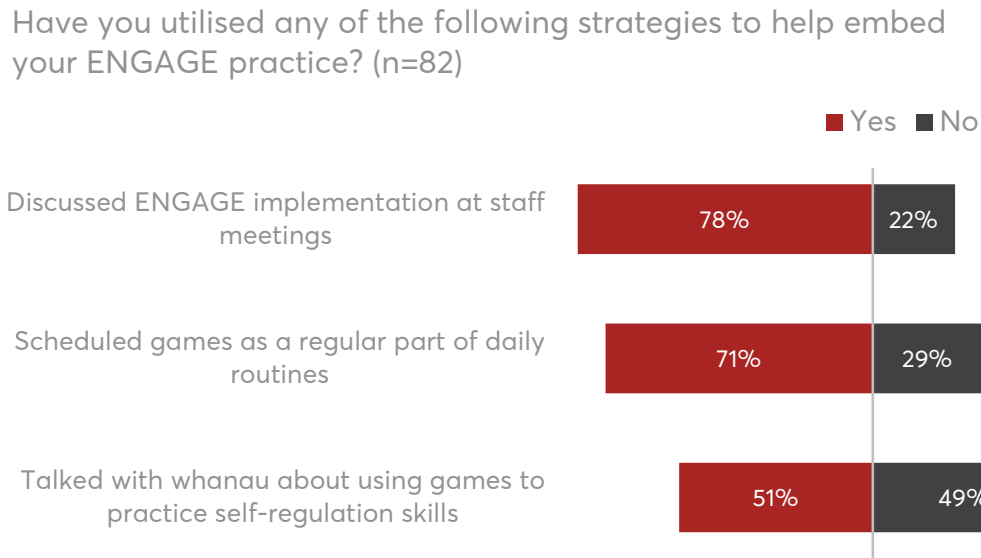
Most ELS identified that they had discussed ENGAGE implementation at their staff meetings, which is likely to be a critical step for embedding the programme (c.f. Fig. 8). A similar percentage had scheduled games as a regular part of daily routines. Almost all services (95%) reported either talking at staff meetings or scheduling games. Whilst ENGAGE can be delivered purely through ad-hoc games, having some scheduled games is likely to help embed the practices. Around half the services had talked with whānau about using games to practice self-regulation skills. The extent of these conversations likely varied, with some interviewees noting they had worked with facilitators to run a workshop for whānau (K7), and others noting they had only brief discussions with whānau (K8).

Whilst not an expectation of the programme, some interviewees identified planning to look at ENGAGE as part of their internal evaluations (K3) or attending hui with other ELS

⁴¹ Kaiako qualifications were no longer significant when considered simultaneously with other variables in a regression model. This is potentially due to overlapping associations between kaiako qualifications and earlier game playing.

around ENGAGE (K7). We sought to understand how common these practices were. Around 13% of ELS responding to the survey reported conducting an internal evaluation focused on ENGAGE, and 12%⁴² reported attending a hui about ENGAGE with other ELS. ELS interviewed who had attended hui valued the opportunity to pick up ideas from hearing what other ELS were doing (K7), or if they hadn't attended hui with other ELS but thought it would be useful to do so in the future (K4, K1, K8 and several survey respondents). One interviewed ELS did not see value in talking with other ELS about how they were delivering ENGAGE (K10).

Figure 8: Reported behaviours to support embedding of ENGAGE practice (n=82)



Kaiako reported changes in the self-regulation of tamariki.

Whilst technically outside the scope of this evaluation, several services described changes in the self-regulation of tamariki. Observed behaviours included positive expressions of emotion and better settling (K4), tamariki more focused (K3, K7), calmer (K6, K9) and better at controlling their body (K6), and tamariki supporting their peers to be calm (K7). The breathing techniques were described as useful for promoting calmness in the tamariki (K7, K9). Some kaiako noted an improvement in individual tamariki who were struggling to settle into their ELS (K4, K3). Some of the open-ended survey feedback also referred to increases in the confidence, relationships, calmness or language around the feelings of tamariki. Observed changes in the tamariki helped to build staff buy-in to the programme (K1).

⁴² A comparison with the number of kaiako attending the hui suggests that this number may under-represent the proportion of ELS attending hui related to ENGAGE.

Scalability

This ENGAGE pilot was assessed in terms of its scalability, predominantly via interview feedback triangulated against delivery information and the survey of ELS participating in the programme.

The evaluation of this pilot indicates delivery in ELS is likely possible with minimal adaptations to the pilot programme, however disruptions caused by COVID-19 made it difficult to draw firm conclusions about the resourcing requirements for future scalability. Delivery can expand beyond the pilot given the workforce capacity and implementation requirements, however expansion to new regions would need to be staged to account for time to build an experienced facilitator base and recruit services. Resourcing requirements would need to be tested further, documentation enhanced and support for facilitators expanded. As noted in the conclusion, MMS has actions in place to address many of the recommended considerations for future delivery, and it will become clearer over the next year how well these actions address the challenges experienced during the pilot.

KEQ3: What would be required to scale up the programme?

Use of existing infrastructure and resources

Existing facilitators provided critical support for expansion to the new regions, including delivery of several workshops in these regions.

Delivery during the pilot built on previous delivery of ENGAGE; existing materials were adapted and five facilitators who were already trained were brought on board for this pilot (Doc 10). Over the course of the pilot the pool of facilitators was expanded by another 12 new MMS facilitators, and three facilitators from the Eastbay REAP group (Doc 10). A team of community-based facilitators also received workshop training and began delivering sessions at the end of the pilot period (Doc 10).

Due to the extended period needed to train facilitators (exacerbated by COVID-19), two existing Auckland facilitators formed the backbone of expansion of the programme in this pilot, including mentoring support to the new facilitators in the Bay of Plenty/Wairariki (MMS). Across the three regions, the two facilitators were involved in at least one workshop in half (47%) of participating Auckland ELS, and around a third of the first workshops held in the Bay of Plenty/Wairariki and Otago/Southland (33% and 29% respectively) (Doc 19). As new facilitators became more confident, they began to deliver sessions independently, and at the conclusion of the pilot, facilitators in both regions were operating independently of the Auckland trainers (Doc 18).

Ministry of Education delivery staff have been informed about ENGAGE but there has been little involvement in delivery so far and it is unclear what role they may have in embedding ENGAGE moving forward.

MMS staff met with a contact in each regional office over several sessions to identify opportunities to work together and to share information about progress and changes in the sector.

Information sessions about ENGAGE were provided to Ministry of Education delivery staff (speech and language therapists and early intervention therapists). Feedback from staff was positive, and many early intervention therapists showed a keen interest in the programme (MoE, MoE, MoE). These sessions sowed the seeds for further engagement within the programme, however they are unlikely to have provided sufficient knowledge for the staff to support ELS with the problem-solving challenges they are experiencing with ENGAGE (MMS, MMS). At this stage, Ministry of Education staff have not been invited to attend the ENGAGE workshops or follow-up sessions.

Whilst there is enthusiasm and interest from both MMS and the Ministry, specific model and parameters around how the Ministry should be involved in the future has not been established (MoE, MoE, MoE).

[THE MINISTRY] ARE REALLY KEEN TO PROMOTE THE TOOLS AND PROMOTE THE STRATEGIES, TO KNOW MORE ABOUT THEM AND TO BE USING THESE AS PART OF OUR MINISTRY TOOLKIT, PARTICULARLY FOR OUR EARLY INTERVENTION TEACHERS – KEY STAKEHOLDER

MMS HAS MADE IT CLEAR THAT THEY ARE VERY KEEN FOR THE MINISTRY TO KNOW AND TO BE INVOLVED IN USING THESE AND SUPPORTING THESE TOOLS AND APPROACHES LONG TERM – KEY STAKEHOLDER

ENGAGE games can be played using existing centre resources

ELS generally noted that ENGAGE games could be played using their existing centre resources and they didn't need to purchase additional resources to run the games (K1, K2, K4, K5, K7, K9, K10, K11). Typical items needed to play an ENGAGE game or activity: "a 'treasure' item for the giant and a large playing area", and "a soft ball or toy and something to play music on", "chalk, a patch of concrete and a bouncy ball" (ENGAGE games cards). One centre noted they had to purchase some non-see-through cups (K6), and another purchased additional balls and a basketball hoop (K3).

Required skills and time

Delivery of the ENGAGE programme has little impact on kaiako capacity or ELS resources.

The major ELS resource was finding the time to attend the workshops. For kindergartens where teams had regular non-contact time, sessions could be scheduled in their non-contact time in the afternoons. For all-day ELS, the ability to attend ENGAGE training (and other professional development) relied on after-work training sessions (MMS). One interviewed service was able to use the recent professional development day granted by the Ministry to complete the content for both workshops. The service found this a particularly good model, as the content around delivery was closely related to the information provided (K11).

A number of kaiako described that implementing the ENGAGE games and strategies didn't require time in itself; *"it doesn't pose any additional demands, it's become part of natural teaching", "it lays over what you're already doing. It's not an extra job"*.

Some ELS noted that some staff meeting time was needed to support embedding, alignment between kaiako, and ongoing development of practice (K1, K2, K7, K8). In one centre staff time was allocated into planning, problem solving and sharing the programme with whānau (K8). However, some ELS felt ENGAGE didn't pose any additional demands on their staff (K4, K6, K10), and in general the time requirements were described as minimal.

ONE OF ITS STRENGTHS IS IT'S NOT DEMANDING ON THE TEACHERS, TO DEVELOP, RESOURCE OR IMPLEMENT. IT'S QUITE EASY TO IMPLEMENT THE RESOURCES AT HAND – KAIAKO

Delivery of ENGAGE to ELS typically involved two workshops and follow-up sessions.

The typical model of delivery of ENGAGE to ELS is two 2-hour face-to-face workshops co-delivered by two facilitators. This is often supported by pre-communication and follow-up support (MMS, Doc 19). In terms of facilitator time, delivery of the four hours of workshops may require at least that time again for pre-engagements, emails and discussions amounting to around 14 hours of facilitator time, split between two facilitators (MMS, Doc 17). These workshops are intended to be timed two weeks apart (MMS, MMS), however during the pilot these were typically scheduled much further apart due to COVID-19 restrictions, and to accommodate staffing pressures on services (Doc 19).

Follow-up visits were described as an essential component of the programme for many kaiako. Interviewees were often interviewed prior to their follow-up sessions and identified that face-to-face follow-up visits would be useful for problem solving

challenges experienced with delivery, to enrich what they're doing, provide an external view on whether they were doing the delivery correctly, or enable them to watch a facilitator deliver the games so they can observe how they do it and the language they use (K3, K4, K6, K7, K9). Many ELS also requested additional follow-ups via the open-ended survey feedback. Initial resourcing estimates suggest that six follow-up sessions may be part of the business-as-usual model for future delivery, although more are expected to be needed for some services (Doc 17, MMS).

FOLLOW-UP DISCUSSIONS TO GIVE IDEAS ON HOW TO KEEP EXTENDING THE GAMES. E.G., MORE ADVANCED LANGUAGE FOR OLDER TAMARIKI, TE REO USE, HOW TO ALTER GAMES TO BE MORE CULTURALLY INCLUSIVE/CULTURALLY ACCESSIBLE. – KAIAKO

Three of the interviewed ELS did not feel they needed follow-up sessions to be able to implement the programme (K11, K1, K3). However, disinterest in follow-up sessions may not always mean that delivery is going well; the two ELS struggling with implementation had chosen not to take up opportunities for support offered by facilitators (K1, K3).

Follow-up support was also provided through large online hui for ELS taking part in the programme. One session was provided during this pilot, and additional sessions are planned for the future (MMS). Those who had attended this session with other services found these very useful for generating and sharing ideas about different ways to deliver the programme (K7, K9). Services noted that they were interested in talking with other services to find out what games had worked for them and what games they were playing (K1, K3, K4, K5, K6, K7, K9). However, one centre cautioned that time demands may constrain their ability to talk with other services (K5).

We were unable to obtain information on how many follow-up sessions had been provided in each centre. This suggested there was no clear mechanism within this pilot period for identifying who had follow-up sessions, how many they had, or who may be most in need of these moving forward.

Around half of ELS had spoken with whānau about playing the games, with many ELS wanting greater support to extend the programme out to whānau.

Kaiako were interested in working with whānau to support them to run ENGAGE games with their tamariki (K3, K4, K8, MMS, MMS, MMS), and some centres were in the early stages of doing this (K7). For example, one centre videoed how to play the games and sent these to parents on messenger during lockdown (K7). The community facilitators in Eastbay REAP were particularly interested in extending the programme to whānau and had opportunities to do so through delivery in their local ELS playcentre groups (MMS).

However, one centre felt that it would be difficult to deliver ENGAGE to whānau in a culturally appropriate way or without support from facilitators (K3). Another noted that

the literacy requirements of the resources and the time commitment from parents to attend a whānau workshop may also not be feasible for their communities (K2).

Facilitators need strong interpersonal skills and either early childhood experience or to be partnered with a facilitator who has this experience.

Attributes of a good facilitator included excellent relationship builder, passionate, authentic, collaborative, adaptable, active listener, an ability to relate to the identity and language of trainees, and early childhood and/or facilitation experience (MMS, MMS, Doc 16). The strong interpersonal skills of the facilitators in this pilot was often reflected on during the interviews. Kaiako appreciated that the facilitators listened to their local context (K2, K4), were available to contact with questions (K4, K7, K9), offered useful ideas (K4), and were positive and enthusiastic (K7). Facilitators also reflected that taking time to learn about the local context of a centre was important for generating buy-in and delivering the programme in a way that would support the goals of each centre (MMS).

THE SESSIONS WERE VERY WELL RUN WITH FACILITATORS WHO WERE KNOWLEDGEABLE AND EXCITED ABOUT WHAT THEY WERE DOING! THE REGULAR CONTACT WAS GOOD FOR ACCOUNTABILITY AND CONSISTENCY - KAIAKO

MMS noted that people with these existing skill sets are likely to have existing work (MMS) and thus recruitment of facilitators has relied on word of mouth and shoulder-tapping, including through Ministry of Education contacts and the networks of existing facilitators (MMS, MMS, MMS). Traditional approaches to facilitator recruitment, such as advertisements on online job forums were not tested in the current pilot (MMS). All regions in New Zealand will have an existing base of staff with early childhood experience and thus should theoretically have a workforce suitable for this job description.

In addition to these roles, MMS will be building in additional roles around facilitator support and quality improvement for the coming years.

MMS partnered with a local community provider to extend the programme to difficult-to-reach communities in the Bay of Plenty/Waiariki.

MMS involved an existing local community education provider in delivery of the programme in the Bay of Plenty/Waiariki region. This provider has te reo and tikanga expertise and substantial experience working with early learning providers and whānau in Māori communities, impoverished communities and difficult to reach communities (MMS). Both MMS and Eastbay REAP were excited about the potential for future delivery of ENGAGE via a collaborative community-embedded model (MMS, MMS).

Contractual logistics, limited response from initial approaches to their local services and their availability to deliver additional training meant that this provider had observed but not yet delivered a session by the end of the pilot. The Eastbay REAP felt they were equipped to translate the content for their settings but noted that the facilitator workshop was too fast for them to learn about each piece of content and simultaneously think about how they would adapt and deliver this (MMS). Recent face-to-face discussions have led to some services signing up for the programme, and the provider was confident that delivery would get underway in the second half of the year (MMS).

**IT'S ABOUT OUR PEOPLE DELIVERING TO OUR OWN AND IT SUPPORTS YOUR PROGRAM WITHIN OUR COMMUNITY AND GIVES [ENGAGE] MANA AS WELL
— KEY STAKEHOLDER**

**THEY'VE LET US RUN IT HOW WE NEED TO RUN IT IN OUR COMMUNITY,
THAT'S WHAT I'VE APPRECIATED THE MOST - KEY STAKEHOLDER**

Resourcing was disrupted during the pilot due to COVID-19 and there is a need for further testing of the resourcing requirements for wider scaling.

Seventeen facilitators and three Eastbay REAP facilitators were involved in the delivery of this pilot (Doc 10). Most of these facilitators are employed as contractors on a part-time basis. Delivery of the pilot was also supported by other employees of MMS who provide budget, administrative and communication support. Resourcing in this pilot was not considered to be a good representation of future resourcing due to the impact of COVID-19 on the administrative cost increases generated by rescheduling sessions and recruitment challenges (MMS). Lower than intended numbers of follow-up sessions were also alluded to, although data on the number of follow-up sessions delivered has not been captured.

Through stakeholder interviews, we attempted to estimate the time requirements for delivery of the ENGAGE programme, however the estimates offered varied substantially and these are not inclusive of all the background support required to deliver the programme. We thus have limited confidence in the specifics of these estimates and have not included them here.

MMS has contracted an external contractor, Findex, to support them with modelling resourcing requirements for future delivery. This modelling estimates that for MMS to deliver to most services (3,000 ELS) over a 6-year timeframe, their workforce would need to expand to around 40 full time staff (Doc 11). However, these staffing estimates are at the preliminary stage and further refinement of the estimates will be made as the delivery requirements for each service are tested and refined in 2022 and 2023.

Regional differences and scale-up

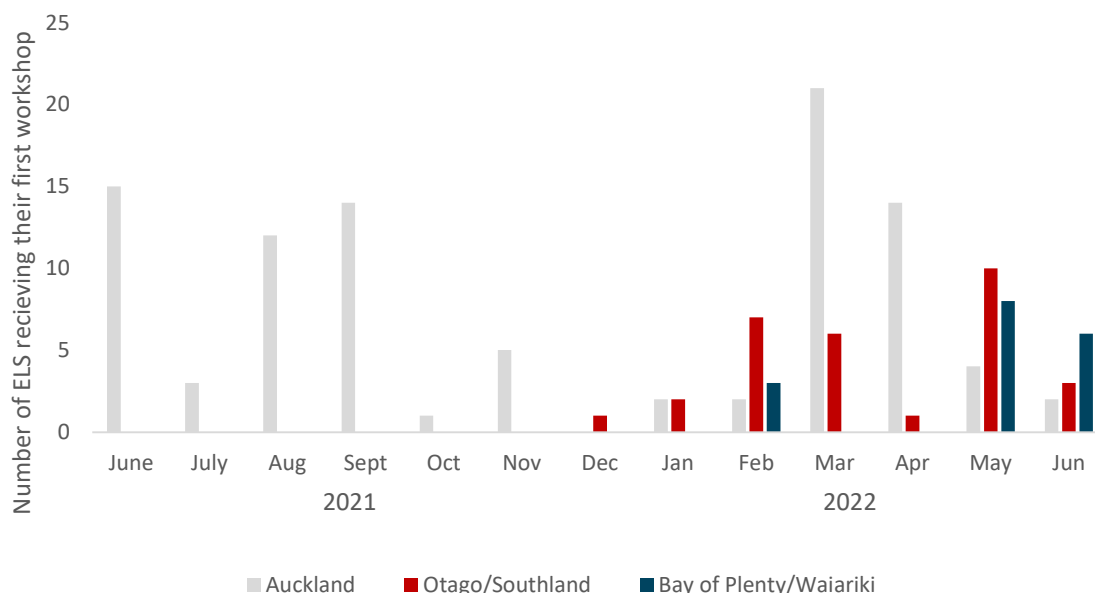
Existing facilitator capacity in Auckland, and to some extent in Dunedin, supported timely delivery in these regions.

Delivery in Auckland drew on an existing facilitator base and services already interested in attending the programme, allowing delivery in this region to get off the ground quickly (MMS, MMS). Delivery in Auckland also benefited from a Tongan facilitator who had existing relationships with several Pacific language ELS (MMS), and facilitators who had existing relationships with ELS as part of their other roles (MMS).

Delivery in Otago/Southland benefitted from one facilitator with some prior experience who was able to provide mentoring and support to other facilitators in this region (MMS, MMS), and the new facilitators collaborated in their learning about the programme (MMS).

In the Bay of Plenty/Wairariki, facilitators were based across three geographically distinct locations. These facilitators did not seem to have the same opportunities for collaboration; at least in late May, facilitators had not yet met together online or in person since the training workshop (MMS). The geographical spread in the Bay of Plenty/Wairariki (combined with a smaller pool of facilitators) likely also made travel and co-facilitation harder; several sessions in the Bay of Plenty/Wairariki were delivered by a single facilitator (Doc 18).

Figure 9: Delivery to ELS June 2021-June 2022, by region



There was also regional variation in how many ELS chose to take part. Some of this variation is likely to be due to the impact of COVID-19 on ELS staffing in the Bay of Plenty/Waiariki.

There were substantial regional differences in how services were chosen to take part. In Otago/Southland the participation of Ministry-nominated services was 80%; in Bay of Plenty/Waiariki it was 30%. In Auckland MMS focused on services who had requested access to the programme, due to a small number of referrals from the Ministry office and concerns about approaching services during the 2020 Delta lockdown. As the Ministry list was not utilised in Auckland, we cannot calculate the participation rate of Ministry-nominated services for this region.

Lower rates of recruitment in the Bay of Plenty/Waiariki likely arose in part because delivery coincided with the re-emergence of COVID-19 in the community and the associated disruptions to ELS staffing and visitor restrictions (MMS, MMS). One facilitator described her experience of trying to recruit centres in the middle of a COVID-19 peak as "there seemed to be a feeling that the staff are feeling quite overwhelmed and [managers] don't really want to load anything else onto their plate."

When expanding to new regions it is likely that additional time and resource will be needed to build local knowledge and interest in the programme. Several services in Auckland and Otago/Southland noted that existing relationships motivated participation in the programme (K1, K5, K1, K6).

These recruitment challenges also created disruption to the delivery dates, particularly in the Bay of Plenty/Waiariki (c.f. Figure 9).

Other scale-up requirements

THE KEY ELEMENT IN BEING ABLE TO CONTINUALLY SCALE IS MAKING SURE THERE IS A GOOD SUPPLY OF HIGH-QUALITY FACILITATORS IN THE PLACES WE NEED THEM, WHEN WE NEED THEM. – KEY STAKEHOLDER

Building an experienced facilitator base in a new region is a core component of future scaling but takes time and resource to establish.

The training and upskilling of facilitators took at least 40-50 hours for trainees, plus the time of those involved in facilitating the training workshop over a period of two to four months (MMS, Doc 19). Training involved attendance at a two-day workshop, shadowing of multiple sessions, onboarding and background reading (Doc 20, MMS).

MMS hoped to train facilitators within 6-8 weeks (MMS), but during this pilot, facilitators began delivering workshops 2-4 months later than originally planned in Otago/Southland, and four months later than expected in the Bay of Plenty/Wairariki⁴³ (Doc 19). The additional time needed to train facilitators was in part influenced by delays in recruitment of services to the programme, which as previously mentioned was largely due to COVID-19.

The original plan for a 5-day training and shadowing period in Auckland had to be cancelled due to COVID-19 (MMS). Instead, facilitators shadowed delivery to services in their own region (MMS), which relied on first recruiting services from their region to the programme. Recruitment in the Bay of Plenty took a long time, as previously mentioned, and thus facilitators did not have shadowing opportunities for several months after their training. In Otago/Southland the training of facilitators was faster than in the Bay of Plenty/Wairariki, in part because services were recruited more quickly. Where shadowing of delivery is done with local services, delays to the recruitment of services will have flow-on effects to the length of time between when facilitators first attend training and when they are able to operate as independent facilitators.

Facilitators also indicated that the amount of shadowing opportunities each facilitator needed to feel comfortable with delivery varied between individuals (MMS, MMS). MMS is planning for this variation in its model for recruiting and training facilitators. If online delivery continues, shadowing of these sessions may be helpful for supplementing face-to-face delivery, but in general face-to-face shadowing was considered superior to the shadowing of online sessions for building experience. One facilitator noted that it was difficult to convince ELS of the value of investing in the programme without first-hand experience of how other ELS had embedded and benefitted from the training (MMS).

Facilitators identified the following potential improvements to the training and facilitators roles.

⁴³ A single workshop was delivered prior to this delay in both Otago/Southland and Bay of Plenty.

- Facilitators found it valuable to learn from each other's perspectives and to problem solve together, particularly when facilitators had different prior experience (e.g. some facilitators did not have an ECE background, and others did not have explicit facilitation experience) (MMS, MMS). This wasn't necessarily happening in all regions during the initial stages of the pilot.
- Facilitators outside of Auckland noted an interest in more ongoing support and mentoring (MMS, MMS).
- Clearer role descriptions and greater clarity around the process of becoming a facilitator could support facilitators starting on the programme (MMS).
- At least one facilitator noted the casual, part-time contract hours were a barrier to long-term employment with ENGAGE (MMS).
- One person identified an interest in shadowing more than one individual to get a sense of different ways of working (MMS).

MMS has since appointed someone in a role specifically focused on facilitator training and mentoring that should address many of these potential improvements.

The time needed to set up a new facilitator base in a new region will determine how quickly the programme can successfully expand to other regions. Initial modelling contracted by MMS also favours a staged approach, with any expansion focused on one to two new regions each year (Doc 17).

IT WOULD BE COOL IF WE [THE FACILITATORS] KNEW EACH OTHER BEFORE WE CAME INTO THESE CENTRES SO THAT WE CAN FIND THE WAY THAT WE WILL WORK BEST TOGETHER – KEY STAKEHOLDER

Recruitment targets were achieved in this pilot despite difficult circumstances. Opportunities to improve and/or clarify the process for selecting and recruiting services were identified during the pilot.

Overall, the process for recruiting services achieved the targets for this pilot in difficult circumstances. Clarifying roles around selection and recruitment as well as streamlining processes for approving services for participation would support future scaling of the programme.

As noted earlier, the impact of COVID-19 on ELS staffing was cited as a barrier to ELS recruitment during this pilot (MMS, MMS). Despite the difficult context, over the course of the pilot MMS achieved their target of delivering the programme to 120 ELS and expanded delivery beyond this initial target to an additional 30 ELS in Auckland.

Participation in ENGAGE was motivated by a good fit with a centre or lead staff member's existing philosophy (K4, K5, K6, K7, K2, K3), and existing relationships with facilitators or with others who knew about or who had participated in the programme (K1, K5, MMS, K1, K6). Recruitment via email sometimes received no response and phone or face-to-face conversations were often more successful (MMS, MMS).

Opportunities to improve recruitment were identified, including a system and process for recruitment of ELS that included templates and support (MMS). There may also be opportunities to make better use of the Ministry's relationships with services to boost recruitment in new regions (MoE). Recruitment of ELS to the programme can take substantial resource, particularly in regions where there is no existing word of mouth or delivery.

Moving forward it may also be useful to clarify the role of the Ministry in recommending services to participate in the pilot. At the outset of this pilot, it was intended that the Ministry would recommend services to participate. However, due to challenges with recruitment and delays in receiving recommendations from the Ministry, most (76%) of the participating services in this pilot were self-referred or were directly referred by MMS (Doc 19).⁴⁴

The specific criteria Ministry staff used to select services differed between and within regions, but typically considered indicators of ELS need and capacity to implement the programme (MMS, MMS, MMS, MoE, MoE, MoE). For example, need was sometimes defined in terms of a high number of referrals to Ministry support services, and sometimes it was around ELS equity (MoE). Capacity to implement was weighed up against whether an ELS had stable management and staffing to support implementation (MoE).

Regardless of who recommended each service, these services needed to be approved internally by the Ministry before workshops could commence. In Auckland, the internal Ministry process for approving services to participate was time consuming. The process of approving each centre involved at least three separate groups, including the contracts and monitoring teams, and multiple follow-up emails (MoE). The process was made challenging in part due to the large size of this region, where there are approximately 28 service managers and 350 field staff. Some improvements have since been made to the processes for approving services to participate.

As intended, lower equity ELS and ELS with a higher than average proportion of Māori and Pacific tamariki were slightly over-represented in this pilot (c.f. Fig.10., c.f. Fig.11). Māori tamariki were more strongly represented in Ministry-referring services than self-referring services. Kindergartens were also over-represented in services participating in the pilot.

Figure 10: Proportion of Māori and Pacific tamariki in participating ELS, relative to the cohort of tamariki in ELS in the three regions

⁴⁴ The Ministry office in Auckland initially only referred 14 services to the programme. The decision to focus on Auckland services already interested in the programme was driven in part by the concurrent timing of COVID-19 and challenges/expected response to cold calling services during this time.

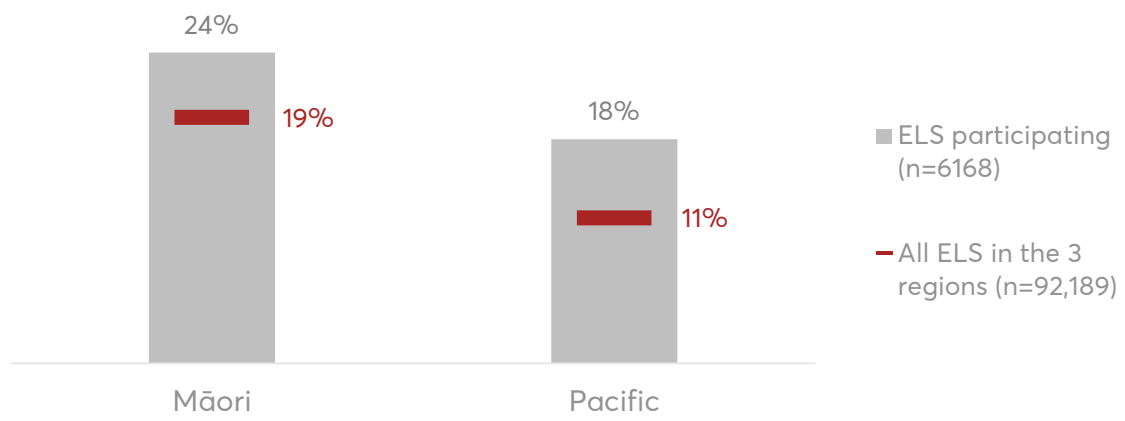
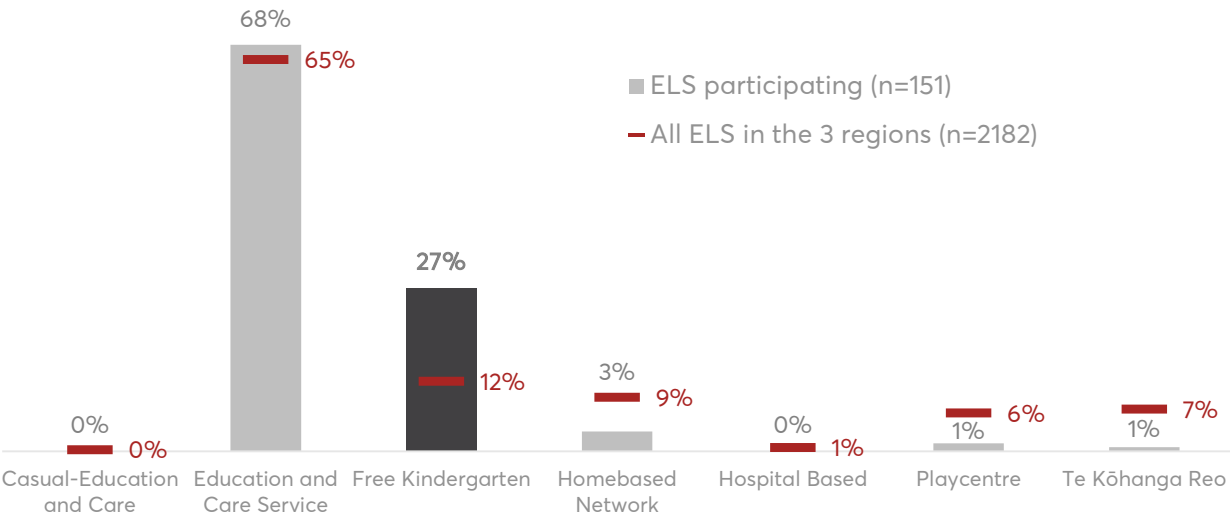


Figure 11: The proportion of participating ECEs compared to the general population, by service type



KEQ4: Which assessments and measurement approaches are appropriate and feasible for an impact evaluation?

A randomised controlled trial on the impact of ENGAGE is being conducted by university academics in collaboration with MMS and BestStart early learning centres.

A randomised controlled trial, Kia Tīmata Pai, is underway to explore the impact of ENGAGE delivery within an early learning setting on the self-regulation skills of children.⁴⁵ The study is being undertaken by a group of academics from New Zealand in collaboration with MMS and BestStart early learning centres. The study has a large sample and as part of this trial it is intended that ENGAGE will be delivered to 800 tamariki from 2023 onwards. This study will include both teacher and parent ratings of self-regulation (teacher-rated Child Behavior Questionnaire, teacher-report Behavioral Assessment Scale for Children – 3, and parent-report Behavioral Assessment Scale for Children). Task performance on working memory, behaviour inhibition and categorisation tests will also be assessed. Control groups will provide comparative data about the degree of change in self-regulation happening over this time among tamariki not participating in ENGAGE, enabling the study to provide strong claims about causation.

In interpreting the results of this study for the impact of broader delivery it will be important to compare how standard delivery in real world settings is of a similar intensity to that offered within the randomised controlled trial, and whether the BestStart ELS involved in the trial are representative of the broader New Zealand ELS context.

A range of formal validated measures exist for assessing self-regulation in young children

Appendix D outlines common measures designed to assess self-regulation that have been assessed for validity and reliability and are suitable for children under 5. As noted in the table, many of these measures have been included in the planning for the ENGAGE randomised controlled trial described above.

Such measures typically need to be completed by someone who knows the child well (e.g. a teacher or parent), although some measures of specific social and emotional competencies involve measuring how a child performs on specific tasks (e.g. following instructions) and can be administered by an external person who is experienced at working with children.

⁴⁵ Australian New Zealand clinical trials registry. (2021). Trial registered on ANZCTR. <https://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?id=381848&isReview=true>

Additional avenues for an impact evaluation include an assessment of implementation sustainability, case studies and/or monitoring rates of referrals to Ministry support services.

ELS typically used narrative approaches to assess social and emotional learning through the learning stories of tamariki (K6, K10, K4), and sometimes more formal processes integrated with parent-teacher interviews (K5). Preferences were expressed for internal narrative assessments (K10, K9), or if formal assessments were to be undertaken, that these focus on a small group of target tamariki (K10, K3).

Service-level indicators such as number of referrals may provide a useful monitoring tool or a supplementary indicator of impact. The number of referrals to the Ministry for each ELS would likely need to be at least 250 services involved in the programme to detect any statistically significant changes in this metric.

Another avenue to potentially examine that was not captured in the present study or the planned randomised controlled trial is the sustainability of practice in ELS over time. Sustainability of practices is a common problem following training courses and there were isolated comments about practices slipping over time (S15) and uncertainty whether their service would still be implementing the programme in a year's time (K1). An annual phone call to services could be used to assess the percentage of services still participating at one year, two years and three years.

There was mixed interest among interviewed ELS in undertaking additional formal assessments of self-regulation to assess the impact of ENGAGE; with some supporting (K1, K4, K7, K10), but some not (K2, K5, K6, K8). The inclusion of formal assessments may *"take the fun out of"* the programme and may sway services to choose not to participate in the programme (K2).

Given the planned randomised controlled trial is already undertaking such measurements there will be little utility in duplicating this effort.

CONCLUSIONS



What can we conclude?

This process evaluation was commissioned to help the Ministry of Education understand how the programme is implemented, and how these services are relevant, efficacious and potentially scalable for the early learning sector. The evaluation evidence will be used by the Ministry to inform policy advice to the Government and to make informed decisions about any future delivery of initiatives and programmes in ELS.

The text below summarises the evaluation findings, provides considerations for future delivery and notes where Methodist Mission Southern already has actions underway to address these considerations.

ENGAGE was consistently relevant to the curriculum, kaiako and tamariki.

Participating kaiako considered the programme relevant to their role, and feasible to implement with tamariki aged two and over. ENGAGE was also viewed as easy and practical to implement by most. A small group of individuals and ELS struggled with implementation, typically due to staffing issues. The ENGAGE games cards were important for making the programme practical for ELS.

Many ELS have adapted some of the ENGAGE games or how the games are implemented for their ELS context. ELS appreciated the flexibility to select games that addressed gaps in their current practice. Facilitators also had some freedom to adapt their delivery during this pilot, enabling them to adapt the workshop delivery to the context and existing knowledge of each ELS. The flexibility of the programme does enable variation in the type and quality of delivery, and so a clear description of essential elements would help ensure fidelity is maintained within these adaptations.

Consideration 1. Consider developing a clear list of core practices (e.g. a fidelity checklist) for both ELS and workshop delivery. The University of Otago is currently developing such a list.

ENGAGE supports many of the goals outlined in He Māpuna te Tamaiti (the Ministry's social and emotional learning resource for ELS kaiako) and Te Whāriki (Early Childhood Curriculum). For example, games provide opportunities to discuss feelings, practice social skills, incorporate calming rituals, use gesture and movement, practice turn taking and practice controlling their bodies. ENGAGE encourages teachers to employ the intentional teaching practices included in He Māpuna⁴⁶ within games (e.g. encouraging, describing, providing vocabulary, fading support, scaffolding, reminding).

The programme was generally viewed to be culturally responsive and able to be adapted to various cultural contexts. Involvement of a Pacific facilitator and adapted workshops for Pacific ELS was an existing strength of the Auckland delivery and during this pilot MMS employed two Māori facilitators who provided support to others and

⁴⁶ Ministry of Education. (2019). He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning. Cognition Education for the New Zealand Ministry of Education. <https://tewhariki.s3.ap-southeast-2.amazonaws.com/public/Teaching-strategies-and-resources/Files/He-Mapuna-te-Tamaiti-book.pdf>.

partnered with a local community provider (East Bay REAP) who had strong te reo and tikanga expertise. Despite these strengths, some kaiako, facilitators and Ministry staff noted there is need for further cultural adaptation such as within the cards and resources for whānau.

Consideration 2. Identify opportunities for further cultural adaption, particularly for Māori. MMS has pieces of work underway, working with partners to strengthen the bicultural lens of the programme and cultural resources for whānau.

ENGAGE was effective in terms of building knowledge and practices related to ENGAGE such as increasing the variety of games played in centres and changing how games were played.

The training workshops and follow-ups were good at providing kaiako with the knowledge needed to deliver ENGAGE. For example, almost all surveyed kaiako reported that they had a very good understanding of how to integrate intentional playing of games within their centre, and how to identify the self-regulation skills being practiced in a particular game or activity. Confidence implementing the games was reported to be very good for staff in most (82%) ELS.

ENGAGE delivery appears to be contributing to an increased variety of games, a more intentional approach to playing games, and the use of language to draw attention to the self-regulation skills being practiced in the games. Most ELS surveyed incorporated specific language into their games and intentionally selected games regularly. A small proportion of services indicated they were not utilising deliberate language when playing games. This language is thought to be important in helping tamariki to think about the skills they are using when playing, and to generalise these skills to other activities, and is something that MMS plans to discuss further with ELS in follow-up sessions.

Most services were already playing games similar to ENGAGE prior to participating in the pilot, albeit often without the same focus on intentionality and language. Around half of ELS surveyed reported increasing the time they spent playing games following participating in ENGAGE, on average for an extra 10 minutes per day. Those services that were already frequently playing games prior to ENGAGE were also more frequently implementing ENGAGE-related behaviours following ENGAGE.

Consideration 3. Continue to look for and support those ELS with implementation via follow-up sessions. Follow-up support should continue to pay attention to building confidence among those staff not yet comfortable with delivery and helping services to integrate language within the games.

Consideration 4. Some services are already performing some of the behaviours encouraged through ENGAGE and thus have less to gain from their participation in the programme. Consider whether existing game-playing and other practice should be considered in identifying which services may benefit most from ENGAGE.

Single-centre workshops are the primary model of delivery for ENGAGE in ELS. However multicentre workshops were sometimes held in response to COVID-19 delays or requests from groups of services that often collaborate on professional development. Those services who attended workshops solely for their centre were, on average, more frequently implementing ENGAGE-related behaviours. It is unclear if this relationship exists because workshops delivered to a single centre provide better learning experiences or whether services who requested multicentre workshops somehow differ from those who did not. In some multicentre workshops a portion of the staff missed the first session, and interviewees identified that this resulted in lower levels of buy-in or understanding among those staff. Multiple other factors, such as manager buy-in, may also influence how well ELS implement ENGAGE. These factors may signal where ENGAGE facilitators need to spend more time supporting implementation.

Consideration 5. Infrequent prior game-playing, low proportions of trained kaiako, low proportion of staff attendance at workshops and whether services attended a multicentre workshop may be useful indicators of which services might need additional follow-up support.

ENGAGE is likely scalable with minimal adaptations to ELS recruitment and facilitator training and support, although there is a need to monitor whether the challenges experienced during this pilot are resolved in 2022/2023.

Facilitator training is critical to scaling, and it takes time and resource to set up a base of experienced facilitators in a new region. Over the course of this pilot 15 new facilitators were recruited and delivered workshops. These 15 included three facilitators engaged through a partnership with a community provider (Eastbay REAP) who were experienced in te reo and tikanga Māori and working with marginalised and/or geographically isolated communities. The existing Auckland facilitators provided critical support for expansion to the new regions, including the delivery of training sessions for three or more months in each new region as new facilitators developed their confidence.

COVID-19 impacted the length of time needed to bring new facilitators up to speed. However, a key reflection for MMS from this pilot is that setting up experienced facilitators in a new region takes time and some level of ongoing support. Thus any future growth into new regions will likely need to be done in stages so that sufficient resourcing can be allocated to building this facilitator base, as well as building awareness of the programme. Current thinking by MMS suggests that expansion to one or two regions a year may be feasible.

Consideration 6. Improve the support and training of facilitators. If not already happening, MMS could consider offering opportunities for facilitators, including those based in partner organisations, to problem solve with other facilitators.
New staff training and mentoring roles have been appointed within MMS.

Recruitment of ELS to ENGAGE was disrupted by COVID-19 during the pilot, particularly in the Bay of Plenty/Waiariki where only 30% of those referred by the Ministry agreed to participate (in comparison to 80% of those referred by the Ministry in Otago/Southland).

Many services cited time pressure as a reason not to participate. If ELS staffing remains under pressure this may pose a barrier to future uptake of this and other professional development. A need to improve the coordination and messaging of ELS recruitment processes was identified within the pilot.

Consideration 7. Monitor ongoing rates of recruitment to the programme to assess likely future demand for the programme. Continue to offer a range of times and options for services to help to reduce some of the time-related barriers to attending sessions.

Consideration 8. Strengthen the processes around centre recruitment, for example, with templates and clearer roles, and face-to-face discussions where this is feasible. *MMS already has work underway to improve these processes.*

Ministry of Education delivery staff have been informed about ENGAGE. However there isn't yet clarity on whether the Ministry should be allocating resources to embedding ENGAGE or recruiting services to ENGAGE moving forward, and what role they want to maintain in the selection of services. The size of the Auckland region and number of teams involved in approving each service created delays in both recommending services and approving self-referred services.

Consideration 9. MMS and the Ministry should confirm expectations around who selects services to participate in ENGAGE and the criteria for selecting services. For example, the Ministry could elect to retain the ability to recommend services in need of support, or they may set a target around the percentage of services that should be referred by the Ministry.

Consideration 10. Explore whether the process for recommending and/or approving services in large Ministry regions can be streamlined further.

Consideration 11. Clarify the parameters around whether Ministry time should be allocated to supporting ENGAGE delivery or recruitment. *MMS plans to test potential options for greater involvement of the Ministry in delivery over 2022-2023.*

Facilitators and kaiako noted that facilitators' strong interpersonal skills and early childhood experience were important for generating buy-in and relationships with the ELS, and for problem-solving challenges experienced by the ELS. Where facilitators do not have early childhood experience, they may benefit from being partnered with a facilitator who has this experience.

Consideration 12. Continue to seek out facilitators with strong interpersonal skills. New facilitators who do not have early childhood experience could be partnered or co-facilitate with others who do have this experience.

Follow-up sessions are an essential component of the programme for many ELS. Many services in this evaluation requested additional follow-up sessions. These requests may reflect that a number of follow-up sessions had been delayed due to COVID-19. There did not appear to be a clear mechanism within this pilot period for identifying who had follow-up sessions, how many they had, or who may be most in need of these moving forward.

Consideration 13. Strengthen processes around the provision of follow-up sessions, including monitoring how many are being delivered and whether the services who need these are receiving them.

Around half of ELS had spoken with whānau about playing games, with many ELS wanting greater support to extend the programme out to whānau. Some noted English language proficiency and parental availability for workshops as potential constraints for delivering the programme to whānau.

Consideration 14. Continue to support ELS with skills and tools to talk with whānau around ENGAGE. Consider if and how the whānau resources could be simplified and adapted for communities with low literacy and/or low levels of English. *Work is underway within a parallel project that is delivering ENGAGE within a small number of multicultural playgroups to translate materials into 8-12 languages.*

Resourcing was disrupted during the pilot due to COVID-19, with additional time spent on recruitment and rescheduling, and less time spent on follow-up sessions compared to the intended delivery. There is a need for further testing of the resourcing requirements for delivery before finalising these for wider scaling.

Consideration 15. Monitor the resourcing needed to deliver ENGAGE, and the time period needed to train facilitators over 2022 and 2023.

Existing research into ENGAGE has demonstrated improvements in hyperactivity, inattention and aggression following a parent-led programme for preschool children.⁴⁷ An unpublished pre-post study of delivery in ELS identified similar improvements. Academic institutions in New Zealand are conducting a thorough randomised controlled trial on the impact of ENGAGE is planned for 2023 onwards and will provide a robust test of the impact of the programme on self-regulation skills of tamariki. The Ministry could supplement this research with case studies, monitoring of how well ENGAGE practices are sustained in ELS over time, or ongoing monitoring of the rates of referrals to Ministry support staff for those services participating in ENGAGE.

⁴⁷ Healey, D., & Healey, M. (2019). Randomized controlled trial comparing the effectiveness of structured-play (ENGAGE) and behavior management (TRIPLE P) in reducing problem behaviors in preschoolers. *Scientific reports*, 9(1), 1-9. <https://doi.org/10.1038/s41598-019-40234-0>.

APPENDICES



Appendix A

Evaluation criteria rubrics

The following rubrics were applied to assess the gathered evidence and make judgments about the relevance, effectiveness and scalability of ENGAGE.

Table A1: Performance of the ENGAGE in ELS pilot according to the relevance criteria

Criteria	Did not meet expectations	Met expectations	Exceeded expectations
Relevance	ENGAGE is rarely relevant to people (tamariki, kaiako, Ministry) and NZ context.	ENGAGE is potentially relevant to people (tamariki, kaiako, Ministry), and the NZ context.	ENGAGE is consistently relevant to people (tamariki, kaiako, Ministry) and the NZ context.

Table A2: Rubrics to assess the effectiveness of the programme in changing kaiako knowledge and practices

Criteria	Did not meet expectations	Met expectations	Exceeded expectations
Effective	ENGAGE rarely achieves the desired goals, and few changes in relation to kaiako social and emotional abilities are evidenced.	ENGAGE achieves the desired goals, albeit inconsistently, and evidence demonstrates some changes in relation to kaiako social and emotional abilities.	ENGAGE consistently achieves the desired goals and is making significant and large shifts in relation to kaiako social and emotional abilities.

Table A3: Rubrics to assess the scalability of the programme

Criteria	Did not meet expectations	Met expectations	Exceeded expectations
Scalable	ENGAGE's delivery is rarely possible and can rarely expand beyond the pilot given implementation requirements and workforce capacity.	ENGAGE's delivery is potentially possible with the given workforce capacity and implementation requirements.	ENGAGE's delivery in ELS is possible with minimal or no adaptations to the pilot programme. Delivery can expand beyond the pilot given the workforce capacity and implementation requirements.

Approach/Methodology

This process evaluation used a mix of qualitative and quantitative methods to answer the evaluation questions. The evaluation sample included all ELS who participated in the ENGAGE training.

Interview method

In total we conducted 21 key stakeholder interviews. All were conducted online. These were held with Ministry of Education regional staff (3), Methodist Mission Southern and its facilitators (six interviews of which three were group-based), Dione Healey (1) and individual interviews with kaiako from 11 services who had participated in the programme. Interview sampling sought to capture services with a variety of experiences with the programme. We aimed for a split across regions, ethnicity of the tamariki and delivery type (online vs face-to-face). Limited numbers of face-to-face workshops and later than expected delivery in the Bay of Plenty/Wairariki mean that we have fewer services for these groups. The final sample is shown below.

Table A4: Interview sample of ELS kaiako

Region	Online	Face to face
Auckland	3	2
Otago/Southland	4	
Bay of Plenty/Wairariki	1	1

Note. Two of the 11 services had a high number of Māori tamariki (>40% of tamariki in the ELS), three had high numbers of Pacific tamariki.

Interviews were conducted between February and June 2022. A copy of the interview questions is provided in Appendix C.

The interview notes were analysed thematically within each KEQ using NVivo software.

Document review

We conducted a document review of workshop resources to clarify and aid our understanding of ideas communicated through interviews with MMS or kaiako. We reviewed other documents, such as programme delivery records and estimates of future resourcing requirements, to understand the specifics of what was being delivered to whom.

Survey method

The questionnaire was set up to be administered online. The evaluation team used the online software [LimeSurvey](#) in a paid subscription, with Australia as the hosting server location to administer the questionnaire. The questionnaire was only accessible to individuals who received email invitations with the URL. These emails were delivered via MMS facilitators or administrators. One person from each centre was asked to complete the survey.⁴⁸ The survey was administered in the first two weeks of June.

Programme participants were defined as ELS that had taken part in the ENGAGE workshops between June 2021 and mid-May 2022 as part of this pilot. One representative from each participating service was invited to partake in the survey. In total there were 82 distinct and complete responses, and the overall response rate was approximately 65%.

The survey asked questions about their experience with the programme, and knowledge and practices related to ENGAGE. We asked participants for the name of their centre. We used this to combine their responses with information about MMS delivery to each centre and centre demographics to understand how these factors related to successful implementation of the programme.

To increase the response rate of the survey, we:

- donated \$10 to charity for each submission
- distributed the questionnaire through MMS, who had a relationship with the participants
- sent follow-up reminders via email and in some instances called ELS to check if they had received the link and wanted to participate.

Note on survey bias

The survey took a census-style approach. This means that all eligible programme participants were invited to participate in the survey and there is no sampling bias. However there is missing information from those who chose not to participate. While the nature of the non-response remains unknown, we can assume that those who did not respond to the survey are likely to be different to those who did respond. This means there is potential for bias in the survey results, and they should be interpreted with this in mind. To better understand the non-response bias it is helpful to compare the two groups across a range of variables (Figure A1 and A2 below).

Who participated in the survey?

In total 126 ELS received their first workshop for the ENGAGE pilot programme prior to 14 May 2022 and were subsequently invited to take part in the survey.

Eighty-two ELS responded to the survey and the overall response rate was approximately 65%.

⁴⁸ Where more than one person responded from the same ELS we utilised the first response submitted.

The response rate was slightly lower in Auckland (c.f. Fig. A1), and among education and care services and home-based network services involved in the pilot (c.f. Fig. A2). Services with an equity index of 5 or higher were slightly more likely to respond to the survey. It is also worth noting that the survey has low representation in Bay of Plenty/Waiariki as many ELS were not eligible at the time.

Figure A1: Survey responses by region

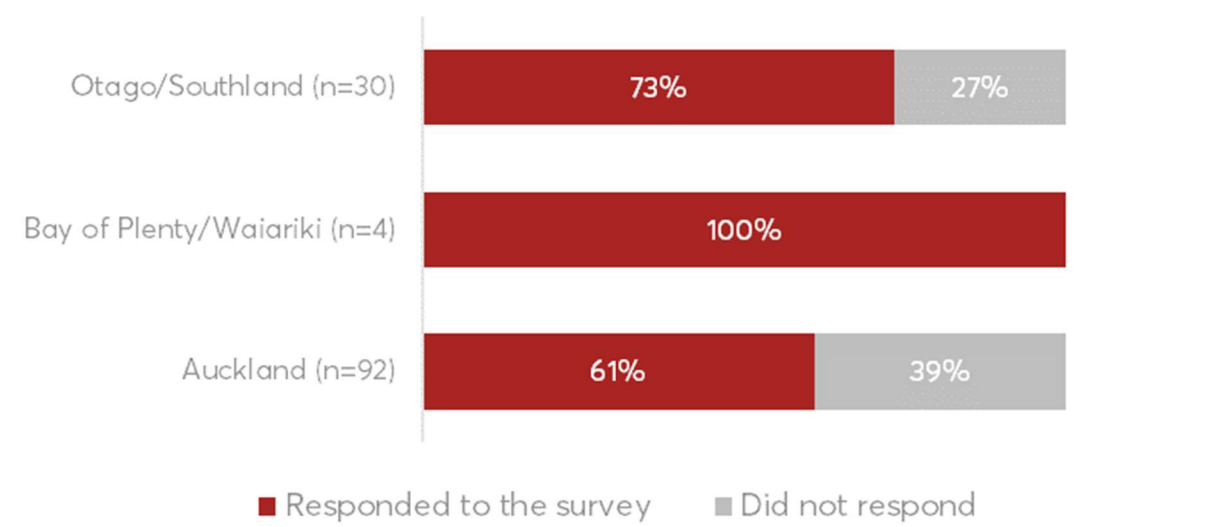
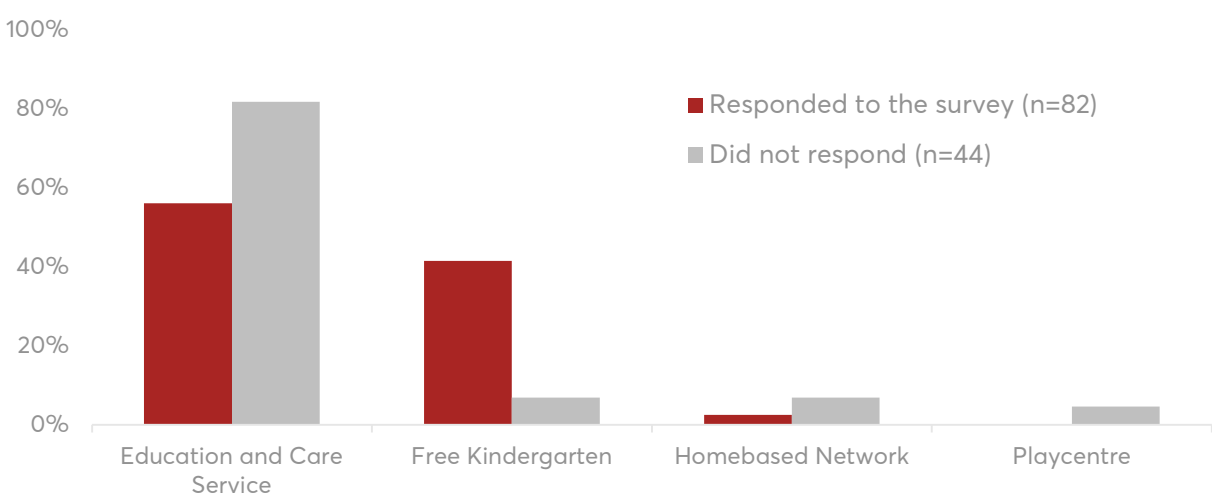


Figure A2: Survey responses by service type



Appendix B

Correlation and regression results

Predictive modelling (multiple linear regression) was performed to investigate which variables have, or did not have, an impact on the outcome of ENGAGE-related practices. The outcome variable, ENGAGE-related practices, was constructed from an average score of the survey responses to survey question six which involved the items below measured on a 6-point frequency scale that ranged from “multiple times a day” to “never”, with higher frequencies being associated with a larger score. Factor analysis was performed on these items to check their suitability as a construct.⁴⁹

A high average score for this construct indicates frequent practice of multiple behaviours associated with the ENGAGE programme. In contrast, a low average score indicates less frequent practices associated with the ENGAGE programme.

Backwards stepwise regression model

Multiple explanatory variables were examined as potential predictors of ENGAGE-related practices. These variables were chosen based on sense-making sessions, theories proposed during the stakeholder interviews and the available data. The explanatory variables that were chosen for the full model were:

- Proportion of qualified kaiako.⁵⁰
- Proportion of attendance in workshops.
- ELS equity index (below 5 vs 5+).
- Months since ELS first workshop (time in the programme).
- Whether the ELS was referred by the Ministry of Education or MMS.
- Estimated time spent playing games prior to the programme in minutes (source survey).⁵¹
- The total number of learners (source: Education Counts).⁵²
- Kindergarten vs non-kindergarten.
- Number of workshops before the survey period (1 or 2).
- Whether the ELS attended a workshop with other centres or not.
- Whether the workshops were involved with online delivery or not.

It is important to understand how each of the variables relate to each other. From the correlation plot below, we observe that the proportion of qualified kaiako, and the presence of multi-centre workshops are both significantly correlated with the outcome variable. Other notable correlations within the predictor variables include a strong correlation between qualified kaiako and kindergartens, Ministry-based referrals, equity index and group workshops; proportion attended is correlated with proportion qualified, equity index and time in the programme; and equity is correlated with the number of learners in the ELS.

⁴⁹ See factor analysis (later in Appendix B)

⁵⁰ Source: Workbook EDK-15195: Ministry of Education. 19 April 2021.

⁵¹ log transformed due to outliers

⁵² log transformed due to outliers

Table B1: Pearson correlation coefficient of regression variables (grey corresponds to negative correlations, red corresponds to positive correlations)

Correlation r values	Engage behaviours	Prop Attended	Prop Qualified	Equity	Time in programme	Referral by MoE	Prev time playing games	# Leaners	Kindergarten	# Workshops	Multi-centre workshop	Zoom involved
Engage behaviours	1	0.18	0.27	0.02	-0.08	0.07	0.21	0.02	0.16	-0.23	0.36	-0.05
Prop Attended		1	0.38	0.25	-0.27	0.11	-0.2	0.07	0.14	0.16	0.13	-0.12
Prop Qualified			1	0.3	-0.15	0.34	0.12	0.08	0.56	0.02	0.45	-0.17
Equity				1	-0.3	0.23	-0.08	0.31	-0.09	-0.09	0	-0.19
Time in programme					1	-0.44	0.12	-0.09	0.1	0.31	-0.02	0.34
Referral by MoE						1	0.05	0.15	0.02	-0.27	0.09	-0.39
Prev time playing games							1	0.08	0.13	-0.09	-0.09	0.08
# Leaners								1	-0.15	-0.11	-0.15	0.02
Kindergarten									1	0.02	0.47	0.23
# Workshops										1	0.03	0.07
Multi-centre workshop											1	0.11
Zoom involved												1

Table B2: Pearson correlation coefficient of regression variables, significance (p-values). Green indicates $\alpha < 0.05$.

Correlation p values	Engage behaviours	Prop Attended	Prop Qualified	Equity	Time in programme	Referral by MoE	Prev time playing games	# Leaners	Kindergarten	# Workshops	Multi-centre workshop	Zoom involved
Engage behaviours		0.118	0.02	0.861	0.515	0.575	0.071	0.837	0.165	0.046	0.002	0.679
Prop Attended			0.001	0.033	0.023	0.339	0.087	0.551	0.248	0.172	0.277	0.313
Prop Qualified				0.011	0.193	0.003	0.297	0.483	0.001	0.868	0.001	0.147
Equity					0.01	0.055	0.522	0.007	0.45	0.455	0.991	0.102
Time in programme						0.001	0.331	0.429	0.381	0.007	0.853	0.004
Referral by MoE							0.7	0.198	0.857	0.02	0.458	0.001
Prev time playing games								0.508	0.289	0.434	0.452	0.513
# Leaners									0.209	0.343	0.203	0.878
Kindergarten										0.871	0.001	0.051
# Workshops											0.8	0.56
Multi-centre workshop												0.353
Zoom involved												

Table B3: Full model: multiple regression results

	Estimate	Std.Error	Statistic	p-value
(Intercept)	2.693	0.867	3.106	0.003
Kindergarten	-0.147	0.249	-0.59	0.558
Prop Attended	0.709	0.416	1.704	0.093
Equity index	-0.05	0.074	-0.683	0.498
% Qualified teachers	0.428	0.788	0.543	0.589
MoE Referral	-0.267	0.24	-1.113	0.27
Time playing games before (log)	0.222	0.083	2.693	0.009
Number of learners (log)	0.108	0.213	0.508	0.613
Time in the programme	0.007	0.03	0.244	0.808
Two workshops before survey	-0.393	0.244	-1.61	0.113
Multi-centre workshop	-0.675	0.223	-3.022	0.004
Zoom involved	-0.207	0.218	-0.947	0.348

Table B4: Reduced model: multiple regression results

	Estimate	Std.Error	Statistic	p-value
(Intercept)	2.975	0.459	6.478	<0.001
Prop Attended	0.693	0.353	1.96	0.054
Time playing games before (log)	0.197	0.074	2.661	0.01
Two workshops before survey	-0.388	0.203	-1.914	0.06
Multi-centre workshop	-0.569	0.174	-3.275	0.002

Table B5: Model comparison, reduced vs full

Model	R squared	Adj R squared	F	p value
Full	0.31	0.18	(11,60)=2.45	0.014
Reduced	0.27	0.22	(4,68)=6.195	< 0.001

The following variables were removed from the full model as they were not statistically significant predictors of ENGAGE related behaviours: if the ELS was a kindergarten, the equity index of the ELS, the proportion of qualified kaiako, whether the ELS was referred by the Ministry or MMS, the number of learners in the ELS, how long the ELS had been in the programme for, whether some of the delivery was done solely online.⁵³

The overall regression for the full model was statistically significant ($\text{Adj } R^2 = 0.18$, $F(11, 60) = 2.45$, $p = 0.014$). The overall regression for the reduced model was also statistically significant ($\text{Adj } R^2 = 0.224$, $F(4, 68) = 6.19$, $p < 0.001$). However, as the reduced model is less complex and has a higher adjusted R^2 value it was selected as the final model.

From the reduced model it was found that two variables significantly predicted the outcome of ENGAGE-related practices ($\alpha = 0.05$), with two variables being close to the cut-off for significance. These were the amount of time the ELS spent playing games before the programme ($\beta = 0.19$, $p = 0.01$), and whether the ELS was involved in a multi centre workshop ($\beta = -0.57$, $p = 0.01$).

Based on the first variable, we can conclude that those who reported more time spent playing games before the programme were predicted to report higher outcomes compared to those who reported less time playing games before the programme.

Furthermore, better outcomes were associated with ELS that participated in a multi-centre workshop, compared to those who completed the training as a single centre. However, this may be as much about the type of centres requesting these workshops; centres with higher proportions of qualified kaiako and kindergartens were more likely to attend single workshops, and these factors were in turn associated with better outcomes.

⁵³ Table A5.

Factor analysis

Factor analysis was used to explore the items (questions) within the ENGAGE survey to explore the potential to combine multiple outcome items so as to increase the reliability of the measure.⁵⁴ Two key components of this survey were measuring kaiako knowledge and practices. Therefore, factor analysis was applied to test if the groups of items were fit to be combined as constructs.

Correlations and exploratory factor analysis

The knowledge questions (question 2 in the questionnaire) were highly correlated (greater than 0.8), meaning they were not fit for factor analysis. This result meant that factor analysis was not applied without excluding the majority of the items. For practices (question 6 in the questionnaire), all correlations were below 0.8 and exploratory and confirmatory factor analysis was applied. Furthermore, results of the Kaiser Meyer Olkin test for saturation (0.85) and Bartlett test (approximate Chi-squared (15) = 255.7, $p < 0.001$) indicated factor analysis was appropriate for question 6. Through exploratory factor analysis it was determined that one factor is likely most appropriate for this group of items. Confirmatory factor analysis – practices

The questions in the survey relating to practices involved six questions with 78 responses after removing missing data. Confirmatory factor analysis was applied to test if these items could be grouped as a singular construct. Tests were performed to measure the goodness of fit. The results are presented in Table A7. The results of confirmatory factor analysis on one factor are acceptable, with RMSEA likely being affected by sample size and data variation. The six items relating to kaiako are therefore fit to be grouped as a construct.

⁵⁴https://www.researchgate.net/publication/221184671_Randomizing_Survey_Question_Order_vs_Grouping_Questions_by_Construct_An_Empirical_Test_of_the_Impact_on_Apparent_Reliabilities_and_Links_to_Related_Constructs

Table B6: Goodness of fit for 1 factor

Metric	Recommended values ⁵⁵	Results
Number of records		78
Number of items		6
Exploratory FA		
Cronbach alpha	≥0.70	0.89
KMO	≥0.60	0.85
Bartlett test	<0.05	<0.001
Confirmatory FA (1 Factor)		
χ^2/df	$0 \leq \chi^2/df \leq 2 = \text{good fit}$ $2 \leq \chi^2/df \leq 3 = \text{acceptable fit}$	$25.9/9 = 2.87$
RMSEA ⁵⁶	<0.08	0.155
CFI	≥0.8	0.933
TLI	≥0.8	0.889
SRMR	<0.08	0.054

⁵⁵ Schermelleh-Engel, Karin & Moosbrugger, Helfried & Müller, Hans. (2003). Evaluating the Fit of Structural Equation Models: Tests of Significance and Descriptive Goodness-of-Fit Measures. *Methods of Psychological Research Online*. 8. 23–74.

⁵⁶ RMSEA is less preferable at smaller sample sizes (Schermelleh-Engel et.al., 2003)

Appendix C

ENGAGE pilot survey of ELS

1. The ENGAGE training and support...

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
was relevant to my role						
was implemented in a way that was culturally enhancing and responsive						
could be flexibly applied within our local curriculum						
could be flexibly integrated with Māori language and tikanga						
sufficient for me to successfully implement ENGAGE in my centre						

2. Following the ENGAGE training and support I have a very good understanding of...

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
how to develop self-regulation through intentional games and activities						

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
how to identify the self-regulation skills being practiced in a particular game or activity						
language that I can use with tamariki to highlight certain self-regulation skills						
how to make games easier or more challenging						
how to integrate the intentional playing of games within other centre activities						

3. Thinking about all kaiako in your centre who work with tamariki 2 years and older; Teaching kaiako at my centre are very confident initiating ENGAGE games and activities in their daily interactions with tamariki

Strongly disagree Disagree Somewhat disagree Somewhat agree Agree Strongly agree

4. Is it feasible for kaiako at your centre to (collectively) deliver 30 minutes a day of ENGAGE games and activities? *

Please choose only one of the following:

- Yes
- No

If no, please tell us a little more _____

5. On average, how many minutes a day does your centre run ENGAGE games or activities (or similar games or activities e.g. ball games, puzzles, mindfulness)? (Please answer in minutes)

Comments (optional): _____

6a. Thinking about all kaiako in your centre who work with tamariki 2 years and older; On average, how frequently do kaiako at your centre...

Please choose the appropriate response for each item:

	Multiple times a day	Daily	Multiple times a week	Weekly	Monthly	Never
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Play games or activities that deliberately aim to improve specific self-regulation skills

Make use of a wide variety of games and activities that focus on self-regulation

Identify a self-regulation skill to focus on before selecting which game/s to play

If practice varies, please select the answer that best represents the average for kaiako working with tamariki 2 and up.

6b. Thinking about all kaiako in your centre who work with tamariki 2 years and older; On average, how frequently do kaiako at your centre...

Please choose the appropriate response for each item:

	Multiple times a day	Daily	Multiple times a week	Weekly	Monthly	Never
--	----------------------------	-------	-----------------------------	--------	---------	-------

Describe the self-regulation skills being practiced in a game (e.g. using the "things you can say" from the ENGAGE cards)

	Multiple times a day	Daily	Multiple times a week	Weekly	Monthly	Never
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Explain to tamariki how the skills they practice in games apply to everyday activities

Consider the developmental level of tamariki, making games easier or harder if needed

If practice varies, please select the answer that best represents the average for kaiako working with tamariki 2 and up.

7. Prior to your first ENGAGE session, on average, how many minutes a day did your centre run games or activities similar to those on the ENGAGE cards (e.g. ball games, puzzles, mindfulness)? (Only numbers may be entered in this field)

- Comment (optional) _____

8. Which term best describes the language used when playing games or running ENGAGE activities with tamariki in your centre: (Please choose all that apply, If practice varies between kaiako working with tamariki 2 and up, please select multiple answers)

- ☐ We don't use any specific language
- ☐ We use the language provided on the ENGAGE cards
- ☐ We developed our own new language to prompt children to think about self-regulation skills
- ☐ Other:

9. Have you utilised any of the following strategies to help embed your ENGAGE practice?

Check all that apply

- ☐ Scheduled games as a regular part of daily routines
- ☐ Talked with whānau about using games to practice self-regulation skills
- ☐ Discussed ENGAGE implementation at staff meetings
- ☐ Attended hui about ENGAGE with other ELS
- ☐ Conducted an internal evaluation focused on ENGAGE
- ☐ Other:

10. Thinking about the training and support you have received, what was most useful, and why?

11. What was not useful and why?

12. What further support do you need to successfully implement ENGAGE strategies in your centre?

13. What is the name of your early learning service?

(Note: the information you provide will not be reported against the name of your ELS. We are collecting this so we can explore how to link this with information about delivery and/or service characteristics to examine if certain types of delivery or ELS characteristics might be associated with experiences of the programme.)

14. How many teaching kaiako in your early learning service work with tamariki 2 years and over?

15. How many of these kaiako have attended at least one ENGAGE workshop?

16. Do you have any other comments you would like to share about the *training or the ENGAGE programme more generally?*

Interview guides

Interview guides for MMS, MMS facilitators, ELS kaiako and Ministry regional staff.

Focus	MMS administrator	MMS facilitators
Introduction	<ol style="list-style-type: none"> 1. Please explain your role in ENGAGE? 2. What changes were made to ENGAGE to adapt this for an ELS context? 3. What steps were taken to integrate ENGAGE alongside Te Whāriki and He Māpuna te Tamaiti? How easy was it to align these? 	<ol style="list-style-type: none"> 1. Could you each introduce yourself and briefly explain your role in ENGAGE?
Recruitment	<ol style="list-style-type: none"> 4. What steps are involved in recruiting potential facilitators? How is this going? How has this differed between regions? Why? <ol style="list-style-type: none"> a. What recruitment approaches might you use in the future? 	
Training (and other delivery) methods	<ol style="list-style-type: none"> 5. What does the training of facilitators involve? (prompt for more detail about each strategy if needed) <ol style="list-style-type: none"> a. How many hours does it take to train a facilitator? 6. What does the training facilitators then deliver to kaiako involve? <ol style="list-style-type: none"> 1. For X method, what was involved? <ol style="list-style-type: none"> a. What were the strengths and weaknesses of this method? b. How many facilitator hours are usually required per Early learning service, or per kaiako? (Including preparation). 	<ol style="list-style-type: none"> 2. We are interested in understanding how training is delivered to kaiako, including unpacking how this may differ from centre to centre. 3. Please describe the different methods you've used for training kaiako? (e.g., online, group vs individual) 4. What factors influence what methods are used and how much time is allocated? 5. For each method, what was involved? <ol style="list-style-type: none"> a. What were the strengths and weaknesses of this method? b. How many facilitator hours are required per Early learning service or

- | | | |
|--------------------|---|--|
| | <ol style="list-style-type: none"> 2. For Y method, what was involved? <ol style="list-style-type: none"> a. What were the strengths and weaknesses of this method? b. How many facilitator hours are required per kaiako? (Including preparation). Are there any other costs? 7. Are any other resources needed to support an ELS to embed ENGAGE? (e.g. training materials, equipment – what is being currently provided and what is needed?) 8. Are there any other activities MMS does to contribute to the delivery of ENGAGE? • | <p>kaiako? (Including preparation).
(how much of your time does it take to run a 2 hour workshop?)</p> |
| Recruitment of ELS | <ol style="list-style-type: none"> 9. What steps were involved in recruiting ELS? What sort of time was required to recruit each ELS? <ol style="list-style-type: none"> a. How effective was the invitation process at recruiting target participants? b. What are the potential barriers to recruitment? c. How do you think we can reduce these barriers? Have you put in place any strategies that have helped increase recruitment? d. Were there any ELS that were invited to implement ENGAGE but decided not to? What reasons, if any, did they give? 10. What was involved in recruiting facilitators? <ol style="list-style-type: none"> c. How effective was recruitment and what are the | |

	potential barriers to recruiting facilitators? Have you identified any strategies to overcome these barriers?	
	11. What requirements and skillsets do MMS facilitators need to have?	
Delivery in ELS	12. What, if any, guidance is given to kaiako about how to embed ENGAGE within the day-to-day running of their centre? 13. What, if any, support or resources are offered to kaiako for them to share with others in their ELS? 14. What steps have you taken to ensure the quality of the delivery of Engage? Do you have any ideas about how this might be done in the future? 15. What, if any, assessments exist about whether kaiako have been adequately trained and are implementing ENGAGE in their daily practice? 16. What skills, knowledge, behaviours or attitudes do you expect kaiako to have at the end of the training in order to implement ENGAGE effectively?	6. What guidance is given to kaiako about how to embed ENGAGE within the day-to-day running of their centre? 7. What skills, knowledge, behaviours or attitudes do you expect kaiako to have at the end of the training in order to deliver Engage well? 8. Are there any contextual factors or existing kaiako skillsets that you think might influence how well ENGAGE is delivered in each ELS? 9. What, if any, assessments exist about whether kaiako have been adequately trained and are implementing ENGAGE daily practice?
Variations to programme/ contextual influences	17. What, if any, steps have you taken to adapt ENGAGE for Māori or Pasifika children, kaiako and their contexts? 1. What steps have you taken to support facilitators to deliver culturally responsive training?	10. What, if any, steps have you taken to adapt ENGAGE for Māori or Pasifika children, kaiako or contexts? 11. How do you support kaiako to adapt or embed the programme in

	18. How do you support kaiako to adapt or embed the programme in their ELS? Can you give me some examples?	their ELS? Can you give me some examples?
	19. How well does the current capacity of the programme fit with expectations for its delivery?	12. Have any changes to the structure of training been used to make training more accessible for kaiako? What do you think are the key barriers to training for kaiako?
Barriers to training	20. What strategies have been used to make training accessible for kaiako?	
Funding and resourcing	21. What opportunities exist to streamline the delivery of ENGAGE? a. What, if any, impact do you think these may have on the quality of kaiako training or delivery in ELS?	13. For each of you, approximately many hours did you spend training to be a facilitator? 14. What existing skills do you have that you've found useful for teaching ENGAGE to kaiako? 15. What opportunities exist to streamline the delivery of ENGAGE? a. What, if any, impact do you think these may have on the quality of kaiako training or delivery in ELS?
	22. How do other stakeholders support the programme? i.e., Ministry of Education, ELS? (Prompt: what resources and time do they provide?)	
Closing	23. Is there anything else you want to share to help us understand your experience and perspectives with the programme (implementation, effectiveness, design, delivery, relevance, and coherence)?	16. Is there anything else you want to share to help us understand your experience and perspectives with the programme (implementation, effectiveness, design, delivery, relevance, and coherence)?

Appendix D

The following measures are designed to assess self-regulation, have been assessed for validity and reliability, and are suitable for children under 5. This is not an exhaustive list of every tool to assess social emotional competencies but it does include the major commonly recommended tools.

Table D1. Measures of social and emotional competencies

Measure	Summary	Other considerations	Reliability information	Time needed	Free?
Behavior Assessment System for Children, Third Edition (BASC – 3)	This can be used to assess self-regulation, and can be grouped into different subscales (e.g. attention, hyperactivity). Parent and teacher report versions are available for this age group. Age 2+	<ul style="list-style-type: none"> - It has been used previously in research on ENGAGE. Differences were noted on the outcomes after 10 weeks. - NB a BASC observation tool exists but this has poorer reliability than the parent and teacher report measures. - Already included in the ENGAGE RCT <i>Kia Timata Pai</i>. 	<ul style="list-style-type: none"> - Good internal consistency (80+). Good test-retest reliability (mid 80's to mid 90's). - Mixed inter-rater reliability (.18 to .82)⁵⁷ 	109 items (approx. 30 minutes)	No
BASC 3 TRS short form (also known as the BASC-3 Behavioural and Emotional Screening System Teacher form)	This is a screening tool developed from the larger BASC and used by teachers.	<ul style="list-style-type: none"> - This appears to be also used in the Plunket b4 school check, but the data is not captured in the IDI and it is not known what the completion rates are for this measure. 	Excellent internal consistency (.96) and good test retest reliability (.80) in a preschool sample. ⁵⁸	25 items (approx. 5-10 minutes)	No

⁵⁷ TestReview: Reynolds, C. R., & Kamphaus, R. W. (2004). Behavior assessment system for children (2nd ed.). Circle Pines, MN: American Guidance Service.

⁵⁸ Yanosky DJ, Schwanenflugel PJ, Kamphaus RW. Psychometric Properties of a Proposed Short Form of the BASC Teacher Rating Scale–Preschool. *Journal of Psychoeducational Assessment*. 2013;31(4):351-362. doi:10.1177/0734282912456969

Strengths and Difficulties Questionnaire (SDQ)	<p>This can be used to assess self-regulation, and can be grouped into different subscales.</p> <p>Parent and teacher report versions are available for this age group.</p> <p>Age 2+</p>	<ul style="list-style-type: none"> - This is being used as part of the Plunket B4 School Check. It is comprehensive and ELS are already familiar with it. - It has been used previously in an evaluation of ENGAGE within schools in South Auckland. - It may have limited acceptability to teachers; one New Zealand study noted that 48% of the teacher completed-SDQ results in the Plunket B4 school check have declined, non-applicable or missing outcomes.⁵⁹ - Already included in the ENGAGE RCT <i>Kia Tīmata Pai</i>. 	<ul style="list-style-type: none"> - Adequate to good test-retest reliability (range from 0.57 to 0.82). Test retest reliability was higher among Teacher reports (.65-.80) - Adequate to good internal consistency (0.88 to 0.57). The internal consistency is higher for teacher reports. - Poor to adequate inter-rater reliability between parent and teacher reports Spearman inter-rater correlations ranged from 0.25 to 0.48 (Goodman, 2001). 60 	25 items (approx. 5-10 minutes)	Yes
Social skills improvement system	<p>There are seven subscores: Self-awareness, Self-management, Social awareness, Relationship skills, Responsible decision making, Academic skills and Core skills.</p> <p>Age 3+</p>	<ul style="list-style-type: none"> - Parent and teacher report versions are available for this age group. 	<ul style="list-style-type: none"> - The internal consistency was good 0.93.61 - Test-retest reliability was good 0.89. 	83 items (Approximately 15-20 minutes)	No

⁵⁹ Richards,N., Reith, D., Stitely, M., & Smith, A. (2019). NZMJ, 132, No 1496

⁶⁰ Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. Journal of the American Academy of Child and Adolescent Psychiatry. 4, 11, pp.1337-1345.

⁶¹ Gresham, F. M., & Elliott, S. N. (2008). Social skills improvement system: Rating scales. Bloomington, MN: Pearson Assessments.

Tests of neuro-psychological functioning e.g. NEPSY-II, tests of comprehension, design-copying, working memory	A number of tools exist that score children's behaviour on specific tasks designed to test aspects of cognitive self-regulation	<ul style="list-style-type: none"> - Typically focus on a competent of self-regulation/social and emotional competencies - Can involve expensive licencing - Typically administered by psychologists/clinicians. - Objective measures of specific aspects of self-regulation - 	- Varies	Varies e.g. NEPSY- II can take 45-90 minutes per child ⁶²	No
Head-Toes-Knees-Shoulders (HTKS) and a revised HTKS-R	<p>This tool aims to measure behavioural self-regulation (capturing aspects of attention, working memory and inhibitory control). ⁶³ Children are asked to respond to requests A (e.g., "touch your head" and "touch your toes") by touching a different part of their body.</p> <p>Ages 3/4+</p>	<ul style="list-style-type: none"> - Recommended age 4-8 (or 3-7 for the HTKS-R) - Focuses on a narrow aspect of self-regulation (behavioural self-regulation) - Relatively objective measure - Could be implemented by an external party - Predictive of later behaviour-regulation (rated on a validated measure) - Available for research only - Scores correlated with classroom achievement and parent and teacher reports of behaviour self-regulation - Already included in the ENGAGE RCT. 	- Authors argue this has good internal reliability	5-7 minutes	Yes
Day night stroop task	Assessment of inhibitory control in which children are asked to say	<ul style="list-style-type: none"> - The HTKS seems to be the preferred alternative by many researchers. 	Unknown	Unknown	Unknown

⁶² Korman, M., Kirk, U., & Kemp, S.(2007). *NEPSY second edition*. <https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Academic-Learning/Brief/NEPSY-%7C-Second-Edition/p/100000584.html>

⁶³ Ponitz, C. C., McClelland, M. M., Matthews, J. S., & Morrison, F. J. (2009). A structured observation of behavioral self-regulation and its contribution to kindergarten outcomes. *Developmental Psychology*, 45(3), 605–619. <https://doi.org/10.1037/a0015365>

the opposite (e.g. "day" for a
moon, "night" for a sun)

Age 3+



Helping
people
access and
use quality
evidence



DRAFT REPORT
THE ALERT PROGRAM® IN EARLY
LEARNING SERVICES PILOT
Process evaluation



6 October 2022

Authorship

Standard of Proof was created out of passion. Passion for making a difference, for making the lives of individuals, communities and organisations better through evidence. We pride ourselves on providing the highest standard of evidence that is appropriate and useful for the context.

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The authors of this report include Dr Jennifer Long, Kirsty Lennox, Beau Jarvis-Child and Sira Engelbertz.

We work with our partners and clients to ensure the right data and the right insight are brought to every project. For this evaluation, we've worked with the Ministry of Education and our partners, supported by Sue Yates (proofreader).

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EXECUTIVE SUMMARY

The Alert Program® uses vocabulary and sensory strategies to build children's capacity to identify, maintain and regulate their level of alertness so that it is appropriate for the current task and environment.¹ This programme was originally developed by two occupational therapists in the United States, and has been piloted in two New Zealand primary schools.

The Ministry of Education is now adapting and testing the Alert Program® – *the pilot* – in early learning settings. Between late 2021 and June 2022, occupational therapists were employed by the Ministry of Education to both adapt and deliver the Alert Program® to early learning service kaiako in Otago/Southland, Auckland, Wellington and Manawātū. Delivery coincided with the re-emergence of COVID-19 in New Zealand, creating challenges for early learning services, and the delivery of the pilot, including necessitating online delivery of some of the content.

Te Tāhuhu o Te Mātauranga, the Ministry of Education, commissioned Standard of Proof to undertake a process evaluation of this pilot. The evaluation set out to examine the integration and tailoring of the programme for early learning services (ELS) in New Zealand, support for kaiako knowledge and practices and how the programme could be further sustained or scaled. Our key objective was to collect information that would be relevant for future programme implementation, and as such, the key audience for the report is the Ministry of Education planning and implementation teams.

Evidence was collected during March to June 2022 through interviews with key stakeholders, secondary data and documents, and a survey of kaiako. The data was collected and synthesised to consider the relevance, effectiveness and scalability of the pilot. This evidence was used to answer seven key evaluation questions (KEQs).

KEQ1 and KEQ2: How, and how well, has the Alert Program® been adapted for the New Zealand early learning services context and been delivered/integrated into early learning settings?

Adaptation of the programme for New Zealand early learning settings drew on the official Alert Program® content and adaptations that had been made previously in New Zealand, albeit in primary school environments. Workshop content evolved over the course of the pilot. Occupational Therapist (OTs) worked with individual services to adapt the programme further to their local context. Most centres made adaptations (with support from OTs) to make the programme content relevant to the age group of their tamariki.

The Alert Program® was able to be implemented by kaiako in early learning services. It was found to be adaptable to local curriculums as well as aligned with existing curriculums, including Te Whāriki and He Māpuna te Tamaiti.

¹ Williams, M. S., & Shellenberger, S. (1996). *"How does your engine run?"®: A leader's guide to the Alert Program® for self-regulation*. Albuquerque, NM: TherapyWorks, Inc.

Adaption of the Alert Program® for this pilot involved identification of the components of the wider Alert Program® that would be relevant to the development stage of children in early learning settings. At the outset it was identified that role modelling, co-regulation, developing language and building understanding among the older preschool children would be the key focus for the pilot. Kaiako supported both younger and older children with sensory strategies (e.g. using music to increase or decrease energy levels) through co-regulation. Kaiako reported that they frequently used the Alert Program® and engine analogy as part of their own role modelling, conversations with children or formal teaching, and there were reports of four-year-olds and some younger children grasping these concepts.

Most survey respondents believed OT delivery of the Alert Program® was presented in a way that was culturally responsive and thus could be integrated with te reo Māori and tikanga. Around half of the survey respondents adapted the sensory tools to the culture of tamariki. Less than a quarter of respondents integrated te reo Māori. Further work could be done to integrate a cultural lens within the programme. Cultural adaptations at a centre level are possible but rely on centres having expertise in this area.

The Alert Program® in this age group focuses on co-regulation with adults. Potential benefits of the Alert Program® for a preschool age group are more likely to extend to whānau, homes and schools if adults in these settings are also upskilled in the Alert Program.

KEQ3: How, and how well, has the adaptation of the Alert Program® been integrated into Ministry service delivery as part of universal supports (ways of delivering service, relevance alongside other work, capacity)?

Regional managers, Early Intervention Teachers (EITs), Speech and Language Therapists (SLTs) and other Ministry staff supported OTs with early learning service recruitment, relationship development and knowledge about working in the early learning sector, in some cases engaging in collaborative delivery. EITs and SLTs also drew on Alert Program® language and strategies within their support for individual tamariki in those centres or planned to do so in the future. This evaluation found that whilst OTs are necessary for future delivery, EITs and SLTs could provide additional support for embedding and sustaining the Alert Program® in services.

KEQ4: To what extent, and how, has the pilot supported building knowledge and practices in the area of social and emotional learning within early learning services?

Kaiako developed knowledge about the Alert Program® and reported improved understanding of the behaviour and social and emotional needs of tamariki. The Alert Program® enabled kaiako to understand what sensory or support strategies were most appropriate for each child on an individual basis. Most kaiako who responded to the survey reported employing practices taught within The Alert Program® on a weekly basis, and nearly half were using some of these strategies daily.

Some of the strategies from the Alert Program® (e.g. role modelling, sensory tools and physiological awareness) were already being used to teach self-regulation by some services. Interview feedback suggested that in such centres the pilot had developed a more nuanced and intentional approach to talking with tamariki around feelings and supporting them to manage their arousal levels.

KEQ5: What would be required to set up and implement the Alert Program® as part of universal supports (Ministry and specialist staff capacity, coverage) and to sustain knowledge locally (support needs)?

During the pilot, the Alert Program® training was offered for all kaiako and more intensive support was provided to specific 'champions' in each centre. This model had advantages for programme uptake and sustainability and presents options that allow services to choose what is most feasible for them at the time. This was particularly important given teacher supply challenges related to COVID-19, and the impact upon teacher-to-student ratios.

The combination of learning activities was well received in each early learning service, as was the co-design of programme delivery. This pilot was the first time these sessions had been offered for services. Stakeholders identified that in future it would be useful to have greater clarity around the programme delivery structure and objectives of sessions, and some would have liked more guidance about how the Alert Program® could be best implemented in their centre. The pilot also identified opportunities to improve the process for accessing and trialling sensory tools such as providing options for services to borrow tools before deciding which to purchase. The funding to purchase sensory resources was valued by kaiako.

Three-quarters of survey respondents reported that the times required for the OT-provided training was feasible. However during the interviews some concerns were raised about how information heavy the Alert Program® is and the challenge to fit it into existing workloads, time constraints and prior commitments.

Kaiako were the focus for this initial pilot, although some centres had communicated with whānau about the basics of the Alert Program®. To extend the concepts of the Alert Program® into homes, whānau involvement and knowledge will be important.

This evaluation found that follow-up support is important for embedding and sustaining the Alert Program® within early learning services. To help increase kaiako knowledge and development, OTs are essential to future delivery of the Alert Program® in early learning services. Collaboration with EITs and SLTs would also be a potential area to utilise to aid sustainability of Alert.

KEQ6: How, and how well, have the cluster approach and networks around the early learning service worked collaboratively to deliver the pilot?

Working with a kāhui ako or a group of centres under the same management umbrella supported more straightforward recruitment of centres at the commencement of the Alert Program® in early learning services pilot. Improving the cluster approach has the potential to support collaborative learning, contingent on centres having the time and mechanisms to engage in this.

KEQ7: Which assessments and measurement approaches are appropriate and feasible for an impact evaluation?

There was interest among kaiako to assess the impact of the Alert Program®, although time constraints were noted. An impact evaluation could provide important information about the benefits of the Alert Program® in a preschool setting as most previous research has focused on one-to-one interventions in older children with sensory

difficulties. In designing an impact evaluation, it will be important to clarify the expected outcomes of the Alert Program® in this age group. Formal self-regulation assessments, such as the BASC-3, can provide validated measures of change in self-regulation and would ideally be used within a waitlist-control design as some improvements in these skills are expected during preschool years.

INTRODUCTION

The New Zealand Government prioritises social and emotional learning as key to wellbeing.

Social inclusion goals seek to improve the conditions under which individuals and groups take part in society such as by improving skills that support participation and reduce discrimination.² Social inclusion is at the core of the United Nation's 2030 Agenda for Sustainable Development. It has also become a priority for several national and multinational political agendas over the last few decades, including the European Union, the United Kingdom and Australia. The Christchurch terror attack in 2019 prompted a stronger government focus on improving social cohesion and inclusion of New Zealand's diverse communities. In addition, since 2020, social distancing and lockdowns in response to the COVID-19 pandemic have created a social crisis and exacerbated social exclusion – particularly for vulnerable populations,³ while taking a toll on mental health, including that of children and adolescents.⁴

Social and emotional learning is recognised in the Child and Youth Wellbeing Strategy as a key contributor towards a socially cohesive society.⁵ Social and emotional learning and in particular early self-regulation are well established predictors of health and success in adulthood.⁶ To support long-term social inclusion and cohesion the Government is seeking to strengthen social and emotional learning (SEL) in an early childhood setting.⁷

The early childhood setting is considered a key opportunity to teach self-regulation skills. Self-control measured at age 3-5 predicts health and success in adulthood.⁸ Many children make rapid gains in self-regulation during this time; however progress is not universal. These gains are important as self-regulation skills are expected to support children's functioning and capacity for learning in school settings.⁹ Thus teaching social and emotional skills, including self-regulation, from an early age can contribute to

2 Based on The World Bank's definition of social inclusion (retrieved from <https://www.worldbank.org/en/topic/social-inclusion#1>). This definition has also been used by the NZ Ministry of Social Development in their rapid evidence review on [Social inclusion in New Zealand \(May 2020\)](#).

3 The United Nations refer to the pandemic not just as a health crisis but also as a "human, economic and social crisis" (retrieved from <https://www.un.org/development/desa/dspd/everyone-included-covid-19.html>).

4 Panchal, U., Salazar de Pablo, G., Franco, M., Moreno, C., Parellada, M., Arango, C., & Fusar-Poli, P. (2021). The impact of COVID-19 lockdown on child and adolescent mental health: systematic review. *European child & adolescent psychiatry*, 1-27. <https://doi.org/10.1007/s00787-021-01856->.

5 Department of the Prime Minister and Cabinet. (2019). *Child and Youth Wellbeing Strategy*.

<https://www.childyouthwellbeing.govt.nz/resources/child-and-youth-wellbeing-strategy#foreword-minister-for-child-poverty-reduction>

6 E.g. Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., ... & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the national Academy of Sciences*, 108(7), 2693-2698. <https://doi.org/10.1073/pnas.1010076108>.

7 Department of the Prime Minister and Cabinet. (2020). *Continuing Action to Improve Social Inclusion (CAB-20-SUB-0513 refers)*. <https://dpmc.govt.nz/sites/default/files/2020-12/CAB-20-SUB-0513-continuing-action-to-improve-social-inclusion.pdf>.

8 E.g. Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., ... & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the national Academy of Sciences*, 108(7), 2693-2698. <https://doi.org/10.1073/pnas.1010076108>.

9 Montroy, J. J., Bowles, R. P., Skibbe, L. E., McClelland, M. M., & Morrison, F. J. (2016). The development of self-regulation across early childhood. *Developmental Psychology*, 52(11), 1744-1762. <https://doi.org/10.1037/dev0000159>.

increased engagement in learning and positive relationships in both the short and long term.

In response, the New Zealand Government is investing in initiatives to improve social inclusion in New Zealand, including a trial to support young children in early learning services to develop capacities for self-regulation, resilience and social skills.^{10 11 12} Te Tāhuhu o te Mātauranga, The Ministry of Education (hereafter the Ministry) is piloting the Alert Program® as one of three programmes aimed at strengthening social emotional learning (SEL) in early learning settings.^{13 14}

The Alert Program® is being adapted to the New Zealand early learning context.

The Ministry has adopted - an evidence-based programme – the Alert Program® to support kaiako, by providing strategies and resources based on sensory integration principles intended to strengthen self-regulation. The Alert Program® was developed by two occupational therapists in the United States and is supported by an international peer-reviewed evidence base for individuals with self-regulation challenges.¹⁵ The Alert Program® was originally developed for children with high sensory needs or associated development needs but has also been used in a range of settings with typical developing children.

The Alert Program® uses vocabulary and sensory strategies to build children's capacity to identify, maintain and regulate their degree of "alertness" to match the task or environment at hand.¹⁶ At the core of the programme is the analogy of a car engine, which can run at different speeds: low, high and just right. The programme seeks to develop competencies over three stages: 1) identifying engine/Alert Program® speeds, 2) testing out methods to change engine/Alert Program® speeds, and 3) regulating engine/Alert Program® speeds. The pilot of the Alert Program® in early learning services has drawn on these core principles, adapting the language and strategies to be more developmentally appropriate where needed.

The Alert Program® has been previously piloted through a collaboration between the Ministries of Health and Education and two primary schools in the Wellington region. The Alert Program® was initially piloted using a school-wide approach and later a tiered approach.

The Ministry of Education is now working with occupational therapists and kaiako to adapt this programme as part of universal supports within the New Zealand early

10 Department of the Prime Minister and Cabinet. (2020). *Continuing Action to Improve Social Inclusion (CAB-20-SUB-0513 refers)*. <https://dpmc.govt.nz/sites/default/files/2020-12/CAB-20-SUB-0513-continuing-action-to-improve-social-inclusion.pdf>.

11 MoE: Briefing to the Minister.

12 Project Plan of Ministry of Education: Social and emotional learning in the early years: Adapting the Alert Program® for all tamariki.

13 Ministry of Education briefing note: *Strengthening social and emotional learning in early years settings to support social cohesion*, 22 April 2021.

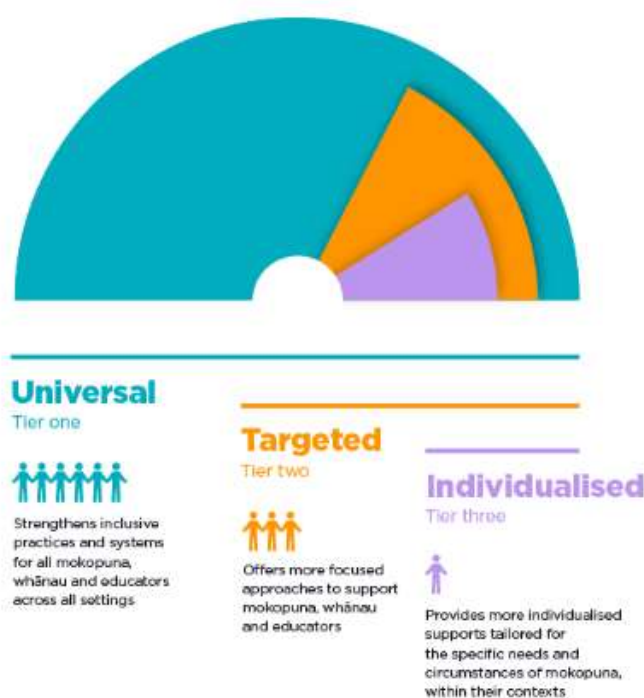
14 A description and process evaluation of the other two programmes, ENGAGE and Incredible Beginnings, are outlined in separate evaluation reports.

15 Gill, K., Thompson-Hodgetts, S., & Rasmussen, C. (2018). *A critical review of research on the Alert Program*. *Journal of Occupational Therapy, Schools, & Early Intervention*, 11(2), 212-228. <https://doi.org/10.1080/19411243.2018.1432445>.

16 Williams, M. S., & Shellenberger, S. (1996). *"How does your engine run?"®: A leader's guide to the Alert Program® for self-regulation*. Albuquerque, NM: TherapyWorks, Inc.

learning services (see Figure 1).¹⁷ The adaptation of the Alert Program® – the *pilot* – seeks to test a model of integrating social and emotional learning into the curriculum in the early years setting. Within the adapted programme, kaiako receive training and support to embed Alert Program® practices within their service.

Figure 1: Overview of universal, targeted and individualised supports (based on the Ministry of Education and Resource Teachers: Learning and Behaviour (RTL) joint practice framework [He Pikorua](#))



It is expected that embedding Alert Program® language and strategies within early learning service environments will improve the ability of tamariki to self-regulate and improve their wellbeing. The integration of such Alert Program® practices in daily routines and teaching is also intended to link with the local curriculum, the Ministry resource *He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning*¹⁸ and *Te Whāriki: He whāriki mātauranga mō ngā mokopuna o Aotearoa* (the early childhood education curriculum pathway).¹⁹

Four regions were identified for the pilot rollout. Each regional office employed an OT at .5 FTE to deliver the programme to around 15 ELS. Initial setup of the pilot started in mid-2021, and delivery of the programme in ELS started in most regions in late 2021 or early 2022. Some of the OTs were external appointments, and others were recruited or seconded from other internal teams. Part of the role of the OTs was the adaptation of the Alert Program® for the New Zealand context and the under-5s age group.

¹⁷ Project Plan of Ministry of Education: Social and emotional learning in the early years: Adapting the Alert Program® for all tamariki.

¹⁸ Ministry of Education. (2019). *He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning*. Cognition Education for the New Zealand Ministry of Education. <https://tewhariki.s3.ap-southeast-2.amazonaws.com/public/Teaching-strategies-and-resources/Files/He-Mapuna-te-Tamaiti-book.pdf>.

¹⁹ Ministry of Education. (2017). *Te Whāriki He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum*. Wellington, Ministry of Education. <https://assets.education.govt.nz/public/Documents/Early-Childhood/Te-Whariki-Early-Childhood-Curriculum-ENG-Web.pdf>.

Adaptations happened in two stages; OTs selected and adapted content to deliver to ELS and then collaborated with individual centres to adapt the language and activities further for each local context.

Occupational therapists delivered the following activities to kaiako involved in each ELS involved in the pilot:

- Training sessions on Alert Program® theory, language and strategies.
- Educational resources and readings.
- Role-modelling the delivery of activities and/or conversations with tamariki.
- Observing centre practise and collaborating on ways to adapt practice.
- Informing services about different types of sensory strategies.
- Conducting a sensory audit of existing sensory resources and advising on additional resources to purchase.
- Problem solving support.

OT delivery was provided either in person or through online training sessions.

The evaluation

The evaluation was commissioned to help the Ministry understand how the Alert Program® was implemented, and whether the programme was relevant, effective (in these early stages) and scalable in the early learning sector.

This evaluation will focus on the pilot (not the Alert Program®) within ELS in the New Zealand context, and will:

- provide insights into how early learning services and the Ministry worked together on the pilot, from planning and adaptation to delivery.²⁰
- assess the implementation of the pilot to inform any future programme scale-up and rollout, including providing insights and recommendations about the effectiveness of implementation of the pilot, and identification of barriers and enablers to future implementation and expansion.
- assess the influence that the pilot strategies and approach have on kaiako and staff in early learning services.
- assess the implementation of the pilot to inform any future programme scale-up and rollout, including providing insights and recommendations about the effectiveness of implementation of the pilot, and identification of barriers and enablers to future implementation and expansion.
- provide insights into how early learning services and the Ministry worked together on the pilot, from planning and adaptation to delivery.²¹

The key questions consider the relative maturity of the pilot. The Alert Program® is being adapted and adopted as a pilot, and therefore the evaluation focus primarily on understanding design and implementation within the New Zealand context. Key evaluation questions (KEQs) that the evaluation sets out to answer are listed below.

²⁰ MoE: EDK Commissioning template.

²¹ Education Counts. (2021) *ECE Services and Staffing*. <https://www.educationcounts.govt.nz/statistics>.



Key evaluation questions (KEQs)

1. How, and how well, has the Alert Program® been **adapted for the New Zealand early learning services context** (Te Tiriti o Waitangi obligations, tamariki age and developmental considerations, diversity of the ELS sector)?
2. How, and how well, has the Alert Program® been delivered/**integrated into the ELS environments** (kaiako routines and capacity, ways of delivering service, culturally responsive practices, local curriculum design – Te Whāriki and curriculum resources – He Māpuna te Tamaiti)?
3. How, and how well, has the adaptation of the Alert Program® been **integrated into Ministry service delivery as part of universal supports** (ways of delivering service, relevance alongside other work, capacity)?
4. To what extent, and how, has the pilot supported **building knowledge and practices** in the area of social and emotional learning within the ELS?
5. What would be required to set up and implement the Alert Program® as part of universal supports (Ministry and specialist staff capacity, coverage) and to sustain knowledge locally (support needs)?
6. How, and how well, have the cluster approach and networks around the ELS **worked collaboratively** to deliver the pilot (e.g. sharing data and knowledge, working together and facilitation)?
7. Which assessments and measurement approaches are appropriate and **feasible for an impact evaluation**, building upon the Ministry's continuous improvement approach and utilising existing information collecting practices by kaiako in early learning (e.g. learning stories, collecting whānau voice)?

CONTEXT



Putting things in perspective

Early learning services in New Zealand are diverse.

New Zealand's early learning services are diverse and include education and care services (such as crèches, preschools and childcare centres, and include services with different philosophies – Montessori and Steiner), kindergartens, ngā kōhanga reo, playcentres, home-based early learning services, hospital-based services and playgroups. Early learning services can be run by community or private providers.²² The table below highlights the diversity of ELS, showing the numbers of different licenced early childhood education services (n=5,401), teaching staff (n=30,476) and enrolments in 2020 (n=20,287). Early learning services, regardless of ownership, must be inclusive and meet the same standards set out in the regulations of the Ministry of Education and the Education Review Office.²³

Table 1: 2020 statistics about early childhood education in New Zealand ²⁴

	Licenced services	Teaching staff	Enrolments
Education & care	2,701	25,500	130,908
Kindergarten	661	4,121	27,483
Casual education & care	7	19	
Correspondence school	1	8	333
Home-based	424	757	15,022
Hospital-based	20	71	
Kōhanga reo	444		8,334
Playcentre	404		8,268
Playgroup	739		12,528
Licence-exempt kōhanga reo	0		0
Licence-exempt playcentres	19		271
Ngā Puna Kōhungahunga	30		243
Pacific Island early learning groups	20		156
Playgroups – general	670		11,858
Grand total	5,401	30,476	202,876

There is a need for ELS professional development opportunities on social and emotional learning.

The tamariki within these ELS are diverse and we know there are significant needs among this population. For example, using the Strengths and Difficulties Questionnaire

²² Education Counts. (2021). *ECE Services and Staffing*. <https://www.educationcounts.govt.nz/statistics>.

²³ Kōrero Mātauranga. (2019). *He taonga te tamaiti. Every child a taonga: Early learning action plan 2019–29*. Ministry of Education. <https://conversation.education.govt.nz/conversations/early-learning-strategic-plan/>.

²⁴ Education counts. (2021). *ECE Services and Staffing*. <https://www.educationcounts.govt.nz/statistics>.

(SDQ), a psychological adjustment screening questionnaire, the Ministry of Health reported²⁵ that about 8% of children aged 3 to 14 years old experience significant self-regulation difficulties (an estimated 57,000 children). The prevalence and nature of difficulties differs across subgroups,²⁶ and relevant to ELS, the rates of concerning total difficulties were higher for those aged 3 to 4 years – amounting to 10.2% of this population.

Although these needs exist, there are no sustained, centralised services of professional learning and development (PLD) in social and emotional learning available for kaiako, and PLD in ELS is provided on a sporadic and ad-hoc basis.²⁷

Guidance around social emotional learning is provided within Te Whāriki, the New Zealand Early Learning Education curriculum, and He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning. Te Whāriki aims to develop children's mind, body and spirituality within holistic perspectives and promote emotional competence including supporting children to understand, express, and regulate their emotions; helping children build resilience and a sense of self-worth; and providing positive guidance during heightened emotions.^{28 29} He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning focuses explicitly on guidance for developing social and emotional competence within early learning services. The resource includes practical guidance and a self-assessment tool.

The timeframe of the pilot (and the evaluation) was short and disrupted by COVID-19.

The overall delivery time for the pilot was relatively short (approximately 6–9 months) and implementation was hampered by the re-emergence of COVID-19. The re-emergence coincided with attempts to recruit ELS in Wellington, and only one ELS from this region participated in the pilot. In other regions disruptions from COVID-19 took the form of cancelled and delayed sessions, which also led to long delays between sessions in some instances.

COVID-19 also reduced opportunities for face-to-face visits and placed additional time demands on kaiako working in ELS. Further, some services experienced high staff turnover, leading to the need to train new staff within the pilot period. In Auckland, in particular, an inability to visit services face to face due to COVID-19 restrictions necessitated that a large amount of delivery be conducted online.

²⁵ McKernan, S. (2018). *Social, Emotional and Behavioural Difficulties in New Zealand Children: Technical Report*. Wellington: Ministry of Health. <https://www.health.govt.nz/system/files/documents/publications/social-emotional-behavioural-difficulties-nz-children-technical-report-may18.docx>.

²⁶ When comparing select groups across the age groups, Māori ākonga were 1.79 times more likely than non-Māori ākonga to have a concerning difficulties score; and those living in areas of high socioeconomic deprivation areas were three times more likely to have concerning scores.

²⁷ Ministry of Education Briefing Note *Strengthening social and emotional learning in early years settings to support social cohesion*, 22 April 2021.

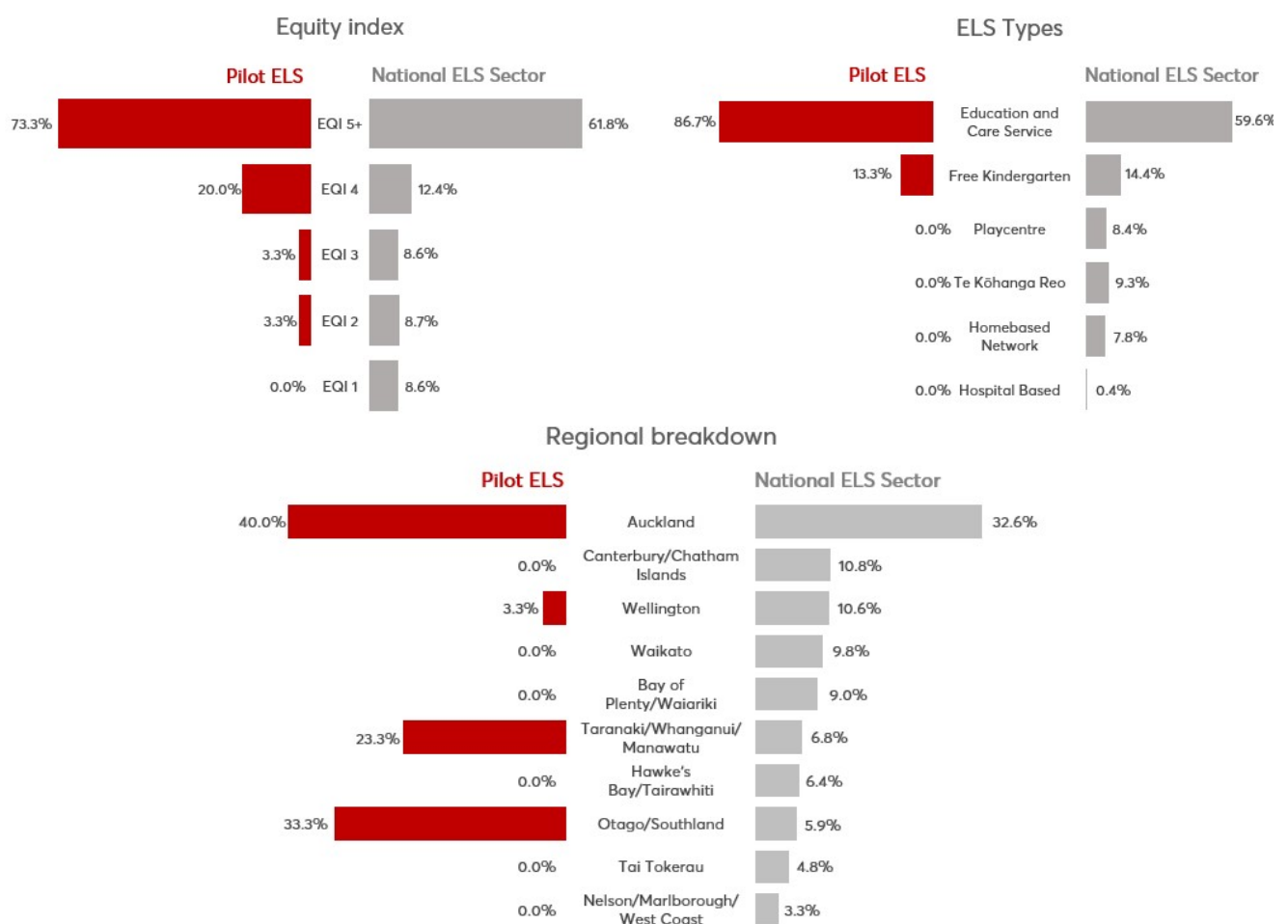
²⁸ Ministry of Education. (2019). *He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning*. Cognition Education for the New Zealand Ministry of Education. <https://tewhariki.s3.ap-southeast-2.amazonaws.com/public/Teaching-strategies-and-resources/Files/He-Mapuna-te-Tamaiti-book.pdf>.

²⁹ Ministry of Education. (2017). *Te Whāriki He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum*. Wellington, Ministry of Education. <https://assets.education.govt.nz/public/Documents/Early-Childhood/Te-Whariki-Early-Childhood-Curriculum-ENG-Web.pdf>.

Pilot ELS were broadly representative of the types of services in the ELS sector.

The pilot was rolled out in four regions: Auckland, Manawātū, Otago/Southland and Wellington. The number of services involved varied by region: Auckland (12), Manawātū (7),³⁰ Otago/Southland (10) and Wellington (1).³¹ Recruitment worked with groups of services where possible to improve efficiencies and create opportunities for collaboration. Nonetheless, it is useful to understand where the Alert Program® pilot has been tested in terms of assessing the generalisability of the evaluation findings. Most services recruited to the pilot were education and care services. Free kindergartens made up the other centres involved in the pilot. Playcentres, kohanga reo, home-based networks or hospital-based services were not involved in the pilot. Around a quarter of services participating in the pilot were equity 1-4 services (see Figure 2). The proportion of Māori tamariki attending the pilot services was 18%, compared to 24% in the overall ELS sector.

Figure 2: Equity index, ELS type and regional breakdown of ELS in the Alert Program® pilot in ELS, and the national ELS sector



³⁰ Originally eight, one centre closed during the pilot period.

³¹ This service is included in the survey results but is not graphed in regional breakdowns because there was just the one service in this region. The case studies also came from the other three regions, in part as the Wellington service started relatively late during the pilot.

EVIDENCE QUALITY OVERVIEW



Purpose

The purpose of the evaluation is to support continuous improvement and determine what is working and what needs to change to support the success of the programme. The evaluation will also provide evidence for accountability purposes, assessing the (non-monetary) value of the programme for the New Zealand education sector.

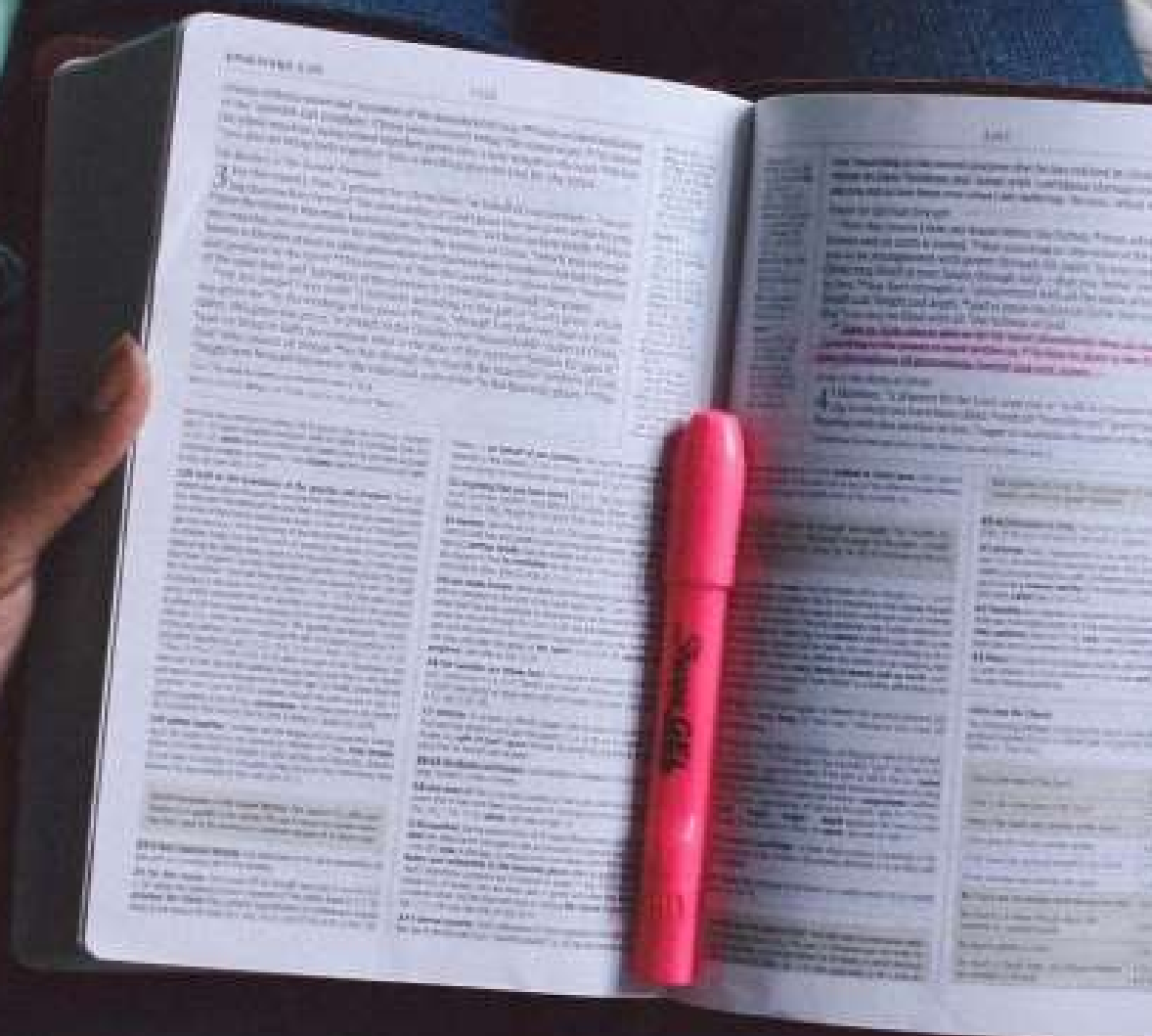
Evaluation methods

This process evaluation used a mix of qualitative and quantitative methods to answer the evaluation questions. We engaged with individuals across all roles involved in the design and implementation of the Alert Program® training. We used different methods with the individuals, allowing the evaluation team to test theories and triangulate evidence. The process included:

- **case studies** focused on three early learning centres (n=18 interviews), gaining an in-depth understanding of the training and attempts to apply the programme within the ELS, and examining the collaboration between the OT, Ministry speech and language therapist or early intervention therapist, centre kaiako and others involved in delivery of the Alert Program® pilot. Interviews were conducted with the relevant Ministry regional staff, the occupational therapist, an early intervention teacher or speech and language therapist and the ELS kaiako relevant to each case. Interviews occurred from March to early May.
- a **kaiako survey** focused on those participating in the training programme to gain a wider range of experiences in the Alert Program® training and implementation (n=73 respondents). This survey was conducted in late May and early June. Further details on the survey method are provided in Appendix A.
- document review of the Alert Program® leader's manual and a selection of programme delivery resources.
- a **sense-making session** with Ministry stakeholders, including the occupational therapists who delivered the pilot, providing an opportunity to share and test the validity of the emerging findings and inform the next steps.

To answer the seven KEQs, data was triangulated to test and validate our judgements. Further information on methods used for this evaluation are included in Appendix A.

FINDINGS



Evidence quality

For this context, the evaluation collated evidence to the following standards.

Table 2: Evidence quality for each data source

	Case studies	Survey	Document review
	18 interviews within 3 ELS and 3 regions of 30 ELS involved in the programme	73 kaiako of approx. 155 kaiako enrolled	11 documents of 30+ programme resources
Are there sufficient numbers of data to compare groups (i.e. power/saturation)?	Data are limited (lack of saturation) and should be used alongside complementary data.	Yes. Data are sufficient to address the specified purpose in relation to kaiako experiences.	Yes. Sufficient documents were reviewed to provide an overview of programme delivery and the Alert Program® model.
Are the results balanced, with low-to-moderate risk of bias?	Data may not provide a balanced picture and centre selection may not be balanced..	Yes. Data provide a balanced picture, albeit some risk to bias exists.	Yes. Data provide a balanced picture.
Are the results likely generalisable to the population of participants?	Data are informative but not likely generalisable.	Yes. Data are likely generalisable.	Yes. Data are likely generalisable.

The different types and sources of data were collated and triangulated to accommodate the relatively small nature of the service and evaluation.

The quality of evidence used here was deemed appropriate for the purpose of this evaluation (continuous improvement and accountability), and the findings should be read in the context of the evidence quality.

What we found

The following sections answer each KEQ separately, summarising the answer as a series of finding statements (indicated as bolded headings) and the evidence that supports these findings (following these bolded headings). Interview data includes a reference to an occupational therapist (OT),³² Ministry regional staff and Ministry learning support staff (KS), kaiako (K) or the sense-making session (SM), making a specific statement to indicate the weight or consistency of the evidence supporting each finding statement. Judgements are based on three rubrics focusing on relevance, effectiveness and scalability, provided in Appendix A.

Relevance

The Alert Program® in ELS pilot was assessed in terms of its relevance to people (kaiako, OTs, Ministry) and the New Zealand context through feedback via case study interviews, document review and a survey of kaiako. Discussions in the final sense-making session facilitated contextualisation of these findings.

Relevance was assessed using the outcomes described in KEQ1, KEQ2, KEQ3, and found to be exceeding expectations in terms of relevance to the curriculum, kaiako roles and integration with the Ministry. Kaiako interviewed and responding to the survey identified that the programme was relevant to their curriculum and roles. Ministry staff identified how strategies had been adopted by Ministry specialists working alongside the programme. Stakeholders in the pilot mostly believed the programme was culturally relevant and adaptable, but this evaluation did not specifically test for Māori perspectives and thus we do not want to draw strong conclusions here.

KEQ1: How, and how well, has the Alert Program® been adapted for the New Zealand early learning services context?

Adaptation of the programme for New Zealand ELS settings drew on the official Alert content and previous adaptations in New Zealand, and materials evolved over the course of the pilot. Further adaptation occurred at the discretion of each ELS.

The four occupational therapists involved in the delivery of the Alert Program® in ELS developed, collated and adapted resources and training materials for use in this pilot. Occupational therapists drew on content from the formal Alert Program® online training course and their previous experience running the programme in other settings, including resources and tools developed as part of the Alert Program® in primary schools pilot

32 The number assigned to OTs has been removed as this was a small group (three individuals) and included the numbers may identify these individuals.

(OT, OT, OT). OTs selected content they felt was useful for the preschool age group or the New Zealand context, and adapted content where needed.

The early development and adaptation of resources was done by OTs, with some support from other Ministry staff, in part due to a staggered start of OTs to the positions, between August 2021 and February 2022. From November 2021, resources and content were shared via weekly online meetings between occupational therapists and other Ministry of Education national office staff. These meetings were seen as critical for collaboration, problem solving and sharing of ideas and resources (OT, OT, OT). Adaptations to content were also made for local centre contexts, and in response to feedback from kaiako over the course of the pilot. A lead OT experienced in delivering the Alert Program® supported OTs with the development and consistency of content, as well as mentoring and supervision.

A core feature of the programme was the adaptation of the materials to the local context. OTs supported ELS to adapt the programme further for their context. This further adaptation with centres is described in KEQ2.

I TAKE A COLLABORATIVE APPROACH WITH THE ELS, ADAPTING THE PROGRAMME TOGETHER. THE TEACHERS ARE THE ONES ON THE GROUND, SO I SEE MY JOB AS COACHING, GUIDING, AND TEACHING - OT

The pilot was perceived to be relevant to kaiako roles and adaptable to their local curriculum. Alert Program® content delivered by OTs was generally aligned with the existing curriculum, but links could be strengthened within the programme content.

Kaiako perceptions on how well the Alert Program® has been delivered and integrated into the ELS environment were tested in the survey. Almost all respondents agreed or strongly agreed that the programme was relevant to their role (see Fig. 3). Engagement of the case study centres was often motivated by a strong desire to improve self-regulation and wellbeing for tamariki and ELS. As one kaiako described *"anything that's going to support wellbeing with the centre is a plus for us, and we'll do it, even if it means working after hours"*.

Kaiako also agreed the programme was presented in a way that could flexibly be applied within their local curriculum (Fig. 3). ELS described integrating the Alert Program® with concepts or activities they were already doing in their centres (K6, EIT3, K2). For example, one centre integrated the Alert Program® into work they were already doing around heart health, integrating a focus on heartbeats into their teaching of the Alert Program® (K6). Another early learning service integrated the Alert Program® into existing work from a similar OT-developed programme focused on sensory regulation and emotion regulation³³ (KS6).

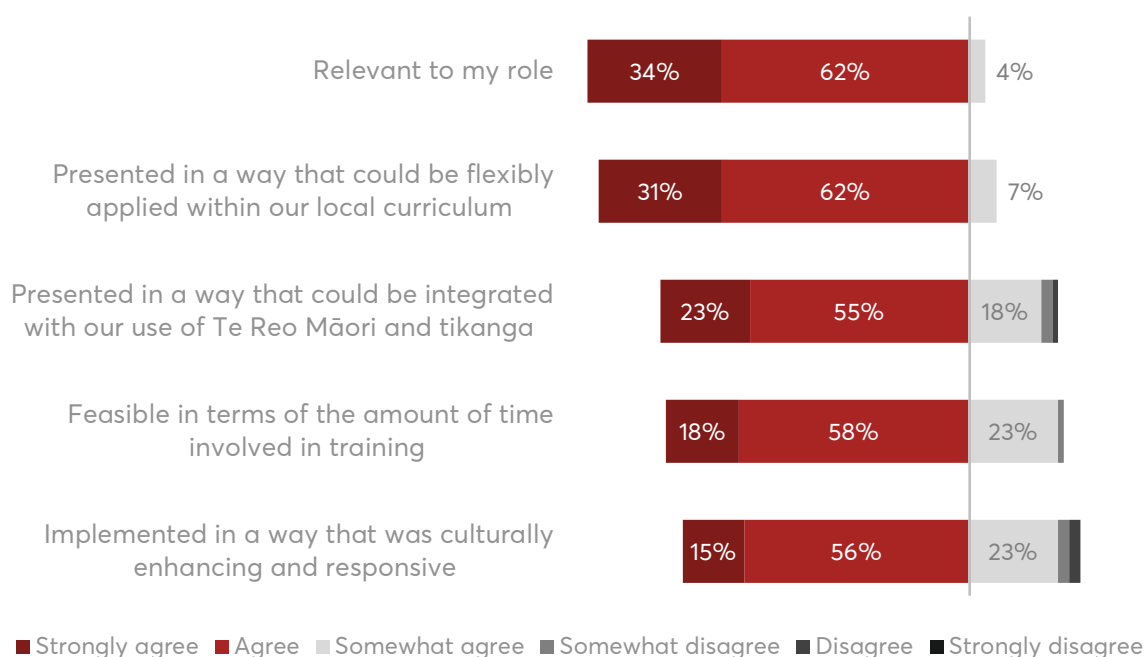
³³ The zones of regulation. (2021). Learn more about the zones: Zone framework & philosophy articles. <https://zonesofregulation.com/learn-more-about-the-zones.html>.

Despite some interviewees noting challenges finding ways to schedule training so kaiako could attend (K4, K7, K8), most survey respondents agreed that the amount of time involved in the training provided by OT was feasible.

This feedback is drawn from services who chose to participate in the programme; in future it may be useful to record whether time demands, perceived relevance or other factors play a part in any decisions by centres to not participate or to discontinue participation.

Figure 3: Overall kaiako perceptions of the Alert Program® delivery/integration (n=71)

The Alert training has been...



Stakeholders generally perceived that Alert Program® strategies are aligned with Te Whāriki³⁴ and He Māpuna te Tamaiti³⁵ (KS4, K7, OT, K2), and/or the local curriculum (K8, K1, K2, K3). The Alert Program® strategies align with the wellbeing strand of Te Whāriki and its associated goals and learning outcomes. Of most relevance, the Alert Program® aims to support tamariki with Te Whāriki's goal of "managing themselves and expressing their feelings and needs"³⁶ (p.27). The Alert Program® also links with Te Whāriki outcomes around developing children's verbal communication for a range of purposes, outcomes around comfort with routines and events and outcomes around expressing feelings using a range of materials and modes ³⁷ (p.42). Several of the teaching strategies

³⁴ Ministry of Education. (2017). *Te Whāriki He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum*. Wellington, Ministry of Education.

³⁵ Ministry of Education. (2019). *He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning*. Cognition Education for the New Zealand Ministry of Education. <https://tewhariki.s3.ap-southeast-2.amazonaws.com/public/Teaching-strategies-and-resources/Files/He-Mapuna-te-Tamaiti-book.pdf>

³⁶ Ministry of Education. (2017). *Te Whāriki He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum*. Wellington, Ministry of Education.

³⁷ Ministry of Education. (2017). *Te Whāriki He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum*. Wellington, Ministry of Education.

outlined in Te Whāriki, such as role modelling, prompts and reminders, have been utilised by kaiako in their delivery of the Alert Program®.

The He Māpuna te Tamaiti chapter on emotional learning advocates a similar set of strategies to that used in the Alert Program® (e.g. talking to tamariki about emotional states and noticing signs in tamariki that are indicators of feelings). Furthermore, there is specific reference in He Māpuna to the use of calming rituals such as breathing exercises³⁸(p.39), which are also strategies utilised with an Alert Program.

There are a range of sections of He Māpuna te Tamaiti that discuss emotional competence as an ability to understand, interpret and manage feelings (p.35). The Alert Program® has similar goals but focuses specifically on arousal level and utilising sensory strategies to change one's arousal level (with the assistance of adults). The Alert Program® focuses on regulation of arousal levels, which is one of many important aspects of social and emotional competencies (KS2). Supporting tamariki to maintain an optimal level of arousal could provide conditions in which other socio-emotional skills (e.g., social skills, self-managing learning behaviours) can be better practiced and learned (Doc 1).

ALERT FOCUSES ON LOOKING AT SENSORY PROCESSING AND IMPACT ON “ALERT LEVELS”, BUT WE KNOW THAT SELF-REGULATION IS LINKED TO SO MANY OTHER FACTORS ... WE NEED TO SUPPORT EDUCATORS TO THINK ABOUT WHERE IT FITS— KEY STAKEHOLDER

Two resources were developed to encourage ELS to make links between the Alert Program® and He Māpuna te Tamaiti, a card-sorting activity and a template. Some kaiako felt the links to He Māpuna te Tamaiti could be more explicit, or ongoing, within the programme content (S3, K6). However it may be that the centres who made these reflections had not yet accessed the resources developed.

Most survey respondents believed OT delivery of the programme was presented in a way that was culturally responsive and could be integrated with their use of te reo Māori and tikanga. Further work could be done to integrate a cultural lens within the programme.

As shown in the survey results (c.f. Fig. 3), 78% of kaiako reported that the programme could be flexibly integrated with their use of te reo Māori and tikanga and 71% believed that the programme was implemented in a way that was culturally enhancing and responsive.

Interviewees also viewed the programme as relevant cross-culturally (K3, K4, K8). One described how the concepts of managing displays of emotions were relevant to the cultural values of many of the tamariki attending their centre (K8). However, this pilot

³⁸ Ministry of Education. (2019). *He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning*. Cognition Education for the New Zealand Ministry of Education. <https://tewhariki.s3.ap-southeast-2.amazonaws.com/public/Teaching-strategies-and-resources/Files/He-Mapuna-te-Tamaiti-book.pdf>.

has not yet been rolled out to kōhanga reo or Pacific language centres and we have been unable to examine cultural relevance in these contexts. One stakeholder recommended further work to consider whether Māori whānau would perceive and value this programme as well as others (KS2).

There is not a strong bicultural lens within the materials developed to date, and some stakeholders would like to see a more bicultural lens integrated into the programme moving forward (S22, K6, MoE2). Some work on integrating a bicultural and multicultural lens is underway. Over the course of the pilot, a number of ideas for culturally relevant sensory tools were developed, and there is a plan to integrate examples from cultural adaptations made in local centres into the broader content delivered by OTs. Local cultural adaptations made by individual centres are discussed under KEQ2.

It is intended that champions from the ELS will utilise the official Alert Program® online training modules to build a deeper understanding of the programme strategies and theory. This official online training for champions was developed in the United States and has not been adapted to the New Zealand culture or context. As such, there was a concern about the appropriateness of the online champions course for the New Zealand context (OT). This evaluation was unable to assess wider perceptions of the online modules or levels of engagement with the full set of content because kaiako only signed up to the online training towards the end of the evaluation.

Delivery of the Alert Program® in early learning settings utilised aspects of the full Alert Program® and had a particular focus on role modelling and co-regulation, and building understanding of the Alert Program® language among the older preschool children.

The original Alert Program® training and previous New Zealand pilot were aimed at primary school age tamariki, although the programme has since been utilised with multiple other age groups and settings, including for preschool age groups, such as in the current pilot.³⁹

The Alert Program® leader's manual notes that it does not expect that children under the age of eight will be able to manage their levels of sensory regulation independently, however it notes that basic concepts of the programme can still be used.⁴⁰ Thus in adapting the programme for a preschool setting, the programme intended to focus on co-regulation; kaiako supporting tamariki to utilise sensory strategies to help manage their arousal levels or altering the environmental stimulus themselves to help manage the arousal levels of tamariki (SM, MoE2, Doc2-5, Doc7). The original Alert Program® focuses on building children's understanding of their own Alert Program® levels, using an analogy of an engine running at "low", "high" or "just right". At the outset it was suspected that this analogy may not be understood in a preschool age group.

Within this pilot, some kaiako reported the Alert Program® analogy was easily understood by preschool tamariki (K2, K4, K5). Others noted that the engine analogy was

³⁹ Williams, M. S., & Shellenberger, S. (1996). *"How does your engine run?"®: A leader's guide to the Alert Program® for self-regulation*. Albuquerque, NM: TherapyWorks, Inc.

⁴⁰ Williams, M. S., & Shellenberger, S. (1996). *"How does your engine run?"®: A leader's guide to the Alert Program® for self-regulation*. Albuquerque, NM: TherapyWorks, Inc.

sometimes misconstrued by the tamariki they worked with or took a long time for these tamariki to understand (KS3, K8, OT). As one kaiako described "*The older four-year-olds are able to understand. They have surprised us; they have used the language to describe emotions/characters in the book. The younger kids don't understand, they think it's cool to be a Lamborghini.*" Many stakeholders noted that younger tamariki often got stuck on wanting to be a fast car when a car speed analogy was used rather than the original low, just right, and high engine levels (K8, K7, K6, OT).

The pilot content and relative emphasis on role-modelling, co-regulation and building children's own understanding of Alert Program® concepts developed over the course of the pilot, in part in response to the needs and interests of ELS. This development and testing work will be useful for informing and building a consistent understanding around the role of these different components in a preschool setting. ©As described in KEQ7, it will be useful to test or monitor the impact of extending the Alert Program® to a preschool neurotypical population as the programme's published evidence base largely relates to individuals' sensory integration difficulties or associated diagnoses. Nonetheless it is reassuring that stakeholders in this evaluation described the Alert Program® concepts as relevant for understanding behaviour in a wide variety of tamariki.

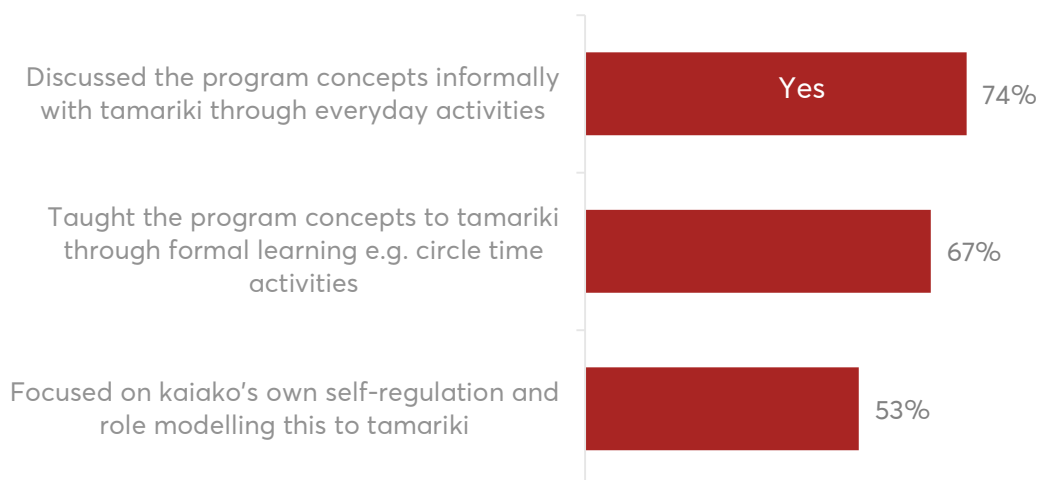
KEQ2: How, and how well, has the Alert Program® been delivered/ integrated into the ELS environments?

The Alert Program® concepts are being delivered to tamariki through a combination of role modelling formal and informal learning experiences within ELS.

The questionnaire explored the types of approaches the centres used to teach tamariki the Alert Program®, as stakeholders were interested in how the programme was being integrated into centre activities. Most commonly, centres discussed the programme concepts informally with tamariki through everyday activities (74% of survey respondents). Kaiako in the case studies described using phrases like "*Your engine is running too fast, go and get a drink of water*" or needing to "*take their engines to the garage to be fixed*" in their informal interactions with tamariki.

Figure 4: Overall frequency of approaches to teaching the Alert program® concepts (n=72)

What approach(es) has your centre used to teach tamariki the Alert program®?



Most kaiako (67%) also identified that formal learning activities were used to teach the programme concepts to tamariki. In one of the case studies, kaiako were using the visual chart of engine levels at the end of mat time and asking tamariki to put their velcro faces on the chart in the place where they are feeling at that time (K2).

Around half of kaiako noted their centre had focused on their own self-regulation and role modelling of this to tamariki (Fig. 4). Only five of the survey respondents (6%) reported that they had exclusively focused on kaiako's own self-regulation and role modelling and had not engaged in either formal or informal teaching strategies. There was some regional variation in this, potentially reflecting a different emphasis on role modelling and teaching tamariki about the analogy within the different regions.

Kaiako often used these strategies in combination. Over half of all kaiako (57%) reported using more than one approach to teach tamariki the Alert Program®, and 31% of respondents reported that their centre had used all three of the strategies. ELS also described using staff meetings and/or internal evaluations as tools to embed their learning and the programme in their centres (K2, K6).

Most centres made adaptations (with support from OTs) to make the programme content relevant to the age group of their tamariki.

Kaiako commonly adapted the programme to the age group of tamariki in their centre (Fig. 5).

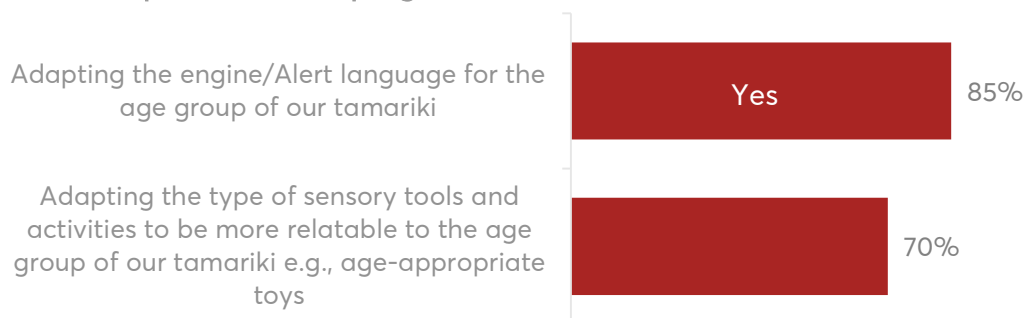
Adaptation of the engine analogy was common (85% of survey respondents). OTs presented centres with a range of potential Alert Program® analogies (high/just right/low, fast/just right/slow, fast-slow animal characters, and te reo alternatives e.g. tere rawa, pōturi rawa, tika noa or mauri tau) and worked with centres to select the language that would best suit their centre. Within these analogies, the language was sometimes nuanced further for age, for example centres talk about "a car that's about to drive off the road or blow a gasket" rather than being a "fast car" as some tamariki just wanted to be fast cars (OT).

Tools and activities were also adapted (Fig. 5).

Kaiako also commonly adapted the type of tools and activities for developmental age (70% of survey respondents). One ELS centre gave the example of a task that involved cutting and folding, which was simplified for their age group (K6).

Figure 5: Overall frequency of Alert Program® adaptations (n=71)

At my ELS we adapted the Alert programme® to the local center's context



STRETCHING THE MODEL THEY HAVE GIVEN US, WHICH SITS MORE AT THE 4.5-6 YEAR OLDS AND STRETCHING IT BACK TO FIT WITH THE 2.5 AND 3 YEAR OLDS SO WE GET THE SHIFT IN PRACTICE FOR EVERYONE - KAIAKO

Cultural adaptations at a centre level are possible but rely on centres having expertise in this area.

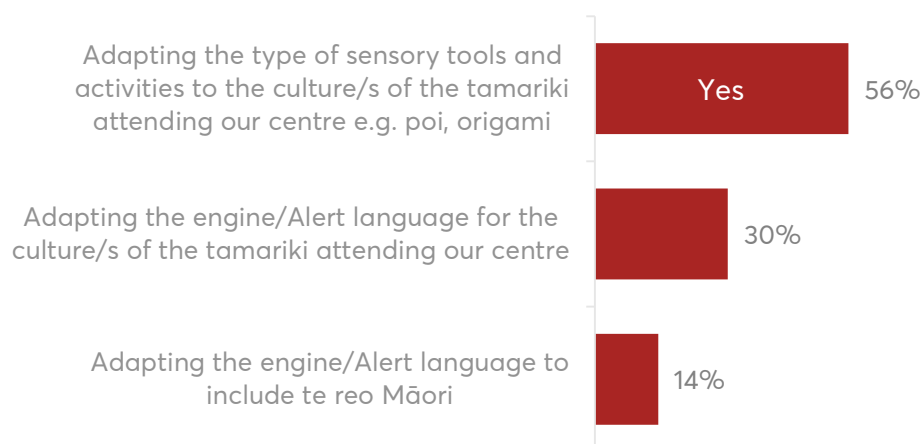
The programme was presented in a way that could be integrated with the centre's use of te reo Māori and tikanga (Fig. 6), yet few centres had incorporated te reo Māori within their delivery to tamariki (Fig. 6). One of the potential barriers to cultural adaptation at a centre level is that some centres may not have the cultural expertise among their staff to make appropriate adaptations (K5, K6).

Adaption of the language for the cultures of tamariki more generally was identified by about a third of respondents. For very multicultural centres there may be a tension between creating a consistent language that everyone in the centre can use and adapting the Alert Program® language to multiple cultures within a centre. Again, the cultural expertise of staff will also influence adaptation. In case study 1, those kaiako who spoke the home languages of the tamariki incorporated these when they explained the Alert Program® concepts to individual tamariki (K3).

Adaption of tools to the culture of tamariki was more common. Half the participants said they had adapted the type of sensory tools and activities to the culture of tamariki attending their centre. This may be a more feasible area of adaptation as it is possible to have multiple sensory tools available for tamariki whilst still maintaining a single concept.

Figure 6: Overall frequency of Alert Program® adaptations (n=71)

At my ELS we adapted the Alert programme® to the local center's context



KEQ3: How, and how well, has the adaptation of the Alert Program® been integrated into Ministry service delivery as part of universal supports?

Early intervention teachers (EITs) and speech and language therapists (SLTs) and other Ministry staff supported OTs with recruitment, relationship development and knowledge about working in the ELS sector, in some cases engaging in collaborative delivery.

In each of the three case studies, an EIT and/or SLT had attended, or planned to attend, one or more of the sessions delivered by the OT to the centre. This provided the EIT and SLT with knowledge about the programme that could in turn enable them to support the ongoing delivery and problem solving for the programme.

The relationship brokerage role and sector orientation provided by other Ministry staff was useful for OTs joining the programme (OT, OT, OT). Ministry managers, SLTs or EITs supported OTs in their engagements with the centres, often providing or supporting the initial discussion and pitch to centres (OT, OT, OT, EIT3, MoE2, MoE1). This support was described as very important for getting centres on board, particularly where OTs didn't have existing relationships. As one key stakeholder noted, "*Our work lives or dies by relationships*". EITs and SLTs know the centres, so they gave the OTs support with troubleshooting and communication (OT, SLT/EIT1). Given the value of the collaboration between the OT and SLTs/EITs, it may be useful for the OT to report to a delivery team (KS2).

There was evidence of collaborative planning with SLTs and EITs for two of the case studies (KS5, EIT3). In the third this had not yet occurred, in part because they had been unable to meet at the centre due to COVID-19 visiting restrictions (KS4). One SLT supported delivery, working with the centre to think about how the language could be introduced to tamariki, "*what does 'just right' mean for the body. What do the words feel like for tamariki? The participant teaches all the tamariki how to introduce new*

concepts, visual representations etc. She supports the communication of these concepts" (KS).

EITs and SLTs also drew on Alert Program® language and strategies within their work with individual students in those centres (MES1, EIT3) or planned to do so in the future.

The involvement of EITs and SLTs in the Alert Program® training also influenced, or had the potential to influence, strategies EITs and SLTs use with individual tamariki in the centre (KS4, EIT3, SLT2). One of the EITs described integrating the Alert Program® strategies into their work with individual tamariki and discussions with parents and teachers (KS6). EITs and SLTs in other areas hoped to build some integration with their work later in the pilot (KS4, KS5). There was potential for the strategies to benefit tamariki with autism, but as this initial pilot was delivered as a universal programme there was no explicit discussion of working with high-needs individuals in the formal delivered content (KS4, EIT3). In some instances OTs supported referrals or conducted informal brainstorming with EITs around their support for specific children (KS6).

Integration and upskilling of SLT/EIT staff required a time commitment from those staff to engage with the programme. Some described this time as supporting their work, including relationship building with services and allowing them to think about multiple tamariki rather than single individuals (KS5). One SLT described assigning around two hours per week to engagement with the Alert Program® when attending individual visits with centres (KS6), while another estimated they had spent approximately an hour every few weeks on Alert (KS5). In one case study, SLTs/EITs described attending the four hours of workshop delivery, with minimal involvement in meetings. These EITs and SLTs were interviewed early in the pilot, and it is possible their time commitments shifted over this period.

Ministry early intervention teachers and speech and language therapists could support the embedding of Alert in ELS, but this would likely require OT supervision.

Through the implementation of this pilot, the Ministry was keen to explore the potential role of EITs and SLTs in the delivery of the Alert Program®. EITs and SLTs visit centres regularly, and thus may be able to help with problem solving (KS6, K1) and/or integrate the Alert Program® concepts into their own practice.

EITs and SLTs would likely need further training, beyond attending the OT sessions, to enable them to act as a main contact for follow-up support for the training. As mentioned, some EITs and SLTs were interested in attending the online champions training but had not done so until towards the end of the evaluation, in part due to lack of clarity around whether they were able to access it (KS6, KS4). Thus, the adequacy of this training to upskill EITs and SLTs was unable to be explicitly assessed in this evaluation.⁴¹ The Alert Program® documentation recommends that anyone delivering

⁴¹ EITs and SLTs had not yet engaged with the online champions training at the time of the evaluation interviews.

the Alert Program® is supervised by an occupational therapist, and thus the role of the OT would still be needed if delivery was shifted more to an EIT or SLT role.⁴²

Any future intended role of EITs and SLTs as the primary source of support for the Alert Program® may also need to be clarified in relation to their overall role within the Ministry, as these roles have typically had a focus on supporting individuals or small groups of tamariki.

42 Williams, M. S., & Shellenberger, S. (1996). *"How does your engine run?"®: A leader's guide to the Alert Program® for self-regulation*. Albuquerque, NM: TherapyWorks, Inc.

Effectiveness

This process evaluation sought to understand to what extent, and how, the pilot has supported **building knowledge and practices within the ELS** involved, acknowledging that training was still underway at the time of the evaluation. The Alert Program® utilises an analogy of a car engine or Alert Program® levels to help people understand and identify their current state of regulation and adapt this if needed using sensory strategies. Effectiveness was assessed in terms of kaiako understanding and utilising the Alert Program® strategies within their ELS.

The pilot was found to be exceeding expectations in terms of effectiveness in relation to kaiako practices. Kaiako responding to the survey and interviews consistently noted that they had built their knowledge around the Alert Program® and understanding tamariki's needs. Most kaiako responding to the survey reported using the Alert Program® strategies at least multiple times a week. Confidence and use were developing and would likely benefit from additional follow-up support. Some of these strategies reflect a nuancing of activities kaiako were already doing.

KEQ4: To what extent, and how, has the pilot supported building knowledge and practices in the area of social and emotional learning within the ELS?

Kaiako developed knowledge about the Alert Program® and reported being better able to understand the behaviour and social and emotional needs of tamariki.

The training provided was effective at teaching kaiako about the theoretical concepts of The Alert Program® (arousal) levels. As shown in Figure 7, almost all (99%) survey respondents agreed or strongly agreed that following the training they understood the theoretical concepts of high, low and "just right" engine/Alert Program® levels.

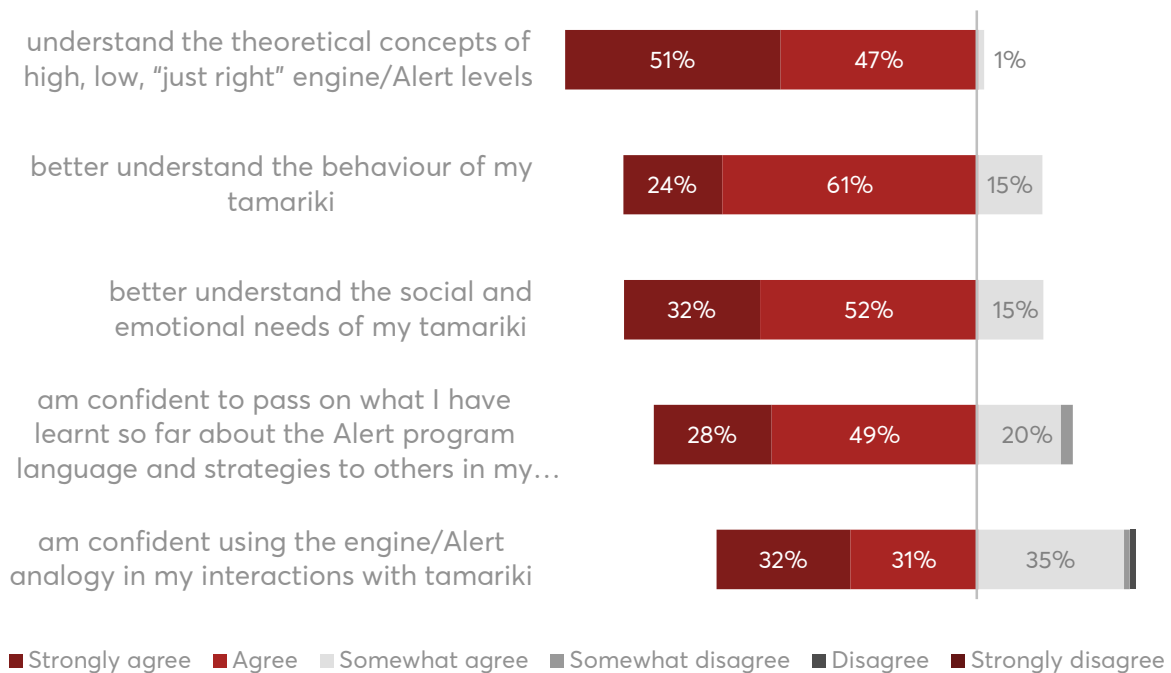
Around one-third of respondents indicated they were not confident (or somewhat confident) using the engine/Alert Program® analogy in their interactions with tamariki. Slightly more were confident sharing the concepts with others in their centre, suggesting there are opportunities for peer-to-peer support in embedding the programme. As noted later, the qualitative survey responses indicate that additional practice and support may be useful for increasing confidence. One kaiako interviewed attributed a lack of confidence to their relative newness to the programme, as she had only started at the centre part-way through the pilot (K5). Within the sense-making session it was also emphasised that many centres had only just completed the OT training at the time of the survey (SM).

The training also supported kaiako to better understand the behaviour and social and emotional needs of tamariki. Most kaiako agreed or strongly agreed that they better understand the behaviour of tamariki, and their sensory and emotional needs (85%). As one kaiako interviewee described, *the Alert workshop made me recognise and understand tamariki from another perspective. Kids display emotions differently, I needed to recognise that a child may not be 'high' if they are running around outside,*

they are just having fun". Many interviewees described how the Alert Program® training supported a new interpretation or improved understanding of tamariki's behaviour (K1, K2, K4, K5). In particular, enabling them to understand what types of sensory or support strategies work best for each child (e.g., sitting in a quiet space or sitting with an adult) (K1, K4).

Figure 7: Overall kaiako perceptions of knowledge gained from the Alert Program® (n=71)

Following the Alert training and support provided so far I...



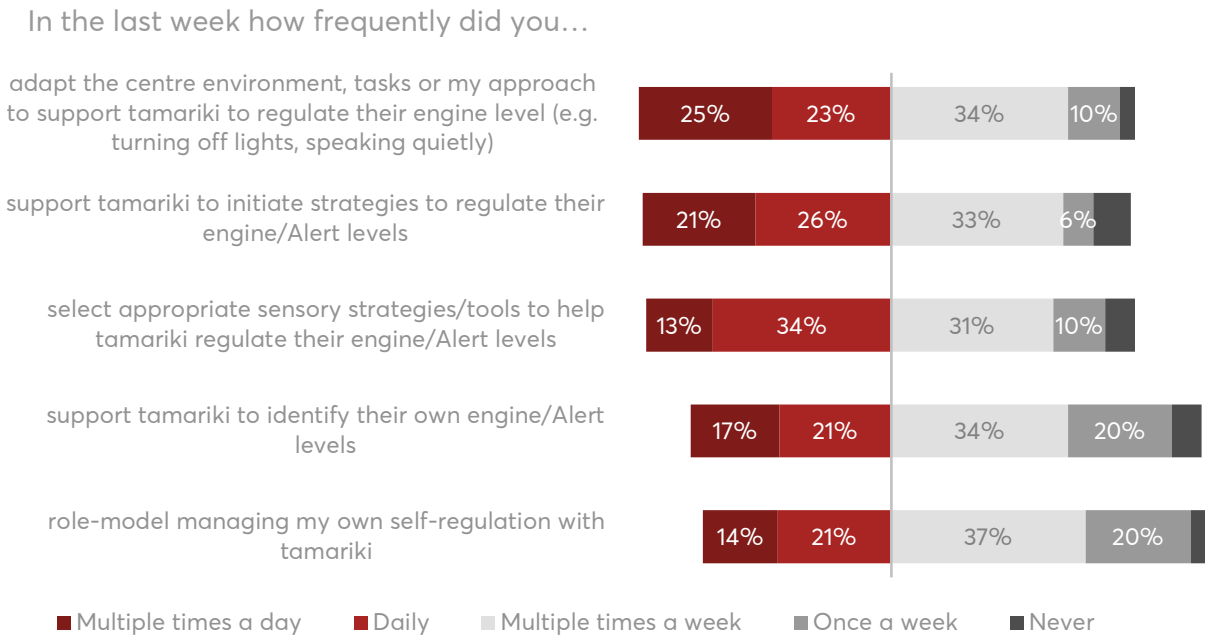
Most kaiako responding to the survey reported employing practices taught within this Alert Program® on a weekly basis, and nearly half were using some of these strategies daily.

Around half of the survey respondents reported adapting the environment, co-regulating or supporting tamariki to initiate strategies to regulate their arousal levels daily, and two thirds reported performing at least one of the behaviours daily (Fig. 8). More than a third of survey respondents reported supporting tamariki to identify their own engine/Alert Program® levels daily and modelling their own self-regulation with tamariki daily. Over three quarters of kaiako reported performing these behaviours multiple times a week. Supporting tamariki to select strategies was reported slightly more frequently than supporting tamariki to identify their own engine/Alert Program® levels (Figure 8), possibly because younger tamariki may be supported to use sensory strategies before they have developed the ability to self-identify their arousal levels. Around one-third of kaiako responding to the survey did not report performing any of these behaviours daily (Figure 9).

Kaiako in the case studies were interviewed earlier, prior to the completion of programme delivery. They described a more emergent practice, but in all three cases

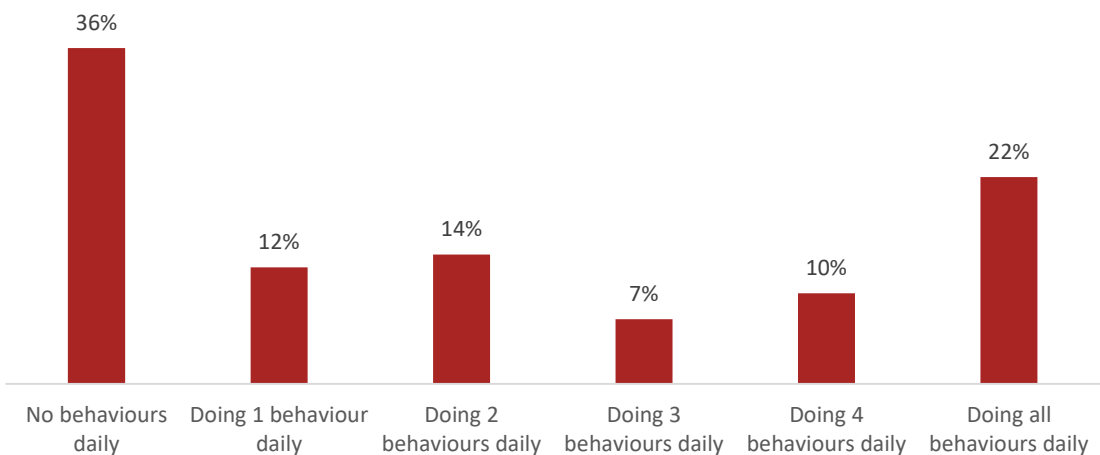
they described using the language with tamariki and examples of using sensory strategies or activities to modify tamariki’s arousal levels (K7, K5, K8).

Figure 8: Overall frequency of the Alert Program® related behaviours among kaiako responding to the survey (n=71)



Most respondents reported undertaking these behaviours at least once a week (Figure 9).

Figure 9: Combined frequency of Alert related behaviours (n=72)



To explore why uptake varied we compared the open-ended survey feedback for those not performing any behaviours daily or not confident with those who reported performing all five behaviours daily. These comparisons point to the importance of follow-up support, opportunities to view OTs role modelling the strategies, access to the sensory resources and access to the online training.

Those who reported performing behaviours daily (n=5) described the usefulness of having the OT role modelling strategies, the opportunities to trial the sensory resources and access to the online champions training. Those with limited implementation or confidence (n=5) identified that they needed more follow-up support to check they were on the right track, time to build confidence, to get the rest of the team on board, access to the champions training, to spend time looking at the information and to purchase sensory resources. At least two of those who were not confident or not using the strategies daily worked with under 2s and wanted strategies specific to this younger age group.

The pilot extended existing practices around sensory tools, talking with tamariki about emotions and supporting tamariki with their arousal.

Kaiako in the case studies viewed this Alert Program® as an improvement and extension on previous work and knowledge around emotions and/or sensory tools (K1, K8, K5). For example, in case study 1, kaiako had previously had some sensory tools in their centre, but these were scattered around the centre. Placing these in one area provided tamariki with a quiet place to go and allowed kaiako to check in with tamariki using the area and identify how they can support them (K2). In case study 2, previous discussions around feelings focused on the emotions of happy or sad but did not extend to tamariki's arousal levels (K4). In case study 3, a kaiako noted that they were already doing some role modelling about how they were feeling, but the Alert Program® pilot had extended their practice by giving them more specific language to use with the tamariki, greater confidence to talk about where they were at, and another strategy in their toolbox to support the tamariki in the centre (K5).

Scalability

The Alert Program® in ELS pilot was assessed in terms of its scalability largely via case study interviews, with some information derived through the survey of kaiako participating in the programme. Scalability was assessed using the outcomes described in KEQ 5 and KEQ 6. Judgements were made against the delivery model utilised in the pilot and consider the potential need for further adaptations to the delivery model moving forward.

The pilot was found to be meeting expectations in terms of scalability. Key stakeholders identified that the delivery model and integration into Ministry delivery was working well, with relatively minor opportunities to adjust the model of delivery moving forward. Expansion of the programme is possible, with the ability to recruit OTs to work in these roles likely to be the limiting factor in scaling. In all three pilot case studies, the Alert Program® was found to be a programme that had the potential to be sustained in ELS long term. Resources, training and time capacity, support, and the involvement of learning support staff were all areas identified in the case studies by the ELS to be significant for assisting with prolonged sustainability, and thus scalability of the pilot.

KEQ5: What would be required to set up and implement the Alert Program® as part of universal supports and to sustain the programme locally?

During the pilot some Alert Program® training was offered to all ELS staff, with more intensive support to champions. This model had advantages for programme uptake and sustainability.

At the outset of delivery, it was intended that OTs would provide intensive support to a small number of kaiako in each ELS, and those kaiako would build their knowledge further through official Alert Program® online training modules and pass this knowledge on to colleagues. However, during the pilot OTs usually provided training about Alert Program® to most staff members in each ELS via workshops. Additional meetings and online training opportunities were held with centre champions.

At the completion of the pilot, 76 kaiako have signed up to one of the two online training courses. The majority (60%) of these individuals signed up to the online course in the final month of the pilot. Few were expected to complete the course at the time of the survey, and thus this component of the training was not specifically assessed within this evaluation.

The delivery of content to all kaiako had several advantages for centres. Case study 1 noted benefits in terms of fostering engagement across the team and enabling collaboration between kaiako and feedback on each other's practice (K2, K8). Direct information from the OTs, via in-person conversations or videos of the training, aided understanding as they were engaging and able to clearly articulate the Alert Program® concepts (K5, K3). Direct information from OTs to staff may also limit the opportunities for miscommunication of the concepts. Another potential advantage of a centre-wide

model is that it protects against information loss when individuals move centres. The champion in case study 2 left the centre within the first couple of months of the pilot.

For those using a mainly champions model, this was advantageous as it required only one or two kaiako to be released from the floor at any given time (K6). However, this did not necessarily save staff time overall because other staff needed time after these visits to engage with information provided by the OT via the champion (K6).

The combination of learning activities was well received by services in each ELS, but stakeholders identified the need for greater clarity around the structure and objectives of sessions (K4, K6, OT, K8), and more guidance about how the Alert Program® would be best adapted in their centre (K4).

As shown in the kaiako interviews (K2, K8) and few survey responses, kaiako received the training positively, valuing the follow-up support, role modelling of strategies and the interactive nature of the sessions. Follow up visits enabled external observation of their practice to build confidence that they were delivering the Alert Program® appropriately provided opportunities for the OTs to role model the use of sensory language or tools with tamariki. Training manuals to refresh themselves later and to use in training were also valued by staff, as reported by few survey respondents. The variety of strategies and staggering of information over multiple sessions was also appreciated (K6).

THE OT WAS FLEXIBLE ENOUGH TO WORK WITH THE CHILDREN AND ALLOW US TO VIDEO THIS. THEY ALSO MADE TIME TO COME TO STAFF MEETINGS AND OUR SMALL GROUP HUIS TO MAKE SURE INFORMATION IS COMING IN MULTIPLE WAYS FOR MULTIPLE LEARNING STYLES - KAIAKO

The delivery of the Alert Program® to centres was often fluid and flexible, in part due to a desire to consider centre needs and ways of working (OT). Whilst some flexibility of timing was appreciated (K6), there was an expressed preference for more structure in terms of having the number, timing, and objectives of sessions set out more clearly in advance (K4, K6, OT, K8). Documents have now been developed to support ELS understanding of the objectives and structure of the sessions.

Some kaiako also requested greater guidance around adaption, noting it was hard to make decisions about exactly how the programme should be adapted for their centre without prior experience with the programme (K4); *"We could choose how it could go; this was hard. It may have been better to have structure, it may be easier to follow. We didn't know what was available or what we wanted."* Flexibility of which language to use also meant that different language was adopted by associated centres, missing an opportunity to build alignment for those staff and tamariki transferring between centres (K4).

Delivery and adaptation in the ELS resulted in a variety of different models of implementation, with differing degrees of emphasis on role modelling versus a focus on tamariki understanding the concepts. An agreed definition of essential delivery in this

age group would support consistency and embedding of the Alert Program® moving forward. Work in this area is underway.

The funding of sensory resources was valued by kaiako, but there are opportunities to improve the process for accessing and trialling these.

The sensory resources provided through the programme were consistently mentioned as a critical part of the implementation of the Alert Program®, although many centres were also incorporating tools already present in their centres.

Most ELS have some existing sensory tools, as one OT described *"A lot of centres have things but don't necessarily think about it as a sensory strategy. E.g. a swing – not one centre had one, but the repetitive motion is really good for some tamariki"*. Around three-quarters (72%) of survey participants noted that they had been able to utilise sensory tools they already had available in their centres.

Whilst some existing resources could be utilised, durability (K1, K8) and cost were raised as limiting factors (K1, K4, K6) and staff were looking forward to purchasing additional resources using the available funding. Some of the tools available or purchased by centres were not durable enough for the ELS and did not last long on the ELS floors with the tamariki. Cost was also drawn attention to in the case studies, with reference to the recommended sensory resources. \$1,000 was given to each ELS on set up to spend on resources. ELS noted that some tools were expensive (\$80-\$400) and in some cases it would be useful to have more than one of each available for a class of thirty (K1).

Access to the funding for new sensory resources occurred late in the pilot, with ELS noting it would have been useful to trial these earlier (K4, K6). Mechanisms for providing funding for resources earlier have now been established.

I'D LIKE TO SEE THE SENSORY RESOURCES THAT HAVE BEEN SPOKEN ABOUT. HAVING AN OPPORTUNITY TO TEST THESE OUT WOULD INFORM OUR CHOICES ABOUT WHAT WE WANT TO SPEND MONEY ON — KAIKO

The high cost of certain sensory tools contributed to some participants mentioning the importance of trialling the resources before committing to buying them (K6). Case study 3 specifically mentioned not yet having tested many of the resources and that they would not know how well they worked until they trialled them in their centres (K5, K6, K7). This ELS suggested the opportunity of the equivalent to a toy library, where ELS could share Alert Program® resources regionally (K6).

There was mixed feedback on the feasibility of the time demands of the training, and concerns the programme was information heavy and challenging to fit into existing work.

Training in the Alert Program®, although viewed as useful, was at times challenging to fit alongside other demands on kaiako.

The context in which these kaiako in ELS work was important for contextualising their ability to undertake professional development work such as the Alert Program. Kaiako in ELS work long, physical days with large groups of up to 50 (KS6) young tamariki with individual and complex needs. Therefore, it has been “an ask of teachers” (K). Demands on kaiako were particularly high during the pilot period, with many centres struggling with staff sickness, additional workloads and challenges associated with COVID-19 (KS1, K6, OT, OT).

Three out of four survey respondents agreed that the programme was feasible in terms of the amount of time involved in training. However, time itself and the lack of time was a consistent theme throughout the interviews (OT, K1, K6).

The time needed for the training sessions in particular was found to be a considerable barrier for some of the centres (KS1, K6). Time demands included attending around four hours of workshop training for most kaiako in a centre, with up to six additional follow-up sessions which could be attended by all kaiako or only specific champions within a centre. Case study ELS described needing additional time to consider and discuss the materials and embed the Alert Program® delivery. In case study 1, additional time included reflective sessions on the PD and internal evaluations. In case study 3, the Alert Program® was discussed biweekly in staff meetings and staff spent time discussing and reading materials they had been sent by the OT via the champion. A number of centres requested training outside their usual work hours so that all staff could attend the sessions. As part of the pilot ELS were provided with five days of teacher release funding to support staffing.

THOSE TEACHERS WHO ARE REALLY ENGAGED IN THIS TRAINING HAVE SPENT TIME OUTSIDE OF THEIR WORK HOURS ON THIS. I WANT TO MAKE THAT LIST OF THINGS THEY DO OUTSIDE OF HOURS AS SHORT AS I POSSIBLY CAN FOR MY KAIAKO – KAIAKO

Stakeholders also highlighted the vast amount of information delivered through the workshop in a relatively short period of time (K1, K4, K8, EIT&SLT1, OT), describing the content as “intensive” and “information overload” (K8, MoE1). Fortnightly spacing of the sessions was a short space of time to consider and discuss all the learning before new content was introduced (K8).

Time demands, as well as lack of clear information, were also identified as barriers to use of the official online champions training. Case study 3 said they were interested in the professional learning course but their kaiako are not yet sure about what the impact would be on their practice (K6). This early learning service specified that due to time pressures on staff, kaiako needed their professional development to be delivered “*low and long with elements of flexibility*”. The manager indicated that the online training might be feasible for her staff if it could be completed with a commitment of 20-30 minutes per week (K6).

Time constraints were also significant for OTs and learning support staff. OTs and the learning support staff need to be adaptable with their time to suit the centres they are

delivering to and supporting (OT). The logistics of scheduling impacted upon the frequency of visits to ELS (KS6). In addition, the travelling time that it took for the OTs to arrive at some of the ELS was a factor due to the geographical distances between some of the centres (KS6). Time constraints have been exacerbated by COVID-19 and ELS limiting how many visitors they can have in the centre at one time (KS6).

Follow-up support will be considered important for embedding and sustaining the Alert Program® within ELS.

All three of the case studies and the survey feedback deemed OT follow-ups important to the ongoing sustainability of the Alert Program. The follow-ups present the ELS with the opportunity to voice their feedback (K2) as well as providing OTs the opportunity to encourage or suggest alternative approaches (K6). To embed the implementation of the Alert Program® into the ELS, the ongoing check-ins and support from the OTs was thought of as significant to propel learning (KS5). It was also viewed as important to make sure the intended standard of the Alert Program® was upheld (K2). These OT follow-up timeframes were suggested for the next few months, in a few months, for up to a year, or once a year (K1, K5, K7, K8).

IT'S WHETHER THEY CARRY ON WITH THINGS, THAT'S THE QUESTION. WHEN LEARNING SOMETHING NEW & YOU MAKE SOME BAD HABITS & NO ONE COMES BACK. A FOLLOW UP OR REFLECTION WOULD BE REALLY GOOD FOR THEM. — KEY STAKEHOLDER

The support of Ministry learning support staff was also raised in the case studies as an important continuing support for ELS (OT) and were themselves positive about the Alert Program® (KS4, KS6). Some Ministry learning support staff articulated wanting to collaborate with the OT more so they would be able to reach more centres (KS4). Once the OTs had completed their training and follow-ups, the learning support staff were conscious that they were the ones who would be consistently in the ELS (KS4).

Training and ongoing sustainability of Alert Program® practices was also impacted by staff turnover, which seemed to be common in ELS during this time (KS5, K4, OT). In case study 2, a significant proportion of the kaiako who the OT had trained in the Alert Program® were no longer there (KS5, K4). Staff turnover will generate the need for additional training and input from the OTs to sustain the programme benefits, particularly if those leaving are the local champions.

THERE'S A HIGH TURNOVER. WITHIN 6 MONTHS, IT CAN BE A COMPLETELY DIFFERENT TEAM. — KEY STAKEHOLDER

Whānau were not the focus of this pilot but there was some involvement and a desire to involve whānau more in the future.

The early learning setting was the main focus for this initial pilot and there appeared to be limited engagement of families. There was however a desire from stakeholders to

involve families further in the future. Support for collaboration with whānau was deemed important for long-term significant implementation of the Alert Program® (K1, KS6, K8); *“any strategies you implement will not work if it’s not done collaboratively with families”*.

So far, collaboration with whānau has been limited and varied among the centres. Within the case studies one ELS had provided basic information about the programme to families via a newsletter (K8), and another had introduced the concepts through individual conversations (K6). Storypark had been used to share information with parents in some case study centres (K3) but not others (K5). One EIT described integrating the programme content in her meetings with parents about individual tamariki they were supporting (KS6).

Limited opportunities to speak with families was noted as a challenge to engaging with them (K2), exacerbated by pick-up and drop-off rituals associated with COVID-19 (K8). Complexities of providing discussions to communities with varying levels of English was also described (K8), and the workshops delivered to kaiako were not seen as directly suitable for families to attend (K1, K8).

ELS were interested in further support from the Ministry in terms of engaging with whānau (K8). Some participants suggested that video clips would be useful for engaging with whānau (KS6, K8) and that a parents’ night or workshop would be more effective than written communication (KS6, K8). Given that tamariki at this age need support to self-regulate their arousal, any benefits of the programme for a whānau setting may depend on involving whānau in the programme.

OTs are essential for future delivery of the Alert Program® in ELS.

The benefit of the OTs in all three case studies was clearly conveyed. For some centres, the OT has been their biggest resource (KS6). The OTs have directed the centres in finding resources (K8), making resources (K7), and gaining a better understanding of the Alert Program. As mentioned under KEQ3, Ministry early intervention teachers and speech and language therapists could support the embedding of the Alert Program® in ELS and potentially the delivery of sessions, but this would require OT supervision and completion of the online training.

There was mixed feedback on the ease of recruiting OTs to the role in the future. One stakeholder noted that they don’t typically get many applications for OT and psychologist roles when they advertise for them (KS1). Another stakeholder thought the recruitment of further OTs would be possible, although some OTs will not have had prior Alert Program® expertise (KS2). The occupational therapists in this pilot were described as engaging, professional and knowledgeable, and recruitment of similarly competent individuals will be important for buy-in and uptake of the programme.

The size of the overall OT workforce in New Zealand is relatively large, and the Careers NZ website defines their job prospects as average,⁴³ which suggests there is not a major shortage of OTs. As an extreme case, assuming the ratio of FTEs to services was similar to this pilot, with slightly improved efficiency (1 FTE to provide support to 40 services over a one-year period), the programme would need to employ around 39 occupational therapists per year for three years, plus additional support from the Ministry with

⁴³ Careers New Zealand. (June 2022). Occupational Therapist. Tertiary Education Commission. <https://www.careers.govt.nz/jobs-database/health-and-community/health/occupational-therapist>

activities such as service recruitment. Delivery to 10% of services may require four FTE over three years, plus Ministry support. The upper figure of 39 occupational therapists would represent 1.2% of the overall occupational therapist workforce in New Zealand⁴⁴ and thus the size of the overall workforce is unlikely to be a limiting factor in scaling.

KEQ6: How, and how well, have the cluster approach and networks around the ELS worked collaboratively to deliver the pilot?

Working with a kāhui ako or a group of centres under the same management umbrella supported more straightforward recruitment of centres and has the potential to support collaborative learning, contingent on centres having the time and mechanisms to engage in collaborative learning.

In both case study 1 and case study 2, the recruitment of centres was made easier by going to a single kāhui ako or franchise, each service did not need to be approached separately (KS1, MoE2).

Working with groups of centres also offered opportunities for collaboration in the delivery of professional development and subsequent embedding of the programme. In case study 1, workshop content was delivered online to kaiako from multiple centres. This interactive discussion enabled centres to learn from each other's ideas (K2). For example, one kaiako noted, *"We got the idea of going back to ask the families how they are doing, and ere able to discuss how to avoid the sensory space being interpreted as a time out. The discussions give other centres things to think about"*. In case study 2, the programme was rolled out to a franchise of centres in a geographical area. Managers from the different centres met together regularly, enabling problem solving at that level. Individual kaiako in the centres were not exposed to collaborative learning with other staff.

Delivery to groups of centres provided opportunities to support sustainability, although it was too early to assess how services might support each other with embedding and sustaining the programme. At the time of the interview, case study 1 had not yet had the opportunity to utilise their links with other centres to support embedding of the programme and noted that time and other priorities may be a barrier to doing so (K8). It was hoped that by involving staff from all centres in the programme, staff transferring from another centre in the franchise would be able to bring this knowledge with them (K4, OT). Collaboration and support for embedding within a kāhui ako or franchise will depend on the centres having strategies and mechanisms for shared learning and mutual support, and the time to participate in these.

Delivery of the programme to a geographical area was less effective at allowing cross-centre collaboration. In case study 3, delivery was rolled out to most ELS in a discrete geographical region. The case study ELS had not engaged with other centres, and in fact

⁴⁴ Occupational therapy board of New Zealand. (2021). Annual Report 2021. The Bush Press of New Zealand. https://otboard.org.nz/document/5555/Final%20OTBNZ_Annual%20Report%202021_WEB.pdf.

did not know any other services in their region were engaging with the programme (K6). The EIT in this region has attempted to introduce the Alert Program® to a range of external providers, including health providers and schools in the region, and integrated the content into their planning sessions with parents (KS4). Through these conversations they have been raising awareness of the Alert Program® by sharing Alert Program® strategies and sharing success stories from some of the centres.

The pilot activities were delivered by occupational therapists (OTs) with some support from ELTs and SLTs and other Ministry staff, particularly around recruitment of centres and relationship building. External parties were not described as participating in the delivery of the Alert Program® in ELS in any of the case studies.

KEQ7. Which assessments and measurement approaches are appropriate and feasible for an impact evaluation?

A case for a rigorous evaluation.

Delivery of the Alert Program® as a whole-of-ELS programme extends beyond the original intention of the Alert Program® as a targeted support for children with sensory regulation deficits.⁴⁵ The published literature on the impact of the Alert Program® has been conducted with older tamariki and those with sensory deficits or associated diagnosis.⁴⁶ It is unclear if these findings extend to mainstream delivery of the Alert Program® or delivery to this younger age cohort. As this evaluation did not focus on tamariki, it is not clear if they will benefit from the programme. If benefits for tamariki are assumed from improving kaiako understanding of children's behaviour and understanding of self-regulation and co-regulation, it would be important to test these assumptions. The impact of the programme on tamariki and the benefits on social and emotional competencies and the broader society could then be estimated.

There is an interest among kaiako to assess impact, however time constraints were noted.

There was some interest from kaiako interviewed in this process evaluation to undertake work to better understand the impact of the Alert Program® (K3, K7, K6, EIT3, K4, K5), in particular to help them understand how their practice is progressing (K8, K2).

Interviewees noted that ELS had limited time to support an evaluation or complete forms (K4, EIT3). Some suggestions were offered to make evaluation feasible:

- Focus the assessment for some tamariki but not others (AI16).

⁴⁵ Williams, M. S., & Shellenberger, S. (1996). *"How does your engine run?"®: A leader's guide to the Alert Program® for self-regulation*. Albuquerque, NM: TherapyWorks, Inc.

⁴⁶ Nash, K., Stevens, S., Clairman, H., & Rovet, J. (2017). Preliminary findings that a targeted intervention leads to altered brain function in children with fetal alcohol spectrum disorder. *Brain Sciences*, 8(1), 7. <https://doi.org/10.3390/brainsci8010007>

- Using assessments as a learning experience, e.g., kaiako assessment that allows the kaiako to identify areas to strengthen (K2).
- Assessments could be conducted by an external party (K4).
- Limiting assessments to once a year (K3).

Potential measurement approaches

Given that tamariki may not be able to manage self-regulation independently at a preschool age, it is useful to clarify what the intended outcomes are for preschool tamariki.

Expected benefits of the Alert Program® for self-regulation in a preschool audience may include tamariki:

- developing a better understanding of their alertness (and/or feelings and emotional states)
- learning about which strategies they find useful for managing their arousal
- having more regulated arousal within the ELS (with the help of kaiako).

Within the sense-making session there was a strong emphasis on kaiako building their own self-regulation skills as a core outcome of the programme.

Kaiako described using narrative approaches to measure change within their ELS, including individual learning stories. These stories may contain narrative examples of change in behaviours or understanding for individual tamariki. Individual cases may provide an indication that the programme is working and demonstrate aspects of success. However, it will be difficult to discern the size or extent of impact of the programme from individual stories, particularly as many things impact on what is contained within these learning stories. Learning story examples could be incorporated within a wider evaluation to contextualise what impacts of the programme look like in terms of individual stories of success, and to assess if success is typically noted for children who were struggling with sensory regulation, or whether stories of change are also recorded for a wider set of children.

Teacher and parent reports of child behaviour on standardised measures of self-regulation (e.g. SDQ, BASC-3, CBCL)⁴⁷ would provide credible findings and support comparability with other studies and programmes. A list of validated tools for assessing self-regulation in children under 5 is provided in Appendix D. We were unable to identify a New Zealand-specific tool, although many of the tools listed in Appendix D have been widely used in New Zealand.

Of these tools the BASC-3 contains several behaviours that could theoretically be impacted by arousal level, and thus the Alert Program®. For example, questions include about the frequency with which a child pays attention, has trouble staying seated, is overly active, acts out of control. This measure has been utilised in similar programmes

⁴⁷ The SDQ: Strengths and Difficulties Questionnaire, BASC-3: Behavior assessment system for children and the CBCL; Child Behavior Checklist.

focused on social and emotional learning to detect impact and kaiako have experience completing this as part of the Plunket B4 school checks. The short form of the questionnaire takes about 5-10 minutes per student,⁴⁸ and thus completing this for 10 tamariki may take a staff member between 1 and 2 hours, and for 20 tamariki between 2 and 4 hours. The number of questionnaires needed to detect a significant difference over time will depend on the amount of change expected from the programme. Assuming a small-moderate impact on these measures ($d=.3$), the evaluation would need to measure self-regulation in around 300 tamariki in participating ELS, and a similar-sized control group. If effect sizes were smaller, the analysis could need up to 650 children in each group (see Appendix C). inter-rater reliability of this measure is mixed, and thus ideally the same person would undertake the ratings before and after the intervention.

We also considered whether kaiako observations at a classroom level could be used to detect the frequency of behaviours indicating tamariki's functioning was impaired due to a high or low state of arousal. For example, kaiako could make a tally of visible displays of low or heightened arousal (e.g., extended crying, tamariki unable to sit still at mat time) across a week. Examples of language use and the frequency of engagement with sensory tools available could also be observed. This would be quicker for kaiako to complete than individual formal assessments of self-regulation, however, detecting significant differences may only be detected if 250 services are involved in the pilot and agree to participate in the research. Further the results would be less easy to interpret in terms of meaning for overall self-regulation than standardised assessments.

The Alert Program® includes a "Teacher class survey" that involves rating the behaviour of the classroom, specifically the lowest levels and highest levels of behaviour on several dimensions (e.g. ignore distractions, take turns). This measure could be subject to "ceiling" effects if the highest possible score is already achieved by at least one student prior to the start of the programme. Further, because this tool relies on classroom or ELS measurements of self-regulation, the ELS-level sample size calculations apply here. If effects are small it may require the data from around 250 services to detect significant effects.

Service-level indicators such as number of referrals may provide a useful monitoring tool or supplementary indicator of impact. Again, because the numbers of referrals per service are small and data would be at a service level, there would likely again need to be at least 250 services involved in the programme to detect any statistically significant changes in this metric. Attention would also need to be paid to whether the Ministry presence in centres through programme delivery could bring about additional referrals.

Task-based assessments (such as the heads-toes-knees test) exist that external assessors could administer to assess aspects of self-regulation such as working memory, behaviour inhibition, following instructions and categorisation. However, these tend to focus on specific aspects of self-regulation that may not be a focus of the Alert Program, and reliability of such measures does not appear to have been demonstrated.

⁴⁸ Search Education Assessments | RAND

Other considerations

Self-regulation is expected to naturally improve over time in this age cohort, and thus attempts to measure the impact on self-regulation would ideally include a control group, as well as pre- and post-measures.

Any evaluation of impact on kaiako behaviour should include a pre-assessment of current ELS practice. The process evaluation identified that each ELS involved in the Alert Program® may already be using similar strategies in their practice prior to starting on the programme. If assessments are only done at the post stage, it is difficult to gauge the impact of the programme on teacher practices.

A measure of implementation fidelity would be useful for interpreting variation in the results as each service may differ in how extensively they implement the concepts, and this will influence whether outcomes are achieved.

Differential effects by age should also be examined, as the number of tamariki benefitting from the programme will differ greatly depending on whether benefits are observed in all under fives, just those over three or just those over four.



CONCLUSIONS

What can we conclude?

The evaluation was commissioned to help the Ministry understand how The Alert Program® was implemented, and whether the programme was relevant, effective (in these early stages) and scalable in the early learning sector. The overall conclusions are provided below, with considerations for next steps included as bullets under the relevant findings.

The programme delivery was consistently relevant to the curriculum, kaiako roles and the Ministry.

The Alert Program® was developed in the US, for use in a primary school age group with children with sensory regulation difficulties, and previously piloted in two primary schools in New Zealand. A core task for this pilot was adapting the programme content for New Zealand tamariki in early learning settings as a universal (non-targeted) programme.

Participating kaiako perceived the programme as relevant to their role. It offered them a better understanding of tamariki and simple language they could use to talk with tamariki around their feelings. Most kaiako also regarded the programme as feasible to integrate within their local curriculum, and the case studies revealed examples of centres integrating the activities and language with their existing practices.

The Alert Program® strategies were generally consistent with He Māpuna te Tamaiti and Te Whāriki. It was unclear whether there was a need for more specific links to these documents within the programme. It should also be acknowledged that the Alert Program® focuses on a specific aspect of social and emotional competencies, the ability to self-regulate one's level of arousal, and thus other teaching practices may be needed to support other areas of social and emotional competencies.

Consideration 1. The Alert Program® focuses on a relatively specific aspect of self-regulation. ELS should supplement the Alert Program® with other strategies focused on building social and emotional competencies, such as the wider set of strategies outlined in He Māpuna te Tamaiti.

Kaiako generally viewed the programme as flexible enough to be integrated within a cultural lens and existing use of te reo and tikanga. Around half of the kaiako had adapted the types of sensory tools for the culture of tamariki in their centre. However, kaiako noted that their ability to adapt the programme would be restricted by their own levels of cultural competence, and several stakeholders noted they would like to see a more bicultural lens in the delivery of the programme. The programme has not yet been specifically tested within a Māori or Pacific early learning service.

Consideration 2. Strengthen the cultural component of the programme, ideally through testing and co-development with Māori and Pacific centres or stakeholders.

The Alert Program® materials were adapted for a preschool age group. However, there was feedback that some of the materials and activities needed further adaptation to be suitable for this age group. Several examples were described where tamariki over four

were using the language in ways that suggested understanding of the engine analogy. Future delivery should clarify the role of these different components in a preschool setting, and confirm the specific expected outcomes of the programme for tamariki in ELS. The benefits of the pilot for the arousal levels of tamariki are most likely to extend to other settings such as home or school if adults in these settings also know how to support tamariki with co-regulation. An impact evaluation would support an understanding of the benefits of this programme for a neurotypical preschool population, as existing research and the original programme design focused on older tamariki with sensory regulation deficits.

Consideration 3. Support centres to engage with whānau and consider whether expansion to primary school is needed for the pilot to have benefits for school-readiness.

Consideration 4. Clarify the role of different components of the Alert Program® (e.g. building language, co-regulation, role-modelling) in a preschool setting. Clarify and ideally test expected outcomes for tamariki in a preschool age group.

The programme was considered relevant to the Ministry. EITs and SLTs in the case study centres drew on Alert Program® language and strategies within their Tier 3 work with individual tamariki in those centres involved in the pilot or planned to use it in their work in the future. The inclusion of EITs and SLTs creates opportunities to upskill these staff in another set of strategies they can employ in their practice and potentially builds consistency between Tier 1 and Tier 3 support in ELS.

These findings relate to the delivery of the Alert Program® during this pilot. Relevance of the official online champions training was unable to be assessed as people only began to access this training in the final weeks of the pilot.

The programme delivery was efficacious in terms of kaiako reporting improved understanding the behaviour and social and emotional needs of tamariki, and frequent use of the Alert Program® strategies with tamariki. There were minimal recommendations to achieve consistent application of these practices.

This process evaluation sought to understand to what extent, and how, the pilot has supported building knowledge and practices within the ELS involved, acknowledging that training was still underway at the time of the evaluation. Effectiveness was assessed in terms of kaiako understanding and utilising the Alert Program® strategies within their ELS.

Kaiako responding to the survey agreed that they had built their knowledge and confidence around the Alert Program. Most kaiako also reported being better able to understand the behaviour and social and emotional needs of tamariki. For example, understanding how tamariki display emotions in different ways, and learning about

tamariki's sensory preferences. However, the findings suggest there is room to embed the concepts and confidence further among kaiako in these ELS.

The results suggest that many kaiako are using the Alert Program® strategies daily with tamariki. Some of the strategies in the Alert Program® (e.g., role modelling and sensory tools) were already being used by some case studies, and the delivery of the Alert Program® has added a more nuanced and intentional approach to these strategies. There was a sense from programme providers and interviewees that additional implementation may have been observed had this process evaluation been conducted later.

Follow-up support, opportunities to view OTs role modelling the strategies, access to sensory resources and access to the online training appear to be important for building kaiako confidence and increasing the number of kaiako who are implementing the Alert Program® practices daily.

Consideration 5. Offer follow-up support to kaiako to support them to build confidence and develop their practice over an additional 6-12 months.

The programme was scalable beyond the pilot with minor tweaks to the delivery model including additional follow-up support.

OTs provided some training in the Alert Program® to all staff and more intensive training or support was accessed by a select group of staff. This mixed model of delivery supported a base level of understanding among all staff, whilst enabling some people to advance their practice further. This model has advantages over a purely champion-led model in terms of programme uptake and sustainability.

Working with a kāhui ako or a group of centres under the same management umbrella supported more straightforward recruitment of centres and has the potential to support collaborative learning, contingent on centres having the time and mechanisms to collaborate. Kaiako valued opportunities to discuss the concepts with each other and colleagues in other centres. Forums to enable such communication may support further embedding of the programme and/or delivery of the initial training to future centres.

Consideration 6. Delivery to groups of centres with existing mechanisms for collaboration can support recruitment and programme uptake and may have benefits for ongoing sustainability.

There was mixed feedback on the impact of the time demands on use of the programme within ELS, although many centres identified competing priorities and challenges that may impact on uptake of the online training.

Consideration 7. Monitor uptake of the online training to check feasibility of this aspect of the programme, given concerns about the time demands of this component. Explore whether the shorter (8 hour) online training model provides sufficient information for kaiako.

The programme delivery emerged and developed over the course of the pilot. Work has since been done to provide additional information to ELS about the structure and objectives of the programme. Greater guidance about which adaptations may be most useful in a preschool setting may also be useful. Delivery and adaptation in the ELS resulted in a variety of different models of implementation, with differing degrees of emphasis on role modelling vs a focus on tamariki understanding the concepts.

Consideration 8. An agreed definition of essential delivery in this age group, and a consistent set of resources across the regions would support consistency and embedding of the Alert Program® moving forward.

ELS also requested earlier access to funding for the resources so they could be using these earlier in the programme and/or another system of enabling services to purchase resources, as well as opportunities to test out some of the more expensive resources before purchasing. Solutions for earlier distribution of funding have now been identified.

Consideration 9. Consider the feasibility of loaning out more expensive resources for centres to try.

Additional follow-up support for centres beyond the end of the pilot will be important for building kaiako confidence and embedding centre practices.

See Consideration 5.

Whānau had limited engagement with the Alert Program® during the pilot and ELS would like more support in this area. Given that tamariki at this age need support to self-regulate their arousal, the benefits of the programme for a whānau setting will depend on educating whānau in the programme analogy and strategies.

See Consideration 3.

OTs are essential to the future delivery of the programme content in ELS, at a minimum in terms of supervising those delivering the programme. The Alert Program® leader's manual states that individuals delivering the Alert Program® should be supervised by an occupational therapist. EITs and SLTs have the potential to support embedding of the strategies through integration within their delivery of targeted support to tamariki. To do this they will need to complete the online champion training and have access to supervision from OTs.

Consideration 10. The Ministry may want to further clarify the exact nature of these expectations, including whether there is a need for OTs to provide an ongoing point of support for kaiako, or whether others could support kaiako with this programme, provided they are supervised by an OT.

Considerations for an impact evaluation of the Alert Program® in ELS

In delivering the Alert Program® as a universal intervention to a preschool audience, the delivery extends beyond the original target group for the Alert Program® where the

intervention has previously been tested (primary school aged tamariki with sensory regulation challenges). As this evaluation did not focus on tamariki, it is not clear if they will benefit from the programme. If these benefits are assumed, it would be important to test these assumptions and estimate the impact of the programme on tamariki and the benefits on learning and the broader society.

1. Clarify intended outcomes of a programme in this age group, including whether these include self-regulation benefits for tamariki in ELS, and whether self-regulation benefits may extend to other settings.
2. Assuming that improving the self-regulation of tamariki in this age group is the desired outcome of the delivery in ELS, appropriate validated measures of self-regulation should be employed to support the credibility of the findings. The BASC-3 contains several behaviours that could theoretically be impacted by disruptions in arousal level that co-regulation could improve. For example, questions ask about the frequency with which a child pays attention, has trouble staying seated, is overly active, or acts out of control. The SDQ is a similar measure and is also familiar to kaiako.
3. An impact evaluation should include some form of control group, most feasibly a waitlist design. This would enable an impact evaluation to identify programme benefits that exist over and above typical improvements over time.
4. Assess differential effects of the programme for children by age. To estimate how many tamariki are being benefitted through programme delivery, the Ministry needs to understand which age groups benefit from the programme.
5. Include a measure of implementation fidelity as programme delivery varies between centres and delivery levels will impact any outcomes observed.

APPENDICES / ENDNOTES



Appendix A

Evaluation criteria rubrics

The following rubrics were applied to assess the gathered evidence and make judgments about the relevance, effectiveness and scalability of the Alert Program® pilot in ELS.

Table A1: Performance of the Alert Program® in ELS pilot according to the relevance criteria

Criteria	Did not meet expectations	Met expectations	Exceeded expectations
Relevance	The Alert Program® is rarely relevant to people (tamariki, kaiako, Ministry), and the NZ context.	The Alert Program® is potentially relevant to people (tamariki, kaiako, Ministry), and the NZ context.	The Alert Program® is consistently relevant to people (tamariki, kaiako, Ministry), and the NZ context.

Table A2: Performance of the Alert in ELS pilot according to the effectiveness criteria

Criteria	Did not meet expectations	Met expectations	Exceeded expectations
Effectiveness	The Alert Program® rarely achieves the desired goals, and few changes in relation to kaiako social and emotional abilities are evidenced. Programme changes are unlikely to generate consistent application of these practices.	The Alert Program® achieves the desired goals, and evidence demonstrates some changes in relation to kaiako social and emotional abilities, albeit inconsistently or requiring substantial shifts in design or delivery to achieve consistent application of these practices.	The Alert Program® consistently achieves the desired goals, making large shifts in relation to kaiako social and emotional abilities with minimal or no recommendations to achieve consistent application of these practices.

Table A3: Rubrics to assess the scalability of the programme

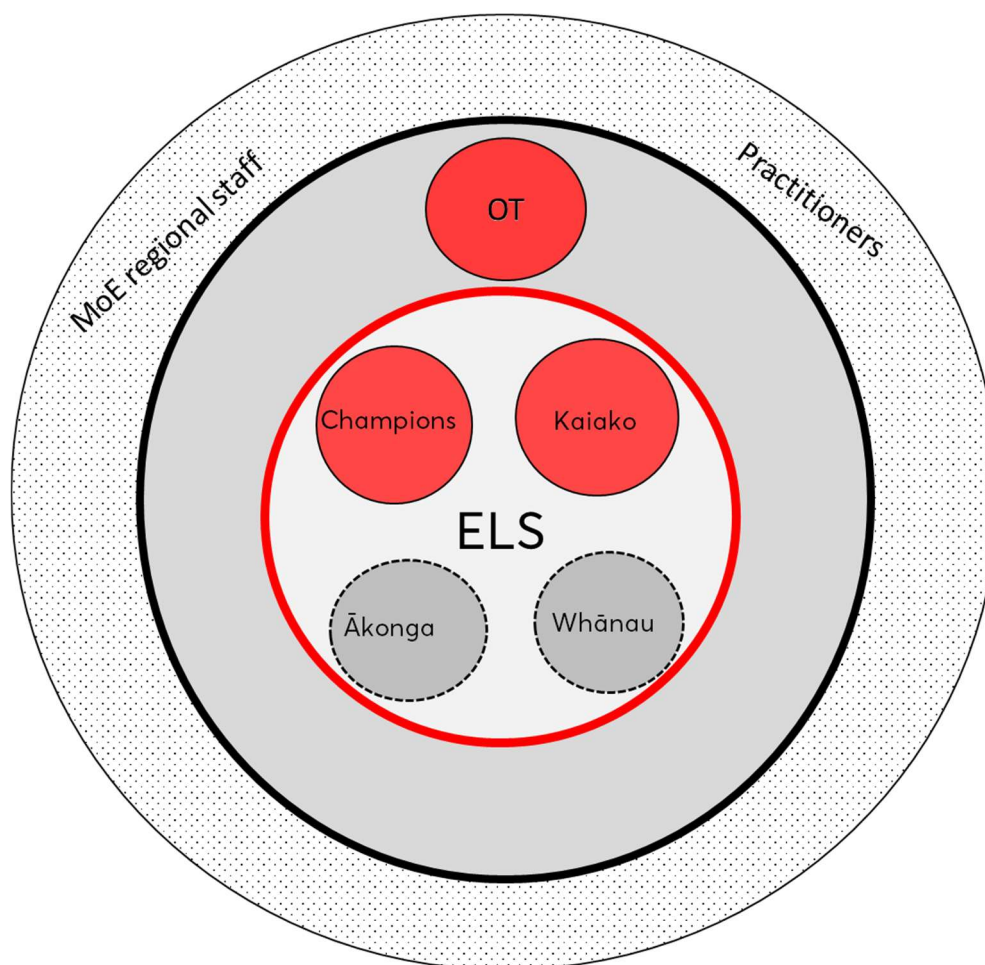
Criteria	Did not meet expectations	Met expectations	Exceeded expectations
Scalable	The Alert Program's delivery is rarely possible and can rarely expand beyond the pilot given implementation requirements and workforce capacity.	The Alert Program's delivery is potentially possible with the given workforce capacity and implementation requirements.	The Alert Program's delivery in ELS is possible with minimal or no adaptations to the pilot programme. Delivery can expand beyond the pilot given the workforce capacity and implementation requirements.

Approach/method

This process evaluation used a mix of qualitative and quantitative methods to answer the evaluation questions. The evaluation sample included all individuals who participated in the Alert Program® training.

Case studies were conducted in three early learning centres to gather an in-depth understanding of implementation. With the case studies we sought to understand how and how well the Alert Program® has been adapted and integrated into the ELS environments, and how well the pilot has supported building knowledge and practices in the area of social and emotional learning. Case studies also allowed us to examine the collaboration between the OT, Ministry, SLT/EIT, centre kaiako and others in delivery of the Alert Program® pilot.

Figure 10: An early learning service as a focus for the case study approach, including information from kaiako, champions within the service, the OTs providing support, as well as those key stakeholders supporting the service more broadly



Eighteen semi-structured case study interviews were held with between five and eight interviewees per case study. In total across the case studies we held three interviews with Ministry regional staff, three with Ministry occupational therapists, three with Ministry

early intervention teachers or speech and language therapists and eight with early learning service kaiako, including two with individuals who had not directly experienced the training. Centres who had engaged well with the programme were selected as case studies to gain a richer picture of how the programme was working when it was working well, but these case studies are not necessarily representative. Interviews were conducted between March and early May, concurrent to delivery of the programme by OTs.

Survey method

The questionnaire was set up to be administered online and physically via paper copies. The evaluation team used the online software [LimeSurvey](#) in a paid subscription with Australia as the hosting server location to administer the questionnaire. The questionnaire was only accessible to individuals who received email invitations with the URL, or paper copies via courier. These emails and paper copies were delivered via the regional occupational therapists who had developed relationships with the participants through delivering the pilot. The survey was administered in late May/early June.

Programme participants were defined as those who had taken part in Alert Program® training in the pilot. As all programme participants were invited to partake in the survey it is a census approach. In total there were 58 complete responses from the online questionnaire and 10 paper copy responses. The overall response rate was approximately 48%.

Note on survey bias

The survey took a census approach. This means that all programme participants were invited to participate in the survey and there is no sampling bias. However there is missing information from those who chose not to participate. While the nature of the non-response remains unknown, the knowledge of those who did not respond to the survey is likely to be different to those who did respond. This means there is potential for bias in the survey results, and they should be interpreted with this in mind.

Methods were taken to increase the response rate of the survey, including:

- donating \$10 to charity for each submission
- distributing the questionnaire through the OT who had a relationship with the participants
- sending follow-up reminders via email and in some instances calling ELS to remind them to participate.

Who participated in the survey?

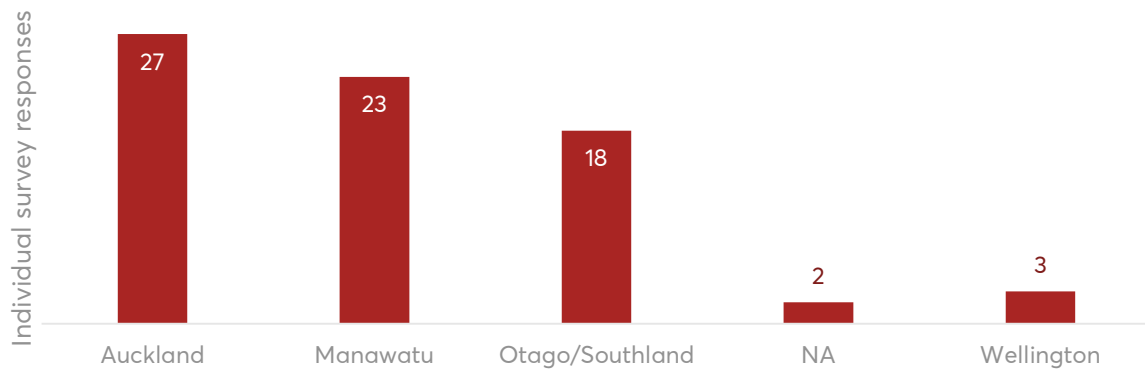
In total 31 ELS received the Alert Program® in ELS pilot programme. Across these services approximately 154 staff members received training and subsequently were invited to take part in the survey.

73 individuals responded to the survey, indicating an estimated response rate of 47%. These numbers are estimated as contacts within each ELS shared the survey with their

staff.⁴⁹ Responses came from at least 25 distinct ELS of the 32 who were involved in the pilot at the time of the survey. There were 15 survey responses where the ELS name was not identified, meaning the number of services responding to the survey may be greater than 25.

Figure 11: Survey responses by region

Survey respondents by region



⁴⁹ The exact figures for response rates are unknown as services distributed the survey to their staff internally and sometimes included staff who had attended a single meeting but had not been identified by OTs as attending the training. We identified three instances in which the survey was shared wider than the main group trained by the OT, in these instances we increased the staff to the total number of staff in these centres.

Appendix B

Interview guides

Interview guides for OT, ELS kaiako, Ministry regional staff, and Ministry learning support staff (early intervention teachers, speech and language therapists, where relevant).

Eval. Criteria	Occupational therapist	ELS kaiako
N/A	<p>How have you become a part of this pilot?</p> <p>How would you describe your role in the Alert Program® pilot?</p> <p>Recruitment:</p> <ul style="list-style-type: none"> How easy or difficult has it been to find a suitable OT to deliver the pilot? <ul style="list-style-type: none"> Why do you think it has been easy/difficult? How easy or difficult has it been finding ELS to participate in the pilot? <ul style="list-style-type: none"> Why do you think it has been easy/difficult? How have the kaiako (aka champions) been selected to be trained in the Alert Program®? 	<p>How have you become a part of this pilot?</p> <p>How would you describe your role in the Alert Program® pilot?</p>
Effectiveness		<p>Building knowledge and practices:</p> <ul style="list-style-type: none"> What did you know about social and emotional learning prior to the pilot? What do you know about the Alert Program®? <ul style="list-style-type: none"> Sensory modulation? <p>Engine analogy?</p> <p>Building knowledge and practices:</p> <ul style="list-style-type: none"> Have you been regularly using self-regulation, co-regulation and/or sensory modulation practices with your tamariki before the pilot? How has the pilot helped improve these practices? Has the pilot changed your behaviours or the behaviour of your tamariki? <p>If yes, pls explain what behaviours and how it has changed.</p>

Relevance	Prog. delivery: <ul style="list-style-type: none"> • What training and support has been provided as part of the pilot? • How has the training and support been delivered? • What aspects of the training or support have been working well? • What aspects could be improved? • In your opinion, how well has the training and support prepared kaiako to implement the Alert Program® in their ELS? 	Prog. delivery: <ul style="list-style-type: none"> • What training and support has been provided as part of the pilot? • How has the training and support been delivered? • What aspects of the training or support have been working well? • What aspects could be improved? <p>In your opinion, how well has the training and support prepared kaiako in your centre to implement the Alert Program® in your ELS?</p>
Relevance	Prog. adapted to NZ/local context: <ul style="list-style-type: none"> • What aspects of the programme have you adapted to fit the NZ context? • Can you provide us with some examples (e.g. photos of visuals, language used, etc.)? 	Prog. adapted to local context – tamariki: <ul style="list-style-type: none"> • Please describe the range of tamariki in your ELS (e.g. ages, developmental stages, neurodiversity). • How have you adapted/are planning to adapt the Alert Program® to fit the diversity of tamariki needs in your ELS? • Can you provide us with some examples (e.g. photos of visuals, language used, activities, etc.)? • Are there any other aspects of the programme you would like to adapt? <p>If YES: Which aspects would that be? What would you like to do? Why do you think this would be beneficial? Why haven't you adapted this, yet?</p>
Relevance		Prog. integration into ELS environments: <ul style="list-style-type: none"> • Pls describe how you have been integrating the Alert Program® into your daily routines. • How easy or difficult is it to embed the Alert Program® language and strategies in your ELS? <ul style="list-style-type: none"> ○ Why do you think it has been easy/difficult? • How well does the Alert Program® fit into your local curriculum? Do you have an example? <p>In your opinion, how culturally responsive are adapted Alert Program® practices considering your tamariki?</p>
Relevance	Prog. Integration into Ministry service delivery: <ul style="list-style-type: none"> • Pls describe how you have been integrating the Alert Program® into existing service delivery. 	

	<ul style="list-style-type: none"> What has been working well? What has been challenging aligning the Alert Program® with other activities? 	
Scalability	<p>Requirements capacity and coverage:</p> <ul style="list-style-type: none"> From your experience, what does it take to deliver the Alert Program® pilot as intended (e.g. universal support), in terms of: <ul style="list-style-type: none"> Time inputs? Human resources? Behaviours and attitudes (from ELS, kaiako, Ministry) On average, how many hours in a week have you been investing in implementing the Alert Program®? What other resources are required to implement the pilot? From your experience, are these resources available? 	<p>Requirements capacity and coverage:</p> <ul style="list-style-type: none"> From your experience, what does it take to deliver the Alert Program® pilot as intended (e.g. universal support), in terms of: <ul style="list-style-type: none"> Time inputs? Human resources? Behaviours and attitudes (from ELS, kaiako, Ministry) On average, how many hours in a week have you been investing in implementing the Alert Program®? What other resources are required to implement the pilot? <p>From your experience, are these resources available?</p>
Scalability	<p>Requirements ongoing support:</p> <ul style="list-style-type: none"> What do you think ELS will require in terms of ongoing support beyond the pilot to sustain the practice of the Alert Program®? 	<p>Requirements ongoing support:</p> <p>What do you think your ELS will require in terms of ongoing support beyond the pilot to sustain the practice of the Alert Program®?</p>
Relevance/ scalability	<p>Collaboration around delivery – cluster approach and networks:</p> <ul style="list-style-type: none"> Pls describe how you have been collaborating with different people and groups to implement the Alert Program® in the ELS. <ul style="list-style-type: none"> Who have you been working with? What have you been working on? In what frequency have you been working with them? Are you sharing or exchanging your knowledge, experiences or any data related to the pilot with relevant people or groups? <ul style="list-style-type: none"> What do you share or exchange? Who do you share or exchange it with? What do they share or exchange with you? In your opinion, how well has the cluster approach supported the pilot delivery in ELS? 	<p>Collaboration around delivery – cluster approach and networks:</p> <ul style="list-style-type: none"> Pls describe how you have been collaborating with different people and groups to implement the Alert Program® in the/your ELS. <ul style="list-style-type: none"> Who have you been working with? What have you been working on? In what frequency have you been working with them? Are you sharing or exchanging your knowledge, experiences or any data related to the pilot with relevant people or groups? <ul style="list-style-type: none"> What do you share or exchange? Who do you share or exchange it with? What do they share or exchange with you? <p>In your opinion, how well has the cluster approach supported the pilot delivery in ELS?</p>

N/A		<p>Existing data collection practices:</p> <ul style="list-style-type: none"> Are you currently using any assessment tools to collect information on social and emotional learning? (e.g. He mapuna te temaiti self-assessment tool) <ul style="list-style-type: none"> If yes, which ones? <p>Have you found any improvements since implementing the Alert Program® in your ELS?</p>
N/A		<p>Data collection opportunities and feasibility:</p> <ul style="list-style-type: none"> Would you be interested in using assessment tools to find out whether the Alert Program® is making any difference to your ELS and tamariki? Do you think you or your colleagues would have the capacity to facilitate such assessments? <p>How do you think such assessments could be best done in your ELS?</p>

Eval. Criteria	MoE regional staff and learning support staff
N/A	<p>How have you become a part of this pilot?</p> <p>How would you describe your role in the Alert Program® pilot?</p>
N/A	<p>Recruitment:</p> <ul style="list-style-type: none"> How easy or difficult has it been to find a suitable OT to deliver the pilot? <ul style="list-style-type: none"> Why do you think it has been easy/difficult? [regional staff only] How easy or difficult has it been finding ELS to participate in the pilot? <ul style="list-style-type: none"> Why do you think it has been easy/difficult? How have the kaiako (aka champions) been selected to be trained in the Alert Program®? [regional staff only]
Relevance	<p>Prog. Integration into Ministry service delivery:</p> <ul style="list-style-type: none"> Pls describe how you have been integrating the Alert Program® into existing service delivery. What has been working well? What has been challenging aligning the Alert Program® with other activities?
Scalability	<p>Requirements capacity and coverage:</p> <ul style="list-style-type: none"> From your experience, what does it take to deliver the Alert Program® pilot as intended (e.g. universal support), in terms of: <ul style="list-style-type: none"> Time inputs? Human resources? Behaviours and attitudes (from ELS, kaiako, Ministry)

	<ul style="list-style-type: none"> • On average, how many hours in a week have you been investing in implementing the Alert Program®? • What other resources are required to implement the pilot? • From your experience, are these resources available?
Relevance	<p>Collaboration around delivery – cluster approach and networks:</p> <ul style="list-style-type: none"> • Pls describe how you have been collaborating with different people and groups to implement the Alert Program® in the/your ELS. <ul style="list-style-type: none"> ○ Who have you been working with? ○ What have you been working on? ○ In what frequency have you been working with them? • Are you sharing or exchanging your knowledge, experiences or any data related to the pilot with relevant people or groups? <ul style="list-style-type: none"> ○ What do you share or exchange? ○ Who do you share or exchange it with? ○ What do they share or exchange with you? • In your opinion, how well has the cluster approach supported the pilot delivery in ELS?

Alert Pilot in ELS survey

1. The Alert training has been...

(Please tick ONE response per row)

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
relevant to my role						
implemented in a way that was culturally enhancing and responsive						
presented in a way that could be flexibly applied within our local curriculum						
presented in a way that could be integrated with our use of te reo Māori and tikanga						
feasible in terms of the amount of time involved in training						

2. Following the Alert training and support provided so far I...

(Please tick ONE response per row)

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
understand the theoretical concepts of high, low, "just right" engine/Alert levels						
better understand the social and emotional needs of my tamariki						
better understand the behaviour of my tamariki						
am confident using the engine/Alert analogy in my interactions with tamariki						

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
am confident to pass on what I have learnt so far about the Alert Program® language and strategies to others in my centre						

3. In the last week how frequently did you...

(Please tick ONE response per row)

	Multiple times a day	Daily	Multiple times a week	Once a week	Never	Not yet covered in my training
support tamariki to identify their own engine/Alert levels						
role-model managing my own self-regulation with tamariki						
select appropriate sensory strategies/tools to help tamariki regulate their engine/Alert levels						
adapt the centre environment, tasks or my approach to support tamariki to regulate their engine level (e.g. turning off lights, speaking quietly)						
support tamariki to initiate strategies to regulate their engine/Alert levels						

4. At my ELS we adapted the Alert Program® to the local centre's context by...

- ☐ Adapting the engine/Alert language to include te reo Māori
- ☐ Adapting the engine/Alert language for the age group of our tamariki
- ☐ Adapting the engine/Alert language for the culture/s of the tamariki attending our centre
- ☐ Adapting the type of sensory tools and activities to the culture/s of the tamariki attending our centre e.g. poi, origami
- ☐ Adapting the type of sensory tools and activities to be more relatable to the age group of our tamariki e.g. age-appropriate toys
- ☐ Utilising sensory tools already available in our centre
- ☐ Other (please describe) _____
(Please tick ALL that apply)

5. What approach(es) has your centre used to teach tamariki the Alert Program®? *(Please tick all that apply)*

- ☐ We focused on kaiako's own self-regulation and role modelling this to tamariki
- ☐ Discussed the programme concepts informally with tamariki through everyday activities
- ☐ Taught the programme concepts to tamariki through formal learning e.g. circle time activities

6. Please describe the training and support you personally have received as part of the Alert Program® pilot

(e.g. how many online/face-to-face/mixed training sessions, site visits, other forms of information received).

7. What was most useful, and why?

8. What was not useful, and why?

9. What further support do you need to successfully implement Alert strategies in your centre?

10. Where in New Zealand are you located?

(Please tick **only one** of the following)

☐ Manawatū ☐ Auckland ☐ Otago/Southland

11. What is the name (or Ministry of Education service number) of your early learning service?

12. Do you have any other comments you would like to share about the training or the Alert Program® more generally?

Appendix C

Technical description of the sample size calculations

Sample size calculation for an assessment of changes in self-regulation for individual learners (e.g. using the BASC-3 short form)

Sample size for an assessment of change in tamariki self-regulation based on individual student measurements was estimated using a mixed effects model that contained 6 predictor variables (treatment, Māori, age, sex, region, school). Power was estimated given $1-\beta = 0.80$; $\alpha = 0.0083$ (Bonferroni correction accounting for 6 analyses: 3 wellbeing outcomes and 2 groups – age and overall). The model was estimated under the following assumptions; equal allocations to treatment and control groups; that the predictors have no predictive power; normality of outcome variables and 60 different ELS. **Under these conditions a sample size of 300 learners is required for each group to detect a small/medium effect size of $d=0.3$, and a larger sample of 650 learners for each the treatment and control group would be required to detect a small effect size ($d = 0.2$).**

Sample size calculation for an assessment of changes in ELS or classroom-level measure of self-regulation

Sample size for a school level approach was estimated using a linear model that contained 5 predictor variables (treatment, Māori, age, sex, region). Power was estimated given $1-\beta = 0.80$; $\alpha = 0.0166$ (Bonferroni correction accounting for 3 analyses: 3 wellbeing outcomes and 1 group – overall). The model was estimated under the following assumptions; equal allocations to treatment and control groups; that the predictors have no predictive power and normality of outcome variable. **Under these conditions a sample of 250 ELSs would be required for each group to detect a small/medium effect size of $d=0.3$. whereas a sample size of 520 ELSs for each the treatment and control group would be required to detect a small effect size ($d = 0.2$).**

Appendix D

The following measures are designed to assess self-regulation, have been assessed for validity and reliability, and are suitable for children under 5. This is not an exhaustive list of every tool to assess social emotional competencies, but it does include the major commonly recommended tools.

Table D1. Measures of social and emotional competencies

Measure	Summary	Other considerations	Reliability information	Time needed	Free?
Behavior Assessment System for Children, Third Edition (BASC – 3)	<p>This can be used to assess self-regulation, and can be grouped into different subscales (e.g. attention, hyperactivity). Parent and teacher report versions are available for this age group.</p> <p>Age 2+</p>	<ul style="list-style-type: none"> - It has been used previously in research to identify a change in outcome after a 10 week long self-regulation programme for young children. - NB a BASC observation tool exists but this has poorer reliability than the parent and teacher report measures. 	<ul style="list-style-type: none"> - Good internal consistency (80+). Good test-retest reliability (mid 80's to mid 90's). - Mixed inter-rater reliability (.18 to .82)⁵⁰ 	109 items (approx. 30 minutes)	No
BASC-3 Behavioural and Emotional Screening System Teacher form	This is a screening tool developed from the larger BASC and used by teachers.	<ul style="list-style-type: none"> - This appears to be also used in the Plunket b4 school check, but the data is not captured in the IDI. 	<ul style="list-style-type: none"> - Excellent internal consistency (.96) and good test retest reliability (.80) in a preschool sample.⁵¹ 	25 items (approx. 5-10 minutes)	No

⁵⁰ TestReview: Reynolds, C. R., & Kamphaus, R. W. (2004). Behavior assessment system for children (2nd ed.). Circle Pines, MN: American Guidance Service.

⁵¹ Yanosky DJ, Schwanenflugel PJ, Kamphaus RW. Psychometric Properties of a Proposed Short Form of the BASC Teacher Rating Scale–Preschool. *Journal of Psychoeducational Assessment*. 2013;31(4):351-362. doi:[10.1177/0734282912456969](https://doi.org/10.1177/0734282912456969)

Measure	Summary	Other considerations	Reliability information	Time needed	Free?
Strengths and Difficulties Questionnaire (SDQ)	<p>This can be used to assess self-regulation, and can be grouped into different subscales. Parent and teacher report versions are available for this age group.</p> <p>Age 2+</p>	<ul style="list-style-type: none"> - This is being used as part of the Plunket B4 School Check and is captured in the IDI but the IDI does not contain the ELS attended by each student. - The tool is comprehensive and ELS are already familiar with it. - It may have limited acceptability to teachers; one New Zealand study noted that 48% of the teacher completed-SDQ results in the Plunket B4 school check have declined, non-applicable or missing outcomes.⁵² 	<ul style="list-style-type: none"> - Adequate to good test-retest reliability (range from 0.57 to 0.82). Test retest reliability was higher among Teacher reports (.65-.80) - Adequate to good internal consistency (0.88 to 0.57). The internal consistency is higher for teacher reports. - Poor to adequate inter-rater reliability between parent and teacher reports Spearman inter-rater correlations ranged from 0.25 to 0.48 (Goodman, 2001). 53 	25 items (approx. 5-10 minutes)	Yes
Social skills improvement system	<p>There are seven subscores: Self-awareness, Self-management, Social awareness, Relationship skills, Responsible decision making, Academic skills and Core skills.</p> <p>Age 3+</p>	<ul style="list-style-type: none"> - Parent and teacher report versions are available for this age group. 	<ul style="list-style-type: none"> - The internal consistency was good 0.93.⁵⁴ - Test-retest reliability was good 0.89. 	83 items (Approximately 15-20 minutes)	No

⁵² Richards, N., Reith, D., Stitely, M., & Smith, A. (2019). NZMJ, 132, No 1496

⁵³ Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. Journal of the American Academy of Child and Adolescent Psychiatry. 4, 11, pp.1337-1345.

⁵⁴ Gresham, F. M., & Elliott, S. N. (2008). Social skills improvement system: Rating scales. Bloomington, MN: Pearson Assessments.

Measure	Summary	Other considerations	Reliability information	Time needed	Free?
Tests of neuro-psychological functioning e.g. NEPSY-II, tests of comprehension, design-copying, working memory	A number of tools exist that score children's behaviour on specific tasks designed to test aspects of cognitive self-regulation	<ul style="list-style-type: none"> - Typically focus on a competent of self-regulation/social and emotional competencies - Can involve expensive licencing - Typically administered by psychologists/clinicians. - Objective measures of specific aspects of self-regulation 	<ul style="list-style-type: none"> - Varies 	Varies e.g. NEPSY- II can take 45-90 minutes per child ⁵⁵	No
Head-Toes-Knees-Shoulders (HTKS) and a revised HTKS-R	<p>This tool aims to measure behavioural self-regulation (capturing aspects of attention, working memory and inhibitory control). ⁵⁶ Children are asked to respond to requests A (e.g., "touch your head" and "touch your toes") by touching a different part of their body.</p> <p>Ages 3/4+</p>	<ul style="list-style-type: none"> - Recommended age 4-8 (or 3-7 for the HTKS-R) - Focuses on a narrow aspect of self-regulation (behavioural self-regulation) - Relatively objective measure - Could be implemented by an external party - Predictive of later behaviour-regulation (rated on a validated measure) - Available for research only - Scores correlated with classroom achievement and parent and 	<ul style="list-style-type: none"> - Authors argue this has good internal reliability 	5-7 minutes	Yes

⁵⁵ Korman, M., Kirk, U., & Kemp, S.(2007). *NEPSY second edition*. <https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Academic-Learning/Brief/NEPSY-%7C-Second-Edition/p/100000584.html>

⁵⁶ Ponitz, C. C., McClelland, M. M., Matthews, J. S., & Morrison, F. J. (2009). A structured observation of behavioral self-regulation and its contribution to kindergarten outcomes. *Developmental Psychology*, 45(3), 605–619. <https://doi.org/10.1037/a0015365>

Measure	Summary	Other considerations	Reliability information	Time needed	Free?
		teacher reports of behaviour self-regulation			
Day night stroop task	<p>Assessment of inhibitory control in which children are asked to say the opposite (e.g. "day" for a moon, "night" for a sun)</p> <p>Age 3+</p>	<ul style="list-style-type: none"> - The HTKS seems to be the preferred alternative by many researchers. 	Unknown	Unknown	Unknown



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people
access and
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evidence**



INCREDIBLE BEGINNINGS PILOT PROCESS EVALUATION

Authorship

Standard of Proof was created out of passion. Passion for making a difference, for making the lives of individuals, communities and organisations better through evidence. We pride ourselves on providing the highest standard of evidence that is appropriate and useful for the context.

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EXECUTIVE SUMMARY

Incredible Beginnings (IB) is part of the Incredible Years® (IY) suite of programmes developed in the United States for caregivers, tamariki and teachers. Guided by developmental theory, Incredible Years® programmes are designed to promote emotional, social and academic competence, and to improve communication skills in young tamariki. IB is the latest addition to the Incredible Years® series and provides a training programme for teachers and childcare providers working with tamariki aged 1-5 years. From early 2022, the Ministry sought to adapt the programme to the New Zealand context and pilot this by delivering 16 programmes across four regions.

The Ministry of Education (Ministry) commissioned Standard of Proof to undertake an evaluation of this IB pilot programme. The Ministry Te Pae Aronui wanted to understand the effectiveness of the pilot implementation process at its different stages, and how the programme's content and services are relevant and efficacious for the early learning sector. They wanted to learn from this pilot experience to inform the design of any future initiatives and programmes that aim to strengthen the social and emotional learning of tamariki in early learning services (ELS).

KEQ1. How well has the programme been implemented?

The IB pilot programme was recruiting and operating throughout the COVID-19 pandemic in New Zealand. This meant that recruitment of the education workforce as well as engagement with the pilot programme was particularly challenging. Nevertheless, the Ministry successfully recruited 14 experienced IY facilitators to become group leaders. Knowing that IB could be effective within this context was also important, and required a degree of trust at this pilot stage of the programme.

In the first stage, training required group leaders to learn the IB content alongside adapting this for the local context. Adapting the programme required deep knowledge of the local context and New Zealand resources, while training as a group helped to contextualise IB. Nevertheless, some thought that more adaptations were required by the end of the training. Securing more time for group leaders to learn and adapt the IB programme, and making clear what can and cannot be adapted with IB would enhance the training for any subsequent cohort.

Group leaders were then expected to recruit between 13-15 participants per programme, of which at least 80% of participants identified as Māori and/or Pacific, and deliver the programme, again within the Covid-19 environment. The group leaders successfully recruited and enrolled at least 90 ELS and 195 participants in the IB pilot programme across the four regions. Although the overall target was not achieved, a high proportion of participants (57%) identified Māori or Pacific as at least one of their ethnicities. This proportion varied considerably by region/provider. The pilot experience suggests that a personalised approach with ELS, broad engagement methods as well as the group leaders' existing connections and established trust within these communities supported successful recruitment with this target audience.

Sixteen programmes were delivered in the initial cohort, each delivering in unique ways in terms of duration, delivery times and delivery modes. There does not appear to be one ideal way of delivering IB to New Zealand ELS as both night and day-time delivery, as well as online and face-to-face delivery posed unique challenges. Attendance was reasonably high across the cohort. Group leaders reported delivering with fidelity to the content, principles and structure of IB, although resources were used selectively to tailor learning for participants.

The combination of New Zealand resources and participant training were helpful for kaiako to understand and apply IB within their ELS. Group leader support and coaching was useful to enhance practices. If the pilot programme resources and learning are systematically pulled together into a package relevant to New Zealand, it is expected that the time required of group leaders will reduce. After these adaptations are agreed, a formal impact evaluation would be required. Recruiting the specific target groups will become easier, and less reliant on trust and connections, if there are demonstrable benefits for Māori and Pacific tamariki and their whānau. Until then, scalability will be more limited.

KEQ2. How well has the programme been adapted to the New Zealand and local context?

Te Whāriki is the New Zealand Early Learning Education curriculum. Te Kōrerorero is a New Zealand resource that promotes effective teaching practices so that kaiako and teaching teams can strengthen how they support the oral language across children's language pathways. Most relevant to IB, He Māpuna te Tamaiti is a New Zealand resource that focuses explicitly on guidance for developing social and emotional competence within ELS.

IB aligns well with He Māpuna te Tamaiti. IB provides specificity across a number of actions that He Māpuna te Tamaiti is endorsing and provides specific strategies for kaiako to action the principles of He Māpuna te Tamaiti. These strategies focus on building positive relationships with toddlers and managing separation anxiety, promoting language development in toddlers and pre-schoolers, social coaching with toddlers and pre-schoolers, emotion coaching with toddlers and pre-schoolers, the proactive teacher and positive behaviour management. Integration of the programme including the resources is nonetheless required to highlight relevance to New Zealand ELS, and 'fit' within the New Zealand context.

Group leaders adapted IB by connecting and translating the content to the New Zealand resources, including Te Whāriki, He Māpuna and Te Kōrerorero, and weaving karakia (prayer), tikanga (practices) and waiata (song) into the pilot programme. The group leaders also selected content for training and the delivery approach, and adapted the forms, thereby making the programme more manageable and meaningful for participants. Adaptations like this required deep content knowledge as well as facilitator expertise. Nevertheless, most still thought the pilot programme would benefit from further adaptations, such as broad translation, New Zealand examples used throughout the course, and systematic links made to the relevant New Zealand documents.

ELS participants in turn further integrated local context into the strategies and resources. For instance, they translated resources, made relevant visuals and integrated local resources reflective of the bicultural nature relevant to New Zealand.

Integration of te ao Māori and Pacific ways, and more specifically respecting Māori and Pacific values (e.g. whakawhanaungatanga, teu le vā), language and cultural norms allowed for deep and open sharing, honest reflections and learning. This respectful approach to engaging and learning was believed a necessary precursor to participants integrating practices.

KEQ3. How well are ELS set up to effectively practice IB strategies in their centres?

Participants, for the most part, were confident in implementing the IB strategies and embedding practices relevant to social emotional learning in their centres. Most interestingly, participants completed the He Māpuna te Tamaiti self-assessment tool at the beginning and end of the training. Between these assessments, participants made a significant improvement towards embedding practices relevant to building social and emotional competence. The participants reported more embedded practices in relation to a *focus on tamariki* (e.g. positive relationships, self-worth, empathy, management), a *focus on environment* (e.g. positive climate, space and routines, values and expectations) and *managing behaviours* (e.g. positive behaviour, regulating emotions). What was interesting is that those ELS that trained two or more individuals realised a greater shift towards more embedded practices, at least insofar as a focus on the environment and managing behaviour, than those that trained as an individual from one ELS.

Further, kaiako intend to continue to use the strategies after the IB training sessions are finished. Given this intention and confidence, and the early change in practices, we expect that kaiako would continue to practice IB strategies in their ELS and achieve any benefits associated with these practices.

INTRODUCTION

Social and emotional learning in New Zealand

Social inclusion goals seek to improve the conditions under which individuals and groups take part in society such as by improving skills that support participation and reduce discrimination.¹ Social inclusion is at the core of the United Nation's 2030 Agenda for Sustainable Development. It has also become a priority for several national and multinational political agendas over the last few decades, including in the European Union, the United Kingdom and Australia. The Christchurch terror attack in 2019 prompted a stronger government focus on improving social cohesion and inclusion of New Zealand's diverse communities. In addition, since 2020, social distancing and lockdowns in response to the COVID-19 pandemic have created a social crisis and exacerbated social exclusion – particularly for vulnerable populations,² while taking a toll on mental health, including that of tamariki and adolescents.³

Social and emotional learning is recognised in the Child and Youth Wellbeing Strategy as a key contributor towards a socially cohesive society.⁴ Social and emotional learning and in particular early self-regulation are well established predictors of health and success in adulthood.⁵ To support long-term social inclusion and cohesion the Government is seeking to strengthen social and emotional learning (SEL) in an early childhood setting.⁶

The early childhood setting is considered a key opportunity to teach self-regulation skills. Self-control measured at age 3-5 predicts health and success in adulthood.⁷ Many tamariki make rapid gains in self-regulation during this time, however progress is not universal. These gains are important as self-regulation skills are expected to support tamariki functioning and capacity for learning in school settings.⁸ Thus teaching social and emotional skills, including self-regulation, from an early age can contribute to

¹ Based on The World Bank's definition of social inclusion (retrieved from <https://www.worldbank.org/en/topic/social-inclusion#1>). This definition has also been used by the NZ Ministry of Social Development in their rapid evidence review on Social inclusion in New Zealand (May 2020).

² The United Nations refer to the pandemic not just as a health crisis but also as a "human, economic and social crisis" (retrieved from <https://www.un.org/development/desa/dspd/everyone-included-covid-19.html>).

³ Panchal, U., Salazar de Pablo, G., Franco, M., Moreno, C., Parellada, M., Arango, C., & Fusar-Poli, P. (2021). The impact of COVID-19 lockdown on child and adolescent mental health: systematic review. *European child & adolescent psychiatry*, 1-27. <https://doi.org/10.1007/s00787-021-01856->.

⁴ Department of the Prime Minister and Cabinet. (2019). *Child and Youth Wellbeing Strategy*. <https://www.childyouthwellbeing.govt.nz/resources/child-and-youth-wellbeing-strategy#foreword-minister-for-child-poverty-reduction>

⁵ E.g. Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., ... & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the national Academy of Sciences*, 108(7), 2693-2698. <https://doi.org/10.1073/pnas.1010076108>.

⁶ Department of the Prime Minister and Cabinet. (2020). *Continuing Action to Improve Social Inclusion (CAB-20-SUB-0513 refers)*. <https://dpmc.govt.nz/sites/default/files/2020-12/CAB-20-SUB-0513-continuing-action-to-improve-social-inclusion.pdf>.

⁷ E.g. Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., ... & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the national Academy of Sciences*, 108(7), 2693-2698. <https://doi.org/10.1073/pnas.1010076108>.

⁸ Montroy, J. J., Bowles, R. P., Skibbe, L. E., McClelland, M. M., & Morrison, F. J. (2016). The development of self-regulation across early childhood. *Developmental Psychology*, 52(11), 1744-1762. <https://doi.org/10.1037/dev0000159>.

increased engagement in learning and positive relationships in both the short and long term.

In response, the New Zealand Government is investing in initiatives to improve social inclusion in New Zealand, including a trial to support young tamariki in ELS to develop capacities for self-regulation, resilience and social skills.^{9 10 11} Te Tāhuhu o te Mātauranga, the Ministry of Education (hereafter the Ministry) is piloting the Incredible Beginnings program® as one of three programmes aimed at strengthening social emotional learning (SEL) in early learning settings.^{12 13}

The Incredible Beginnings programme

Incredible Beginnings (IB) is part of the Incredible Years® suite of programmes developed in the United States for caregivers, tamariki and teachers. Guided by developmental theory, Incredible Years® programmes are designed to work jointly to promote emotional, social and academic competence, and to improve communication skills in young tamariki. IB is the latest addition to the Incredible Years® series and provides a training programme for teachers and childcare providers working with tamariki mokopuna aged 1-5 years.¹⁴

The programme is typically delivered in up to seven full-day workshops covering six different modules (see [Appendix A](#)), including:

1. building positive relationships with toddlers and managing separation anxiety
2. promoting language development in toddlers and pre-schoolers
3. social coaching with toddlers and pre-schoolers
4. emotional coaching with toddlers and pre-schoolers
5. the proactive teacher
6. positive behaviour management for toddlers and pre-schoolers.

To ensure the programme is implemented with the highest fidelity,¹⁵ group leaders delivering IB are required to undergo a process of Incredible Years® standardised training and peer coaching.

⁹ Department of the Prime Minister and Cabinet. (2020). *Continuing Action to Improve Social Inclusion (CAB-20-SUB-0513 refers)*. <https://dpmc.govt.nz/sites/default/files/2020-12/CAB-20-SUB-0513-continuing-action-to-improve-social-inclusion.pdf>.

¹⁰ MoE: Briefing to the Minister.

¹¹ Project Plan of Ministry of Education: Social and emotional learning in the early years: Adapting the Alert program® for all tamariki.

¹² Ministry of Education briefing note: *Strengthening social and emotional learning in early years settings to support social cohesion*, 22 April 2021.

¹³ A description and process evaluation of the other two programmes, Alert and ENGAGE, are outlined in separate evaluation reports.

¹⁴ For more information, see the official Incredible Years® website: <https://incredibleyears.com/programs/>.

¹⁵ Fidelity means here intervention integrity and refers to the degree of exactness with which group leaders adhere to the training programme model features with the goal of achieving the programme's desired outcomes. Webster-Stratton, C. (2016). The Incredible Years parent programs: Methods and principles that support program fidelity. In J.J. Ponzetti (Ed.), *Evidence-based parenting education: A global perspective* (pp. 143-160). New York: Routledge.

The Ministry has been offering Incredible Years (IY) basic programmes for parents and teachers since 2010, and Incredible Years Autism programmes for parents and teachers of tamariki aged 2-5 years on the autism spectrum since 2018. IB is the newest of the IY programmes to New Zealand. The Ministry and the international developer considered alignment between IB and the relevant New Zealand resources, such as *Te Whāriki* and *He Māpuna te Tamaiti*. From early 2022, the Ministry sought to adapt the programme to the New Zealand context and pilot this programme by delivering 16 programmes across four New Zealand regions. Māori and Pacific kaiako are underrepresented in the basic Incredible Years training so the Ministry wanted to test if the IB programme could be tailored specifically for Māori and Pacific kaiako.

The Ministry began by recruiting group leaders from its regional offices in the first instance, and then from other local external organisations. Recruited group leaders were trained via online platforms and communication channels by the programme developer and an international mentor. During this training, the group leaders along with the international developer began adapting the content to integrate New Zealand-specific early learning frameworks (such as [Te Whāriki](#) and [He Māpuna te Tamaiti](#)). It was expected that group leaders would develop an understanding of the programme content because of the training. It is also expected that group leaders would collaborate with each other in developing and exchanging resources and supporting each other in delivering IB programmes in a culturally responsive way. To this end, the Ministry hosted an induction hui before the training to help establish a community of IB practitioners, in addition to post-training workshops to develop a pool of resources available to group leaders. The Ministry further added resources to support IB delivery, such as the "How Do I Feel" book, *He Māpuna te Tamaiti* cards, *Te Korero* cards, brochures and tools such as poi and puppets.

Group leaders, in addition to training and adapting the programme, were responsible for recruiting participants from local ELS¹⁶ for their IB pilot programmes. As Māori and Pacific kaiako tend to be underrepresented in Incredible Years® teacher programmes, the Ministry set the expectation of a minimum of 13 and a maximum of 15 participants per programme, of which at least 80% of participants identified as Māori and/or Pacific to test IB with these target groups.

Group leaders were then expected to deliver the programme while adapting it further to integrate within the local curriculum. It was expected that participants attend all programme modules and learn new skills as part of this professional development. To ensure participants were able to attend programme, the Ministry funded contributions towards relievers to release ELS staff.¹⁷ Disbursements were also funded to support resources and catering to support delivery of the programme. Peer coaching sessions were provided to the newly trained group leaders by the international developer to ensure group leaders are delivering the programme with fidelity. Peer coaching is conducted as a group session. Group leaders are further supported by ongoing feedback and discussion about their programme delivery.

¹⁶ Likely early learning kaiako, however, the programme is not exclusively for kaiako and can also include other ELS staff.

¹⁷ Funds are subject to the condition that participants attend more than 85% of the programme sessions. Funds are paid to ELS for the purpose of hiring a relief teacher to free up ELS kaiako to attend the professional learning development.

IB pilot programmes are delivered in blocks to allow ELS staff participating in the programme to practice learnings between modules. It was also expected that ELS staff will adapt IB strategies to their individual ELS context as they build confidence in using them. Eventually, it is expected that these practices would be implemented in the ELS and the associated tamariki would benefit from the practices, building social emotional competence and confidence.

This adapted application of IB, alongside the wider Ministry processes, is referred to as the *IB pilot programme*; the logic model for this process, as defined above, is illustrated in Appendix A.

The evaluation

The evaluation was commissioned to help the Ministry understand the effectiveness of the IB pilot implementation process at its different stages, and how the programme's content and services are relevant and efficacious for the early learning sector. The process evaluation focuses on identifying and documenting the learning from the pilot. This is to inform the design of any future initiatives and programmes in ELS that set out to strengthen the social and emotional learning of tamariki and the development of self-regulation.



Key evaluation questions (KEQs)

1. How well has the programme been implemented?
2. How well has the programme been adapted to the New Zealand and local context?
3. How well are ELS set up to effectively practice IB strategies in their centres?



CONTEXT

Putting things in perspective

Early learning settings in New Zealand are diverse.

New Zealand's early learning services me ngā kōhanga reo are diverse and include education and care services, such as crèches, preschools and childcare centres, and include services with different philosophies – Montessori and Steiner, kindergartens, playcentres, home-based ELS, hospital-based services and playgroups. Early learning services can be run by community or private providers.¹⁸

The table below highlights the diversity of ELS, showing the numbers of different licenced early childhood education services (n=5,401), teaching staff (n=30,476) and enrolments in 2020 (n=20,287). ELS, regardless of ownership, must be inclusive and meet the same standards set out in the regulations of the Ministry of Education and the Education Review Office.¹⁹

Table 1: 2020 statistics about early childhood education in New Zealand²⁰

	Licenced services	Teaching staff	Enrolments
Education & care	2,701	25,500	130,908
Kindergarten	661	4,121	27,483
Casual education & care	7	19	
Correspondence school	1	8	333
Home-based	424	757	15,022
Hospital-based	20	71	
Kōhanga reo	444		8,334
Playcentre	404		8,268
Playgroup	739		12,528
Licence-exempt kōhanga reo	0		0
Licence-exempt playcentres	19		271
Ngā Puna Kōhungahunga	30		243
Pacific Island early learning groups	20		156
Playgroups – general	670		11,858
Grand total	5,401	30,476	202,876

There is a need for ELS professional development opportunities on social and emotional learning.

The tamariki within these ELS are diverse and there are some with significant needs among this population. Using the Strengths and Difficulties Questionnaire (SDQ), a

¹⁸ Education Counts. (2021). ECE Services and Staffing. <https://www.educationcounts.govt.nz/statistics>

¹⁹ He taonga te tamaiti Every child a taonga Early learning action plan 2019-2029 (2019), He taonga te tamaiti | Every child a taonga (conversation-space.s3-ap-southeast-2.amazonaws.com)

²⁰ Education Counts. (2021). ECE Staffing. <https://www.educationcounts.govt.nz/statistics>;

Education Counts. (2021). ECE Services. <https://www.educationcounts.govt.nz/statistics/services>

psychological adjustment screening questionnaire, the Ministry of Health reported²¹ that about 8% of tamariki aged 3 to 14 years old experience significant self-regulation difficulties (an estimated 57,000 tamariki). The prevalence and nature of difficulties differs across subgroups,²² and relevant to ELS, the rates of concerning total difficulties were higher for those aged 3 to 4 years – amounting to 10.2% of this population.

Although these needs exist, there are no sustained, centralised services of professional learning and development (PLD) in social and emotional learning available for kaiako, and PLD in ELS is provided on a sporadic and ad-hoc basis.²³

Guidance around social and emotional learning is provided within Te Whāriki, the New Zealand Early Learning Education curriculum, and He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning. Te Whāriki aims to develop the mind, body and spirituality of tamariki within holistic perspectives and promote emotional competence, including supporting tamariki to understand, express, and regulate their emotions; helping tamariki build resilience and a sense of self-worth; and providing positive guidance during heightened emotions.²⁴ ²⁵ He Māpuna te Tamaiti focuses explicitly on guidance for developing social and emotional competence within ELS. The resource includes practical guidance and a self-assessment tool.

The IB pilot programme was delivered to a small and unique cohort...

The IB pilot programme was delivered to a small and unique cohort of ELS, highlighting the pilot nature of IB in New Zealand. In total, 16 programmes were delivered in four (of the 10) Ministry regions: Auckland, Wellington, Hawke's Bay/Tairāwhiti and the Nelson, Marlborough, West Coast region (c.f. Figure 2).

The pilot programme was delivered across a range of different service types, including 49 different education and care services, 23 free kindergartens, 14 te kōhanga reo and a playcentre. There were proportionally more kōhanga reo services (13%) and kindergartens (26%) engaged in the IB training than the national averages (9% and 14%, respectively).

²¹ McKernan, S. (2018). Social, Emotional and Behavioural Difficulties in New Zealand Ākonga: Technical Report. Wellington: Ministry of Health. <https://www.health.govt.nz/system/files/documents/publications/social-emotional-behavioural-difficulties-nz-ākonga-technical-report-may18.docx>.

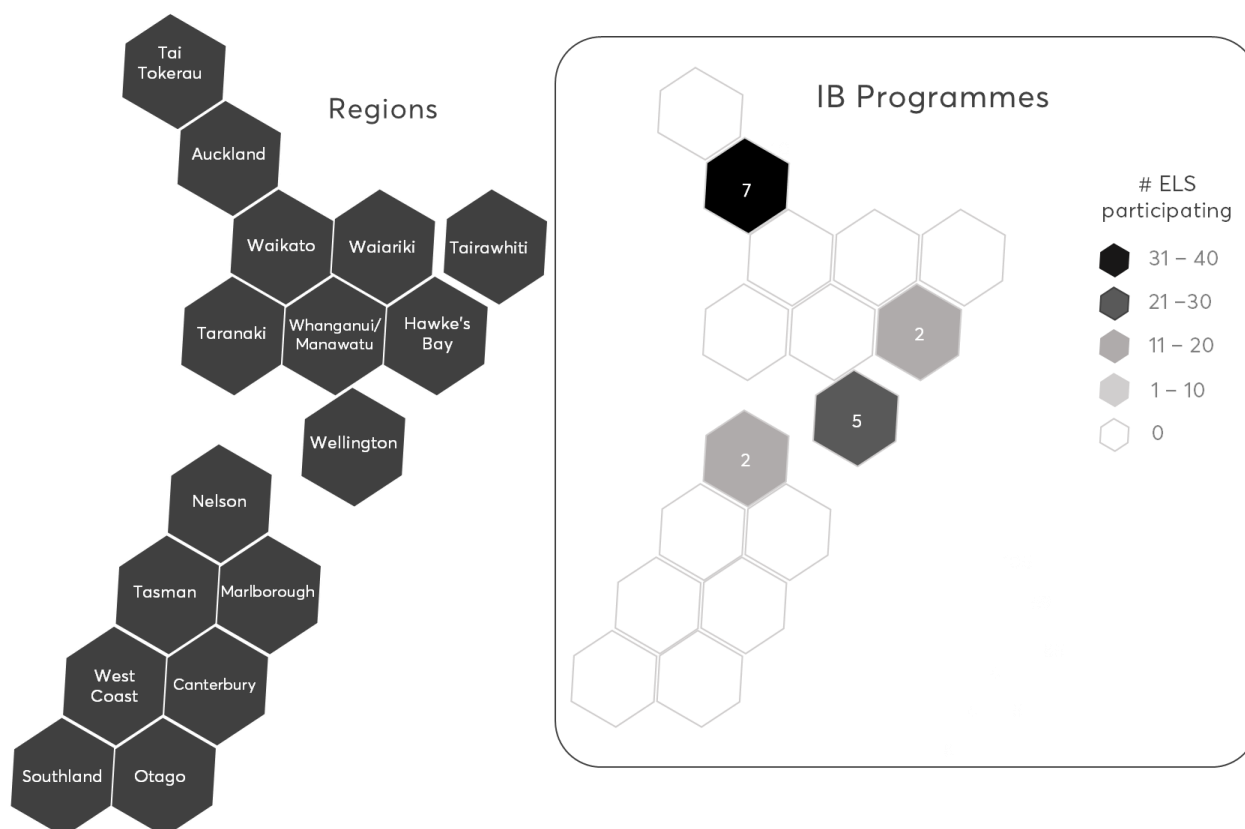
²² When comparing select groups across the age groups, Māori tamariki were 1.79 times more likely than non-Māori tamariki to have a concerning difficulties score; and those living in areas of high socioeconomic deprivation areas were three times more likely to have concerning scores.

²³ Ministry of Education Briefing Note Strengthening social and emotional learning in early years settings to support social cohesion, 22 April 2021.

²⁴ Ministry of Education. (2019). He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning. Cognition Education for the New Zealand Ministry of Education. <https://tewhariki.s3.ap-southeast-2.amazonaws.com/public/Teaching-strategies-and-resources/Files/He-Mapuna-te-Tamaiti-book.pdf>.

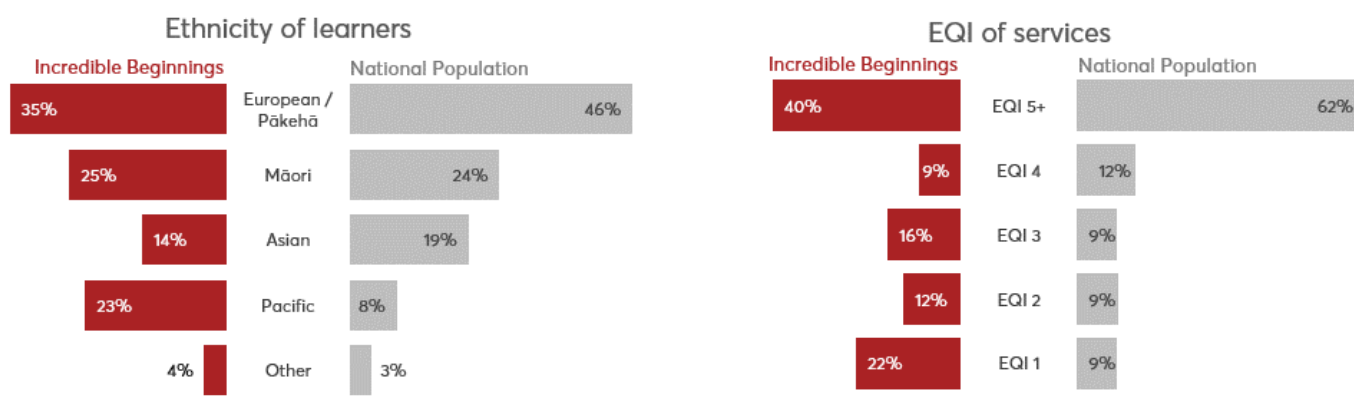
²⁵ Ministry of Education. (2017). Te Whāriki He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum. Wellington, Ministry of Education. <https://assets.education.govt.nz/public/Documents/Early-Childhood/Te-Whariki-Early-Childhood-Curriculum-ENG-Web.pdf>.

Figure 1: IB pilot programme delivery within New Zealand (source: *IB registers*)



The ELS recruited to the service were also unique insofar as the tamariki they support, most notably in terms of ethnic composition and socio-demographic makeup (i.e. the equity index). Proportionally more services at EQI 1 to 4, those services eligible for equity funding, were enrolled in IB during this pilot phase, as well as services with more Pacific tamariki.

Figure 3: Ethnicity of tamariki and EQI of services participating in the programme (red), as opposed to the national population (grey), source: *New Zealand ECE directory*²⁶ and *IB registers*



²⁶ <https://www.educationcounts.govt.nz/directories/early-childhood-services/ece-directory>, downloaded 15 August 2022

...and it was delivered in a time of significant disruption across the education sector.

The uniqueness of the pilot and the ELS that enrolled should be considered alongside other contextual factors that would likely influence the delivery of the IB pilot programme. Timing, for example, meant that the programme was delivered during the COVID-19 pandemic. Up until 2 December 2021, during group leader training but before the beginning of IB training, regional lockdowns were being issued in areas that had very high infection rates. The Government introduced Omicron phases, with a focus shifting to testing and isolating individuals and household contacts as case numbers grew. Further, vaccinations were mandated, and masks were required within the school settings from 15 November 2021 until these mandates were narrowed on 4 April 2022.

On 16 February 2022, when IB programmes were beginning to be delivered to ELS, all of New Zealand moved to Phase 2, meaning that all COVID-19 cases along with household and close contacts were required to isolate at home and test for COVID-19. Although schools and early services were allowed to stay open during this phase, this change meant some school staff, tamariki and whānau chose not to engage or enrol, while others engaged but managed periodic home isolation throughout delivery of IB. This would inevitably lead to staffing shortages, and the logistics around providing professional development would likely have been a further strain on all those involved throughout the delivery period.

Contextual factors, such as those described above, would likely influence what could be achieved by the pilot and need to be considered alongside the evidence.

EVIDENCE QUALITY OVERVIEW

A photograph of two young boys outdoors. The boy in the foreground, wearing a green plaid shirt, is holding a magnifying glass over his right eye, which is visible through the lens. He is smiling slightly. The boy in the background, wearing an orange shirt, is out of focus. The background consists of green foliage and trees.

Evaluation approach and methods

Incredible Beginnings is a training programme for teachers and childcare providers and from 2022, was being adapted to the New Zealand context as a pilot.

The evaluation was commissioned to help the Ministry of Education Te Pae Aronui understand the effectiveness of the IB pilot implementation process, and how the programme is relevant and efficacious for the New Zealand ELS sector. As such, this process evaluation focuses on the early implementation of the pilot as delivered through the initial round of 16 programmes and identifies the delivery mechanisms that may influence success at each stage.

The evaluation evidence will be used by the Ministry to inform policy advice to the Government. The evidence will also be used to make informed decisions about any future delivery of initiatives and programmes in ELS that are designed to strengthen the social and emotional learning of tamariki and the development of self-regulation.

For this context, the evaluation adopted a mixed-methods approach to answer the key questions, integrating both qualitative and quantitative data. The process integrated a staged data collection approach so that information could be shared with the Ministry at various points throughout the evaluation, and so that each stage could iteratively build upon the evidence from the previous round as the programme was being implemented.²⁷ The evaluation process captured and shared evidence while the initial round of 16 IB pilot programmes were being delivered. The evidence included:

Early programme delivery: *March*

- Two stakeholder group interviews with Ministry staff, including three people involved in the pilot funding and recruitment of group leaders, making clear the IB background, group leader recruitment process and New Zealand context.

Mid-programme delivery: *April-May*

- Two focus groups with IB group leaders, including 8 (of the 14) group leaders trained to facilitate IB, documenting their experiences with recruitment, group leader training and the initial adaptations made to IB.
- Three focus groups with IB participants, including 7 (of the 195) ELS staff that were undergoing training within IB, identifying different experiences with recruitment, training and IB-relevant practices.
- Secondary data available to the Ministry, and more specifically, ELS and participant enrolments in IB, as documented in the IB registers. These data were combined with publicly available data about ELS from the ECE directory.

Near-end programme delivery: *June-July*

- A meeting with Ministry stakeholders, sharing the emerging findings and informing the next steps for the evaluation.

²⁷ The earliest programme started training participants on 9 February and the latest programme ended training participants on 2 August.

- A survey of IB participants (n=74 of the 195 enrolled participants) and a separate survey of IB group leaders (n=10 of the 14 group leaders) to understand the enabling factors relevant to recruitment and training and in relation to kaiako knowledge, abilities and confidence.
- Secondary data available to the Ministry, and more specifically participant attendance in IB training sessions, as documented in the IB registers and fidelity checklists.

Programmes completed: *August*

- A sense-making session with Ministry stakeholders and IB group leaders, providing an opportunity to share and test the validity of the emerging findings, promote learning and leadership, and inform the next steps.

These data were triangulated and synthesised to answer each KEQ. Further information on the evaluation criteria and methods used for this evaluation are included in Appendix A.

Evidence quality and use

The IB pilot programme evaluation seeks to inform future implementation of IB in New Zealand, and any future delivery of social and emotional learning programmes contextualised within the New Zealand ELS sector. Although this process evaluation was relatively small, the evidence is documented so the Ministry Te Pae Aronui (the intended audience) may build upon this experience more broadly.

For this context, the evaluation collated evidence to the following standards:

- **Sufficient:** The data explored different contexts within the pilot, and although the data did not achieve saturation across these multiple contexts, there was a high degree of saturation for some themes. This suggests that the data were sufficient to identify factors that may influence success (or otherwise) when implementing IB in the New Zealand ELS setting.
- **Not generalisable:** the data are not likely generalisable in the broad ELS setting. The evidence was intended to learn from the different contexts, and although the data achieved high participation rates among group leaders and ELS participants, the data are limited to the context of the pilot settings.
- **Balanced:** the collective results provide a balanced picture of IB across the different roles, experiences and settings relevant to the early implementation of the pilot.

The quality of evidence used here was deemed appropriate for the agreed purpose of this evaluation, and the findings should be used in the context of these evidence standards.

FINDINGS & SUPPORTING EVIDENCE



What we found

The salient themes that emerged from the data are provided as a series of findings (as bolded statements) each evaluation question. The evidence justifying each finding is summarised below the statement and highlights the source(s) of evidence: interviews and small focus groups with government officials (KS); focus groups with group leaders (GL) and participants (PI); the group leader survey and the separate participant survey; and the sense-making session with group leaders and government officials (SS). The number of times each source code is shown demonstrates the frequency with which this theme was noted across these sources, and as such highlights the weight of the evidence to support each finding.²⁸

KEQ1: How well has the programme been implemented?

A range of different evidence and evidence sources were used to understand how well the programme was implemented, including enrolment and attendance data submitted to the Ministry; focus groups with Ministry officials, group leaders and kaiako participants; and the two surveys. These data were triangulated and synthesised to assess effectiveness. The results showed that the IB pilot programme was effective in its implementation, meeting many of its programme implementation and delivery objectives. Although some evidence of effectiveness were inconsistent, which likely reflects the pilot nature of IB, they provide useful learning for the Ministry moving forward.

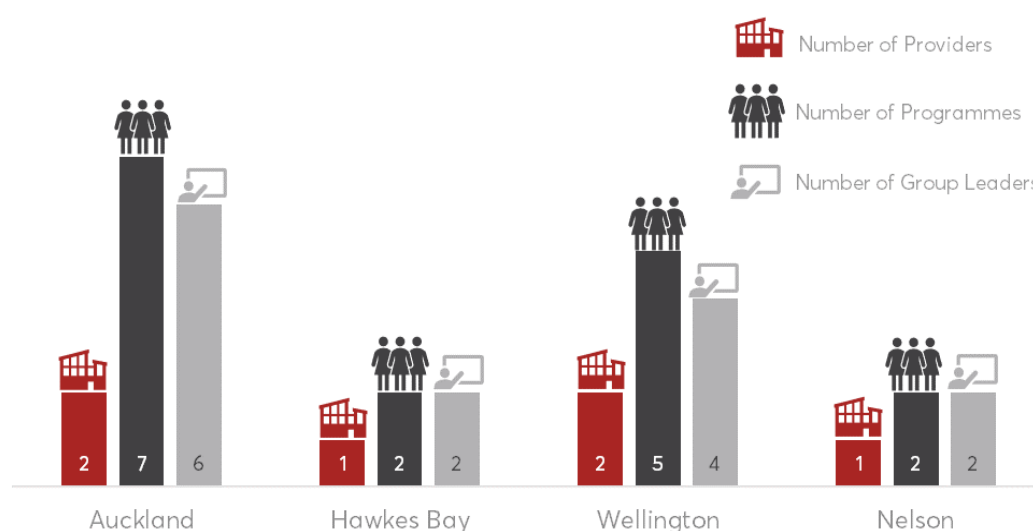
Recruitment: achievements and learning

Experienced IY facilitators were recruited to facilitate the IB pilot programme in New Zealand.

The recruitment methodology for group leaders was to invite interest from regional Ministry offices in the first instance, and then allow them to identify external providers based on what was known about the different regional providers locally (KS). The secondary data showed that the Ministry was successful at recruiting 14 group leaders and 6 providers to deliver 16 programmes across the Auckland, Hawke's Bay, Wellington and Nelson regions.

²⁸ Some source codes, such as documents, have a number following the source code which designates a specific document, interview, focus group or person within the sense-making session. These numbers were removed from the interview codes (KSI, RHI, EDI and AI) in this report to protect anonymity. These are retained in the evaluation team's copy of the report as part of the team audit and accountability process.

Figure 4: Numbers of active providers and group leaders that delivered the IB pilot programmes, from February to August 2022 (source: IB registers)



Key stakeholders confirmed that the recruited group leaders were trained and experienced IY facilitators (KS, KS). The recruited group leaders' IY knowledge was considered foundational to the IB training, and believed necessary to successfully deliver IB (KS). It is also a reported requirement to be accredited to deliver IB.

The group leader survey similarly showed that group leaders had extensive IY experience. The majority of group leaders (70%, $\pm 15.8\%$) had six or more years of experience as an IY facilitator, with only three of the 10 respondents having less experience than this. All group leader respondents reporting having completed at least one type of IY training. More specifically, 60% of respondents ($\pm 16.8\%$) were trained IY group leaders, 50% ($\pm 17.2\%$) were an accredited IY group leader, and/or 30% ($\pm 15.8\%$) were peer coaches. Only in one case, a group leader noted that they were new to IY (GL).

Not only competent in IY and facilitation, but the group leaders were also reported to have a strong understanding of Te Whāriki and cultural competencies to enable delivery to mostly Māori and Pacific kaiako (KS, KS).

The Covid-19 environment proved challenging for recruiting ELS, but nevertheless at least 90 ELS and 195 participants were enrolled in IB across the four regions...

Group leaders were responsible for recruiting participants from local ELS for their IB pilot programmes. As Māori and Pacific kaiako tend to be underrepresented in Incredible Years® teacher programmes, the Ministry set the expectation of a minimum of 13 and a maximum of 15 participants per programme, of which at least 80% of participants identified as Māori and/or Pacific.

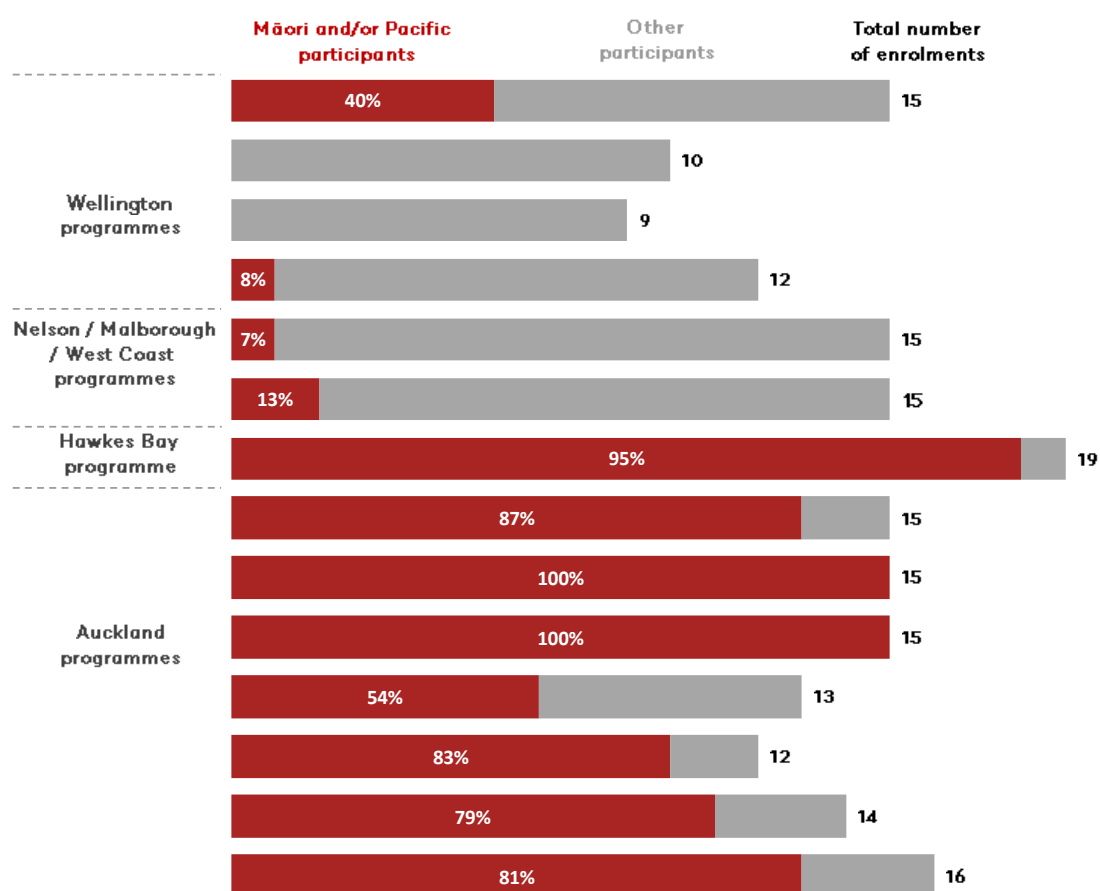
The goals were challenging for group leaders, in particular given that the programme was recruiting and operating throughout the COVID-19 pandemic in New Zealand (GL, SS). Throughout this initial pilot period, New Zealand was operating on the COVID-19 Protection Framework, whereby Covid positive individuals were required to isolate alongside their household contacts. Schools and ELS remained open for the most part, and the group leaders highlighted that they were managing absences among staff and relievers. At least two group

leaders noted that recruitment from the education workforce was particularly challenging during this period (GL, SS).

Nevertheless, the available secondary data²⁹ showed that group leaders successfully had recruited at least 90 different ELS in to the IB pilot programme across the four regions. Of these, the largest numbers of ELS were enrolled in Auckland (n=37) and Wellington (n=27) with fewer ELS enrolled in Hawke's Bay (n=11) and Nelson (n=15). This regional variation will likely be due to the numbers of available providers and programmes in each region. Auckland and Wellington each had recruited two separate providers to recruit for seven and five programmes (respectively). In contrast, there was one provider in each of the Hawkes Bay and Nelson regions, with each provider recruiting for two programmes.

The secondary data also showed that by mid-July, there were 195 participants enrolled in the IB pilot programme. Most programmes achieved their goal of enrolling at least 13 staff, with only two programmes having fewer than this number of participants. Of these enrolled participants, 57% identified Māori or Pacific as at least one of their ethnicities. This is lower than the 80% target set by the Ministry of Education. However, it was clear that this achievement was programme/region specific; notably, 80% Māori and Pacific representation was easily achieved in the Auckland and Hawke's Bay regions, which were 40 times more likely to have Māori and Pacific participants in the programmes than the three providers in the Wellington and Nelson regions.

Figure 5: Participants enrolled across the IB pilot programme in four regions (source: Ministry IB registers)



²⁹ Fourteen of the funded 16 programmes had submitted enrolment information about ELS by the time of writing this report.

More recent data provided to the Ministry of Education³⁰ showed high Māori and/or Pacific populations within two more recent programmes delivered in the wider Wellington region (Porirua, Whanganui and Levin). Their reported data showed 28 of the 30 participants were either Māori or Pacific, with one Filipino and one European New Zealander among the participants.

Group leaders' connections are key to successful recruitment.

Although not included as a recruitment criterion for group leaders, several interviewees noted the further importance of having established relationships and networks as a key criterion (KS, KS, GL); they believed these connections were necessary to successfully recruit the target Māori and Pacific kaiako population.

While PLD opportunities are expected for staff, the decision to take up any opportunities is at the discretion of the services. It is understood that these decisions are sometimes made by national bodies, or as a cluster of ELS, while other ELS make the decision within their centre. Knowing who and how to engage the different ELS in the regions, and how to get the right people involved is key to successful recruitment (KS, GL).

Group leaders that easily achieved these targets had existing connections within the communities (GL, GL) – they *"filled up three programmes really easily"* because these connections were already in place. Among groups that had achieved successful uptake among the Māori and Pacific communities and centres, it was further emphasised that relationships and trust are key (GL, GL, GL).

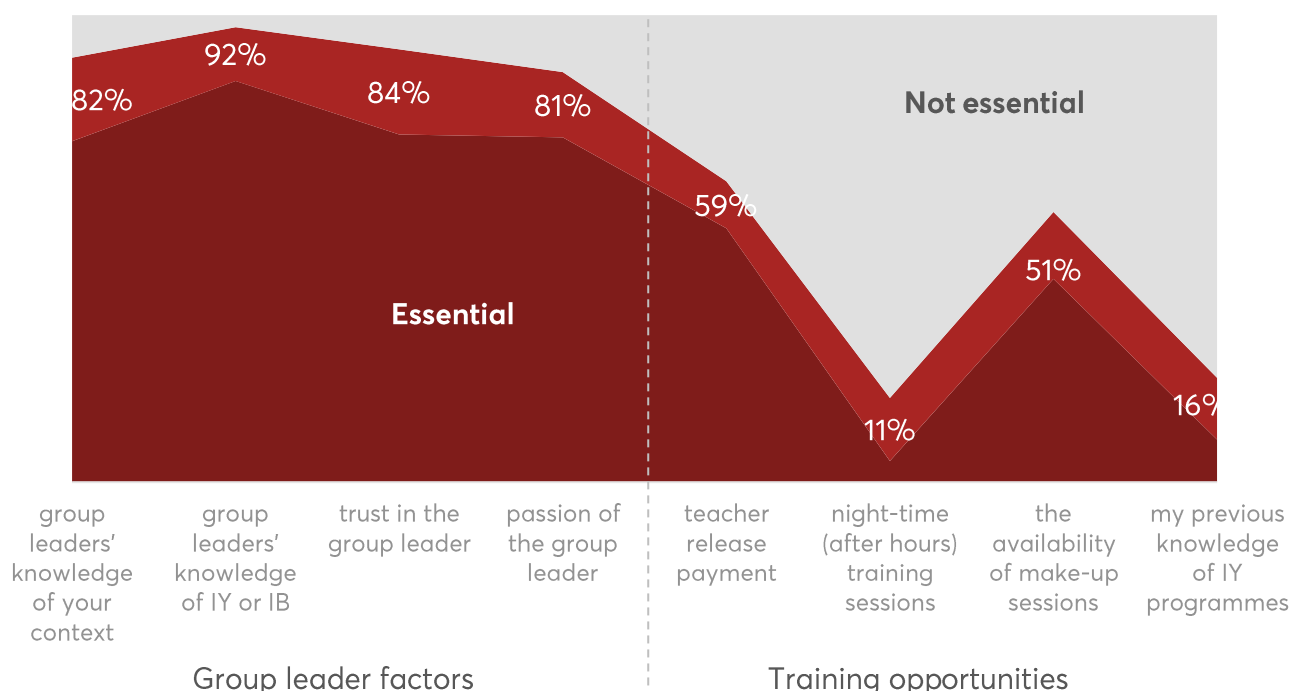
Participants in the focus groups similarly reflected on their enrolment. Aside from a centre or personal interest in the social-emotional space (PI, PI, PI), the connections made between their centre's staff and the group leader was what enabled participation (PI). Some heard about it through other connections (PI) while others heard about it from the group leader, who was an existing connection to them (PI, PI).

**VĀ IS KEY, IT'S A SACRED CONNECTION, A RECIPROCAL
RELATIONSHIP... THEY'RE LIKE-MINDED [AND] TRUST IS
THERE. – PARTICIPANT**

The participant survey reiterated these two views, that IY knowledge and connections were key. Participants identified specific factors that were essential to enrol in IB. As shown below, not only is the group leaders' knowledge of IY/IB key, but so is their knowledge of the specific ELS context (82%, $\pm 6.9\%$). The participants trust in the group leader (84%, $\pm 6.6\%$) and the group leaders' passion (81%, $\pm 7.1\%$) are also essential for nearly all participants.

³⁰ The data was reported by the provider and received on 8 August 2022.

Figure 6: Proportion of participants (n=74) that reported each of 8 factors as essential to enrol in IB (red), highlighting the 95% confidence interval around this estimate (light red)



What is interesting is that the group leader factors were essential to more participants than logistical factors that enabled training participation. These logistical supports for training participation were viewed as essential for about half of the participants, with 59% ($\pm 8.9\%$) indicating that having teacher release payments and 51% ($\pm 9.0\%$) indicating that having available make up sessions were essential for taking up the programme. Only 11% ($\pm 5.6\%$) of participants indicated that having night-time sessions was essential.

Advocacy and the focus on learning are important to promote enrolments.

Some participants noted that there was some "pushback" about IY not being culturally relevant (GL, GL, PI). Having a person advocate for the programme and confirm the alignment of the programme with the centres' cultural framing was believed absolutely necessary (GL, PI). It's also valuable that this advocate is someone from the community, building upon the established trust (GL, PI, SS) and making clear the opportunities to develop the content in a way that is relevant to the centre – especially the language (PI, PI). For effective advocacy, the group leader must have full faith that the programme can support the community, as they are leveraging their relationships and working from a place of trust and care for their community.

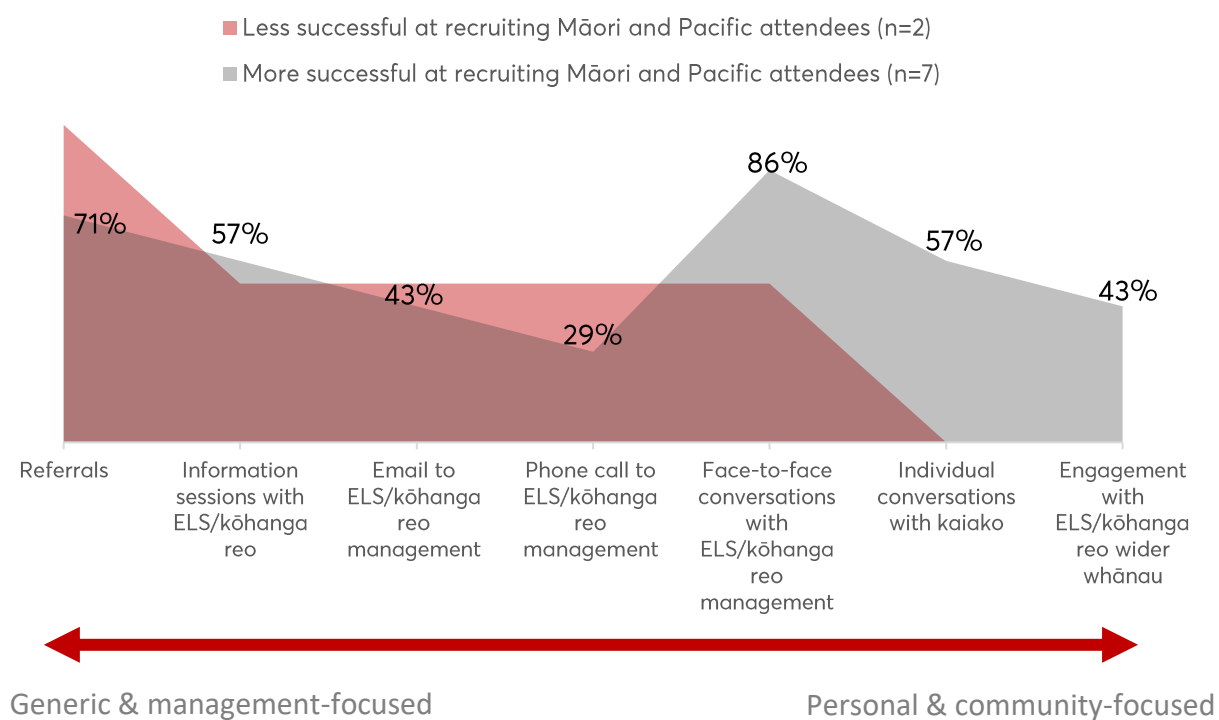
Personal and broad engagement methods may support successful recruitment.

Group leaders recruited participants and early learning services in different ways. Some facilitated meetings with the national governance bodies of a group of early learning services, focusing on the areas that would have more Māori and Pacific staff (GL, GL). Others had reached out directly to teachers sitting on an IY waitlist (GL), although this approach did not reach the specific target audiences. Other group leaders tried to engage potential participants

and promote uptake through other individuals with stronger connections in these communities (GL, GL, GL, GL), but this did not result in any uptake. The relationship between the group leader and the targeted ELS staff wasn't there, which therefore made the initial connections challenging.

The group leader survey also showed the activities that the group leaders attributed as essential, and these ranged from those engagements that were more generic, such as engaging through referrals and facilitating information evenings, to emails and phone calls with the ELS management. In person engagements with management and moving to broader connections and engagements with individual kaiako and ELS whānau were also used to recruit ELS. As shown below, however, these broader and more bespoke approaches were used by those that had greater success in recruiting Māori and Pacific participants.

Figure 7: Different recruitment methodologies employed by two groups of group leaders: those that were relatively more successful at recruiting Māori and Pacific participants (n=7) and those that were not (n=2)



Group leader training: achievements and learning

Group leader training was delivered more efficiently than planned...

Group leaders received five sessions of virtual training, with each session being approximately 3.25 hours, this amounted to 16.5 hours in total. The training described the IB content, shared resources and workshopped how to deliver sessions to participants (KS). The training was less time-intensive than the intended amount of 21 hours (KS). At least one session of mentoring was also expected in that the IB developer would train group leaders. Some group leaders took up one of these coaching sessions (SS, SS, SS, SS, SS), while others took up two sessions

(SS) or none with the developer (SS). The Ministry suggested that they will be following up with those that didn't attend.

These sessions provided an opportunity for learning about IB and the resources available to facilitate this. This time was also used to align the programme to the New Zealand context, with the training group leaders adapting the programme to align with Te Whāriki (New Zealand's Early Childhood Curriculum) while making use of resources such as He Māpuna te Tamaiti.

...and minor adjustments to time and communications can further enable success.

The group leaders valued the training they received, including the online training with the developer and the co-facilitator, and most notably the discussions with their colleagues within the training sessions, as well as an additional hui organised by the Ministry (GL, GL). From the training and hui, they gained a set of useful notes to use among themselves (GL). However, for some group leaders, the training presented challenges in terms of adapting an established programme (GL, GL, GL, GL).

As noted above, IB was being delivered as a pilot, and this initial cohort provided useful learning as the first IB professional development delivered in New Zealand. Through the course of the evaluation, the group leaders identified two aspects of the training that could improve effectiveness. First, it was believed necessary to secure more time for group leaders to learn and adapt the IB programme (KS, KS, GL, GL, GL). Some group leaders noted that the training was being developed as it was being delivered (GL, GL, SS), and that they struggled to find the time to go through it in depth and look at how it aligns (GL). In order to adapt it to the New Zealand context, at least one group leader wanted to first understand IB fully (GL). Other group leaders similarly reflected that there was inadequate time to fully adapt the content alongside learning the content (SS, SS, SS). As one group leader noted *"time was a factor but also there was the unknown element of the material, so until we delivered we didn't really know how it would work as a whole."*

This meant that there was a significant amount of time required for hui, unpacking the information to be relevant to New Zealand, and required for preparation, including paperwork and selecting the appropriate vignettes, alongside delivery (KS, KS, GL, GL, GL). It was suggested by some that the extra time appeared easier to cover for Ministry staff (who could reallocate work to an extent, and the time could be absorbed by employers) than for contractors (who were being paid for delivery rather than training and preparation) (KS, GL).

Not all providers could attend every session, nor were all providers available for further learning opportunities intended to build relationships and professional practice, such as a post-training hui (KS). Available capacity was noted as one barrier, as was Ministry funding to cover the time and staffing costs associated with such opportunities (KS, KS). Knowing the expectations and associated capacity requirements would be valuable to inform the decision of whether to take part in facilitating IB or not (KS, KS).

The second aspect of training that group leaders believed could improve training was to make clear what can and cannot be adapted with IB. The participant and group surveys both showed that IB is broadly considered relevant to the New Zealand ELS context (c.f. section KEQ2: *How well has the programme been adapted* section), there were some aspects that were identified as either not appropriate within the New Zealand context, such as "time out"

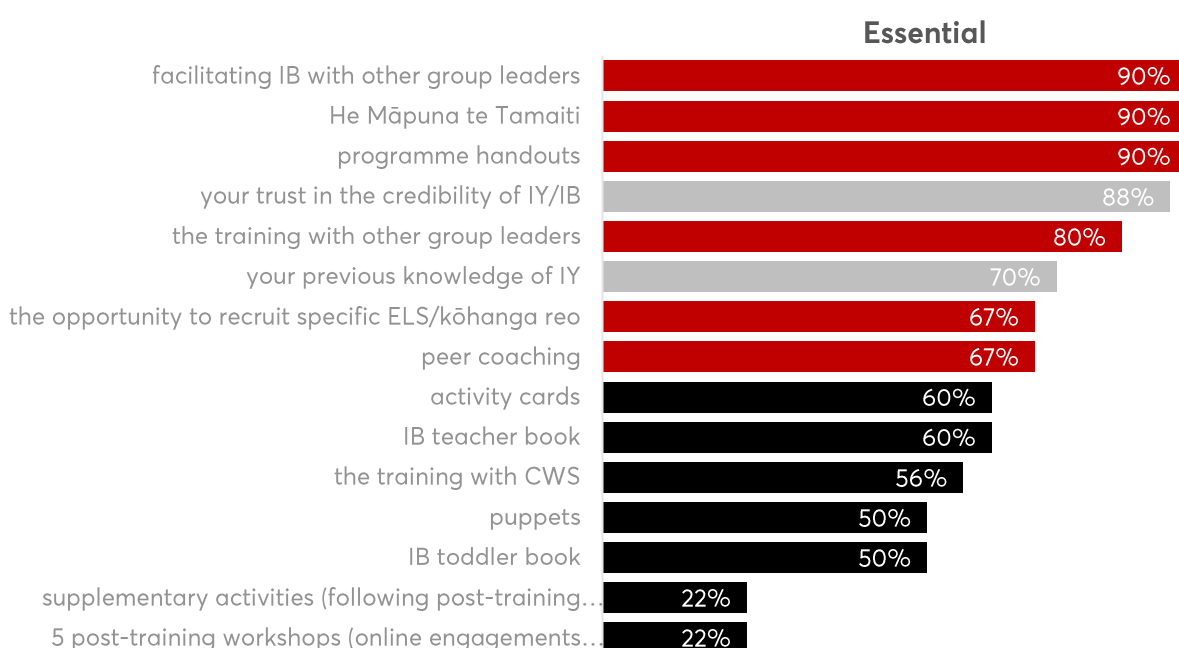
(GL), or requiring adaptations (c.f. section *Adaptation and integration* section). There was a reported tension between *"the training of generic IB and the specific adaptations required for the New Zealand context"* (SS). A few group leaders believed that having the developer present may have limited the adaptations made to the IB programme (GL, GL, SS, SS, SS, SS). They would defer to the developer's expertise throughout the training period, and some were not clear how much could be adapted or perceived a reluctance to change elements. For these group leaders, having frank conversations about how elements fit within the context were challenging, although one group leader noted that the developer *"did a great job of reading our resources... so this made me feel she was aware that we could add to this and was happy for us to do this"* (SS).

Local context knowledge and learning as a group is important given the developmental stage of the programme within the New Zealand context, as is their trust in the credibility of the programme.

The group leader survey results showed that about half of the group leaders believed that the more generic IB training resources, such as activity cards, IB teacher and toddler books, puppets, were essential to successfully facilitate IB (c.f. Figure 8, black bars). What was essential to more group leaders was their local knowledge or ability to adapt the IB content to the local context; as shown below (c.f. Figure 8, red bars), nearly all of group leader respondents believed that knowledge of the local context (e.g. He Māpuna te Tamaiti, and their ability to recruit the local ELS), the ability to work with other group leaders (e.g. facilitating and training with them) and their development of handouts were essential to facilitate IB successfully. It is important to emphasise that these 'local' elements would likely help them contextualise IB within New Zealand.

Group leaders' trust in the credibility of IY/IB was essential for many group leaders, as was their knowledge of IY more generally (c.f. Figure 8, grey bars). This result may underscore the early stage of developing the IB programme for the New Zealand context, whereby IY knowledge is important given they group leaders were responsible for refining the IB content to fit the local context, and trust in the credibility is important at this early stage as the programme has yet to be proven as effective within the New Zealand context.

Figure 8: Proportions of group leader respondents (n=10) that reported each of 15 factors as “essential” to facilitate IB successfully in the local context



These collective results may mean that while the more generic IB content was essential for most, adaptation was a key element of the group leader training and this required the group leaders' trust and knowledge, and the group training approach to enable them to successfully facilitate within the local context. Such elements reflect the early stage of IB in New Zealand, and the requirement to adapt to successfully facilitate this programme to New Zealand ELS. It is expected that these training requirements may shift once the programme is sufficiently adapted and matures in the given context.

Participant training: achievements and learning

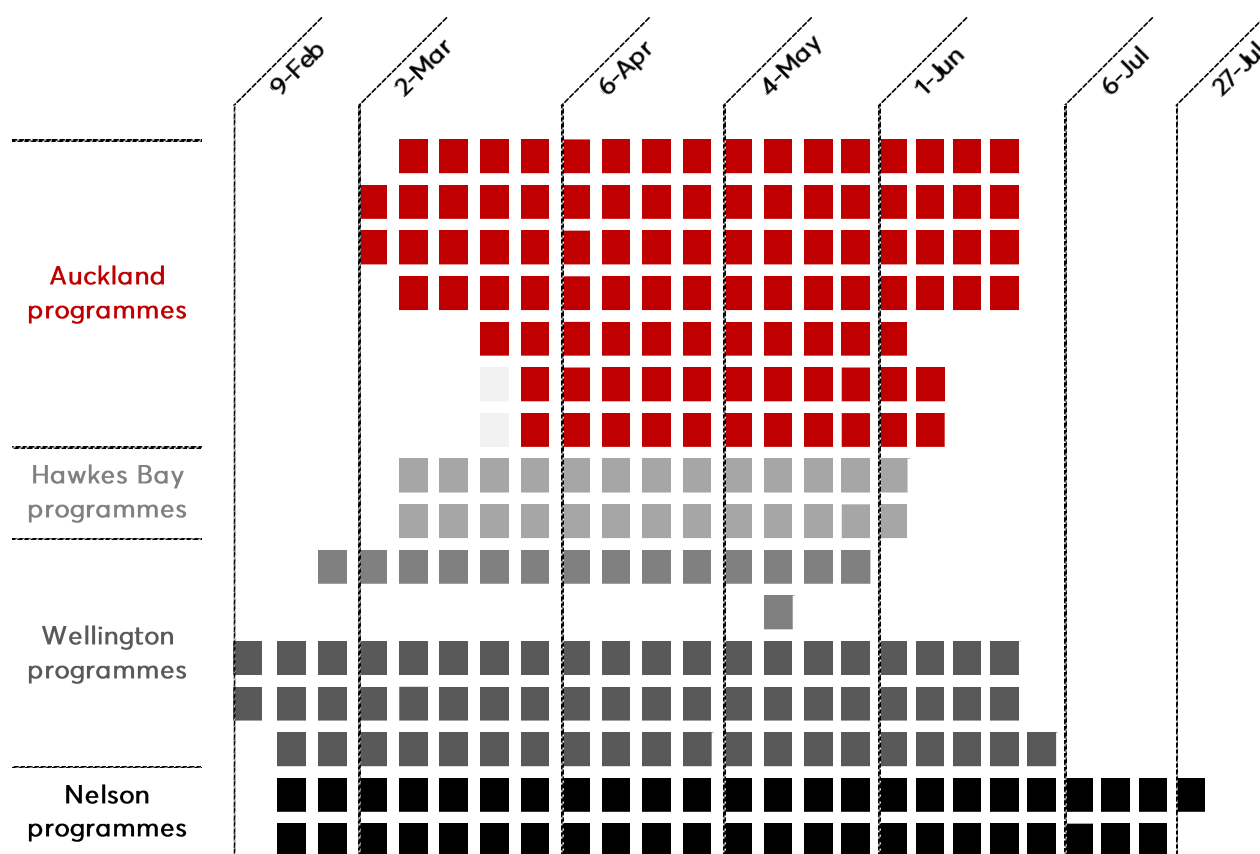
Sixteen programmes started and finished by the beginning of August 2022, each making use of different delivery approaches...

The Ministry confirmed that all 16 programmes were designed and then delivered, with administrative data showing that these programmes were delivered between 9 February and 2 August.

As described on the developer site, the Incredible Beginnings® Program is designed to be implemented over 6 full-day workshops.³¹ The IB registers suggested that programmes were delivered over 6 to 7 half-day workshops. The Ministry's secondary data also showed that some IB programmes were delivered over a longer period, such as one programme extending over five months, while other programmes were delivered over shorter periods, such as another programme being delivered over a one-week block.

³¹ <https://incredibleyears.com/programs/teacher/incredible-beginnings-program/>, retrieved 1 August 2022.

Figure 9: Delivery timetable for 16 IB programmes (as row) across the pilot period (columns), highlighting the 16 programmes delivered across the four regions.



...as both night and day-time delivery, as well as online and face-to-face delivery posed unique challenges

The programme structure, and how it was delivered, was decided in consultation between group leaders and programme participants. There does not appear to be one ideal way of delivering IB to New Zealand ELS. When responding to the questionnaire, participants highlighted the diversity of the delivery experiences. Some participants reported that the workshops were delivered at night outside of typical work hours (18%, $\pm 7\%$) or during the day in work hours (89%, $\pm 5.7\%$), with 7% of participants having a combination of both delivery times.

The group leaders also recognised the challenge for some kaiako to undertake the training during the day, creating additional stress for the ELS (GL, PI). Although some group leaders did not recommend night-time classes (GL), for those kaiako taking classes at night (PI), the participants agreed that these night sessions had more benefits than disadvantages. Night-time classes impacted on kaiako personal time. As such, night-time classes were possible only because the staff decided it was appropriate. The focus group reflected that their strong desire to see tamariki "smile", to make a difference in their lives, was one reason the group agreed to take part in PLD outside of work hours. These night sessions also offered an opportunity to engage whānau, who would not otherwise be available.

Not only night-time sessions, but online training allowed flexibility, and was reported as helpful for those who were isolating, or those who were able to include IB into a busy day (GL, PI). The

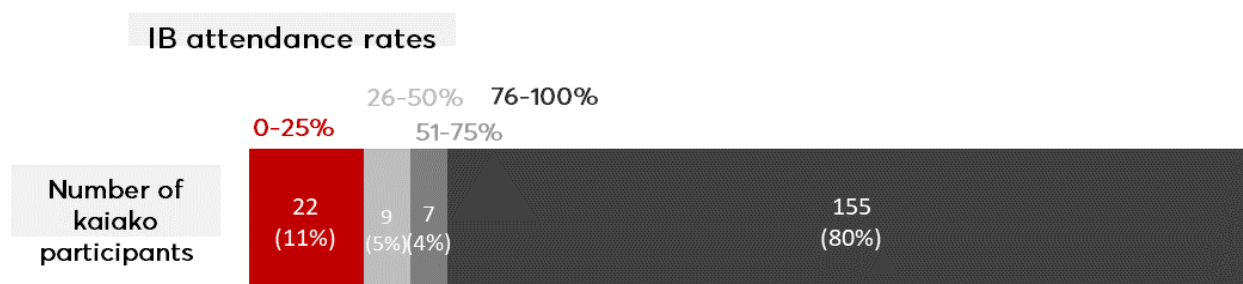
majority of IB participants who responded to the survey received training face-to-face only (73%, $\pm 8\%$), while a few received training via online platforms and communications (1%, $\pm 1.8\%$) and a number received training through a mixture of methods, including both online and face-to-face (26%, $\pm 8\%$). This means that a bit more than a quarter of participants did at least some training online.

Some group leaders recognised that online training limited the ability to maintain energy and focus, and the group leader needed to facilitate accordingly – “change it up or have a break” (GL). Other reported limitations were that online facilitation missed “some key factors” (GL, GL) that would be achieved in any face-to-face engagement (GL) – this may include, for example, the opportunity to build relationships and experience the practice of delivery among peers. These factors would particularly be key for inexperienced kaiako. There would also be no opportunity to share food, which is an element of culture and learning believed valuable for the training (GL).

Most participants attended regularly.

The IB attendance data, as provided to the Ministry, show that most participants (80%) attended at least three quarters or more of the sessions, and an additional 4% attended at least half time but not quite 75% of the time. At the other end of the continuum, there were 11% who attended less than a quarter of the sessions, and another 5% that attended between 25-50% of the time.

Figure 10: IB participant attendance rates across IB pilot programme



When reviewing the registers submitted to the Ministry, there was no clear pattern of attendance when looking across the roles of participants (i.e., registered teacher, teacher aide, support worker), ethnicity of participant, or region. Teacher release payments, and how these enable attendance, would be an area for the Ministry to explore further.

The focus group discussions noted that COVID-19 was a reason for absences (PI), while family priorities and personal matters were another noted reason, in particular for those who took part in night-time sessions (PI). The group leaders also recognised the challenge for some kaiako to undertake the training during the day. They had to find time out of their workday to attend hui, as well as find someone to “cover on the floor” (GL, GL). This time out was reported as creating additional stress for co-workers back at the kindy (GL).

The group leaders reported delivering with fidelity in terms of content, principles and structure, although the resources were used more selectively to differentiate the content for participants.

As highlighted by the developer,³² IB is based on developing language and neuroplasticity in young children, and that will develop better outcomes for tamariki in disadvantaged situations. The content focuses on teaching a range of strategies to kaiako.³³

- Building positive relationships with toddlers and managing separation anxiety (workshop 1).
- Promoting language development in toddlers and pre-schoolers (workshop 2).
- Social coaching with toddlers and pre-schoolers (workshop 3).
- Emotion coaching with toddlers and pre-schoolers (workshop 4).
- The proactive teacher (workshop 5).
- Positive behaviour management (workshop 6).

The objectives of these workshops and topics are set out more fully in Appendix 2.

Fidelity³⁴ in terms of IB means intervention integrity and refers to the degree of exactness with which group leaders adhere to the training programme model features with the goal of achieving the programme's desired outcomes. As reported by one group leader (SS), the IB developer conceptualises fidelity according to three areas. Firstly, *programme adherence*, which is the delivery of programme content and the number of sessions in the intended sequence. In terms of programme adherence, six sessions were delivered to the participants. Through fidelity checklists we attempted to estimate how well aligned the delivery was to the original IB programme content. However, the fidelity checklists were largely unavailable at the time of reporting. Nevertheless, it was noted by one group leader that "*checklists didn't always reflect the amount of sharing and learning that had taken place*" (SS).

Group leaders believed that true fidelity wasn't making full use of the programme curriculum resources but rather delivering to the 'the structure' was (SS, SS, SS, SS, SS) – i.e. covering the topics according to the given outline and making use of the teaching pyramid for toddlers and pre-schoolers (SS). There was a consistent view across group leaders that the programme was delivered to this content structure (SS, SS, SS, SS, SS).

One group leader reported the second area of fidelity was *differentiation*, or implementing the programme specifically for whom the programme was designed (SS). The group leaders widely agreed that the programme requires differentiation and tailoring (SS, SS, SS, SS, SS, SS). This often included selecting resources to ensure relevance to the New Zealand context; such as:

- provoking discussion, often through the selection of provided vignettes (but not always)

³² <https://youtu.be/LK2iQxrzYvc>, retrieved 1 August 2022

³³ <https://incredibleyears.com/programs/teacher/incredible-beginnings-program/>, retrieved 1 August 2022.

³⁴ Webster-Stratton, C. (2016). The Incredible Years parent programs: Methods and principles that support program fidelity. In J.J. Ponzetti (Ed.), *Evidence-based parenting education: A global perspective* (pp. 143-160). New York: Routledge.

- facilitating group discussion around the principles of IB within the New Zealand context (e.g. rather than suggesting activities like “time out”, “holding hands” with the tamariki was the preferred activity).
- using resources and topics to explore values to promote intentional teaching, and encouraging participants to think about how they might apply the strategy within their context.

EVEN THOUGH WE ARE PROVIDED WITH A “RUN SHEET”, I DON’T STICK TO IT IF IT’S NOT WORKING. - GROUP LEADER

The final area of fidelity was *competence*, or the group leaders’ skills in using the training methods, processes and learning principles employed in the programme model (S1). This aspect of fidelity was not assessed in the current evaluation. However, what can be recalled here is that the recruited group leaders were trained, accredited, and experienced IY facilitators (c.f. section *Recruitment: achievements and learning*) who were provided with formal IB training prior to delivering the pilot programmes.

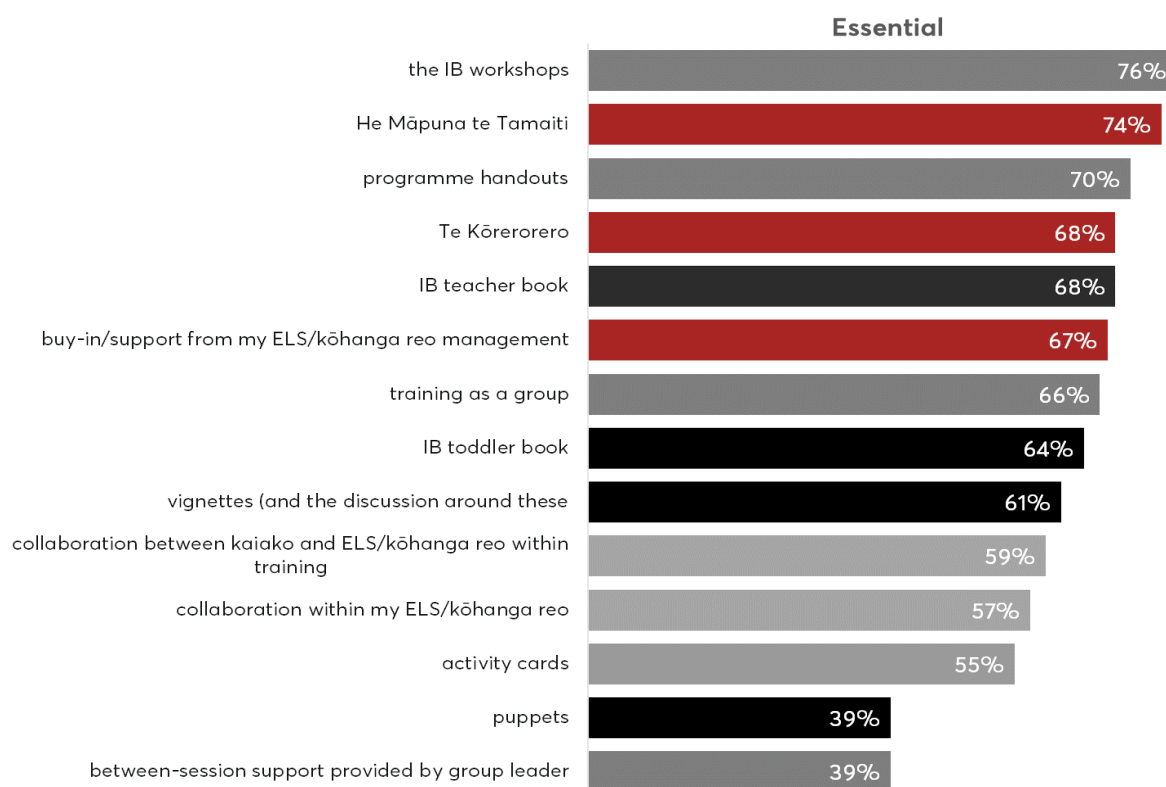
Participant training, most notably the training focused on learning and discussing the IB strategies, and the New Zealand resources were useful to build knowledge and help kaiako apply IB within the local context.

Participants universally noted that the IB strategies were useful, either as a reminder and focus on what they already knew (for those kaiako already focused on social emotional and regulation practices) or as a demonstration of additional strategies (PI, PI, PI). Some noted the most useful elements of the training included: descriptive commenting alongside the praise, recognising with the tamariki what the praise was about; the focus on “calm” and letting the tamariki come to you (PI, PI).

The kaiako survey expanded on these views, and identified a range of IB elements that were essential for them to build their knowledge and help them apply IB in their ELS. Most notably, the elements of the pilot programme that make clear IB strategies were essential for the large majority of participants; these include specifically: the IB workshops (76%, $\pm 7.8\%$), the programme handouts put together by the group leaders building on the IB materials (70%, $\pm 8.3\%$) and the IB teacher books (68%, $\pm 8.5\%$).

The New Zealand materials – He Māpuna te Tamaiti (74%, $\pm 8\%$) and Te Kōrerorero (68%, $\pm 8.5\%$) – and the support from the participants’ ELS management (67%, $\pm 8.6\%$) were also viewed as essential by most participant, which may likely be due to the need to adapt the content for the New Zealand context. Knowledge of such key resources, and having the approval of their management team, would be important while adapting any programme to the local ELS context.

Figure 2: Proportions of kaiako survey participants (n=75) that reported each of following elements as “essential” to build their knowledge and help them apply IB strategies in their ELS, contrasting how IB was delivered (grey) with the existing materials and ELS (red) and IB materials (black)

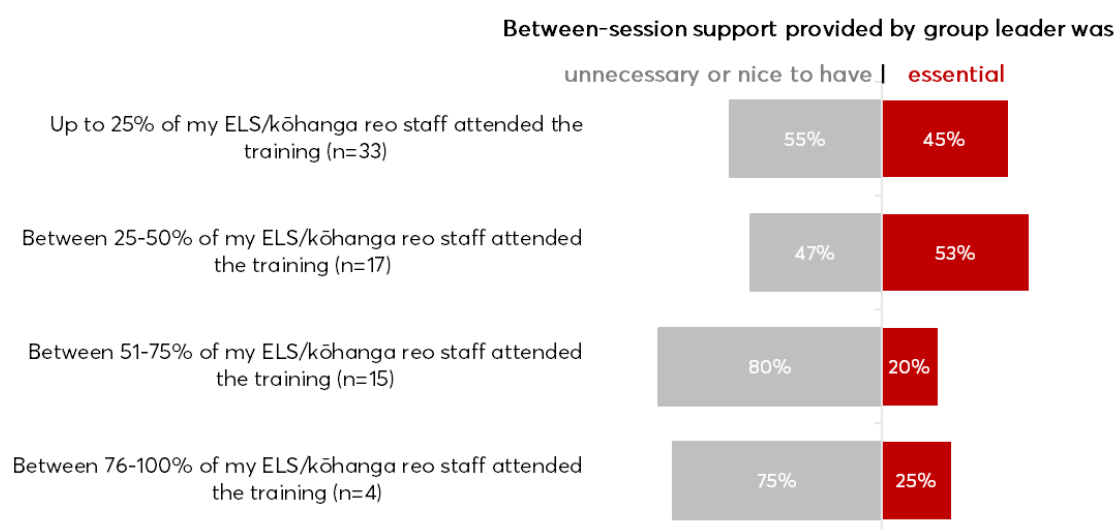


A proportionally smaller group of kaiako participants viewed the ‘ways of working’ (e.g. training as a group, between session support and collaboration) as well as IB resources (e.g. IB toddler book, vignettes and puppets) as essential to build knowledge and help them apply IB in their ELS.

Group leader support and coaching was useful to enhance practices

As shown above in Figure 12, most participants did not feel the between-session support provided by the group leader or the puppets were essential to build their capabilities to deliver IB, nevertheless 39% ($\pm 8.9\%$) of participants believed these were “essential”. What is notable about this result is that individuals that trained as a group had fewer with these strong views about these support sessions in comparison to those individuals that trained with fewer of their ELS staff. More specifically, individuals who were trained with less than half of their ELS staff were 3.5 times more likely to value the between-session support provided by group leaders.

Figure 3: Proportion of kaiako survey participants (n=72) that reported the between-session support provided by the group leader was “essential” to build knowledge and ability to apply IB



This is not to say that those trained as a group do not benefit from these sessions. In one centre, the teachers would record each other applying strategies with the tamariki. The group leader, when visiting the centre for peer coaching, would review these recordings with each teacher separately, and provide feedback (PI). Given there were six teachers being trained in the centre, the group leader was at the centre all day (PI). This approach worked well for this group-trained ELS.

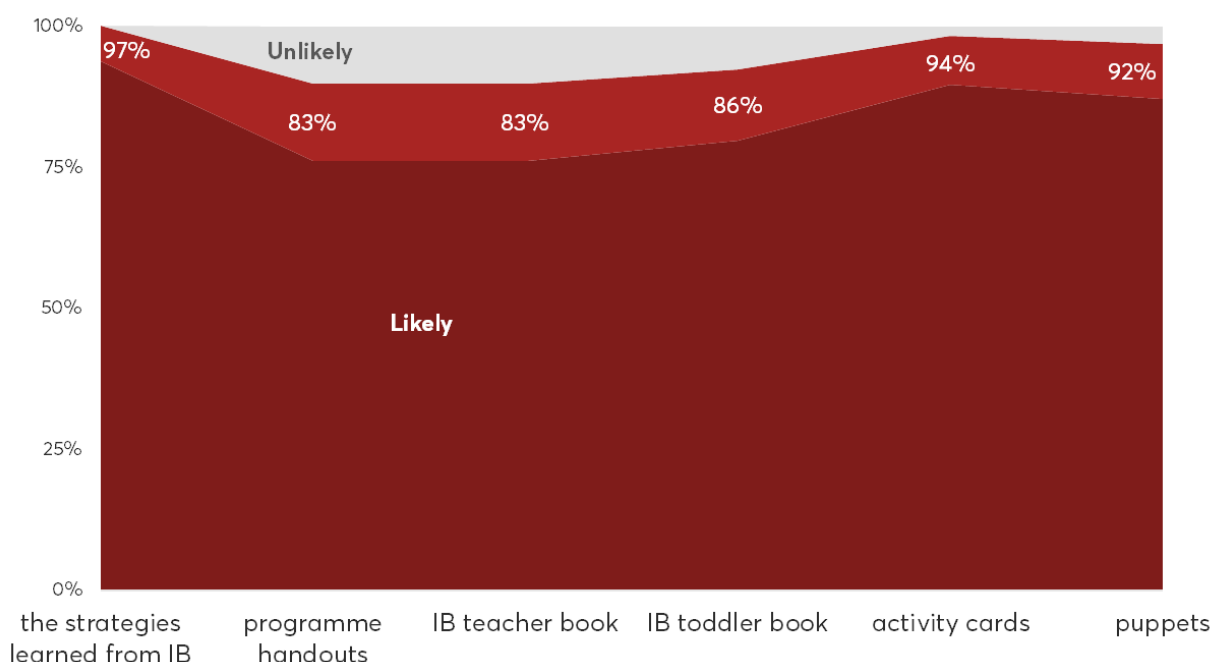
Perhaps not viewed as essential, per se, but the group leader support was believed useful to enhance practices. ELS with fewer kaiako being trained reflected similarly that the group leader visiting the centre helped them reflect upon the practices and strategies, and this was a beneficial component of the training (PI, PI). It helped them ensure their practices were effective while the kaiako were building confidence in these practice – the group leader between session support “*elevates it a lot more*” (PI).

In another focus group, one of the trained participants (an ELS manager) would show her colleagues how to apply a strategy in preparation for the group leader’s visit (PI). When the group leader visited the service they would provide feedback to others, reflecting on the application of strategies relevant for them. The participant believed that by training her team and then having these practices reviewed by the group leader enhanced her learning, as well as that of other kaiako in her service (PI).

The resources require careful consideration in terms of the time required of the group leaders, as well as the benefits for kaiako.

The participant survey respondents were asked about how likely they would continue to use a range of resources and strategies from IB. What was most notable was that nearly all participants would continue to use the IB strategies (97%, $\pm 3.1\%$), as well as the wider resources, including the puppets (92%, $\pm 4.9\%$), activity cards (94%, $\pm 4.3\%$), the IB toddler (86%, $\pm 6.2\%$) and IB teacher (83%, $\pm 6.8\%$) books, as well as the programme handouts (83%, $\pm 6.8\%$). This suggests that the strategies and resources will likely have continued purpose and use after the training ends.

Figure 4: Proportion of kaiako survey participants (n=74) that reported how likely they would continue to use strategies and resources relevant to IB



Although the programme handouts were viewed as “essential” by most kaiako survey participants (70%, $\pm 8.3\%$, c.f. Figure 12) and these handouts would continue to be used by participants (83%, $\pm 6.8\%$, c.f. Figure 14), the paperwork that accompanies the training was also considered to be excessive, at least by some kaiako (P4) and group leaders (GL, GL). It was necessary to consider the time to compile the necessary paperwork for the training session, and then deliver the paperwork to each participant (GL). When delivering online, paperwork proves an additional challenge in terms of getting the information to participants and making sure they receive it in enough time to prepare for the training. It was estimated that the associated material preparation took approximately one hour for group leaders, in addition to delivery (GL).

Group leaders also found the IB resources useful, but noted that to work effectively, it was necessary that the group leader select these carefully, as it was claimed they are not all relevant or would not be considered “best practice” in New Zealand (GL), and they were considered out-of-date in terms of content and the DVD format (GL). The selection of appropriate resources also required group leader time, in particular in this early pilot phase, further suggesting that the resources need consideration in terms of the time costs to the group leaders, and benefits for kaiako. If the pilot programme resources and learning are systematically pulled together in a New Zealand relevant package, it is expected that the time required of group leaders will reduce.

KEQ2: How well has the programme been adapted to the New Zealand and local context?

A range of evidence was used to answer the question about how well the programme aligns and has been adapted to the New Zealand and local context, including an analysis of IB content alongside the New Zealand resource He Māpuna te Tamaiti, a participant survey, a group leader survey and focus groups with Ministry officials (KS), group leaders (GL) and kaiako participants (PI). The data was triangulated and synthesised to assess relevance. The results showed that the IB content was relevant to the New Zealand context, and although further adaptations and alignment are likely required to 'cement' this relevance, this will be ongoing to meet the diversity needs across the ELS context.

Relevance to New Zealand

IB provides strategies in how kaiako may action the principles of He Māpuna te Tamaiti.

He Māpuna te Tamaiti is a New Zealand developed resource designed for kaiako in early learning settings. Its purpose is to support kaiako to understand and draw on effective practices that enhance children's social and emotional competence, engagement and learning. The resource includes a book, cards and a self-assessment tool. As it is a resource developed specifically for the New Zealand setting, the relevance of IB within a New Zealand setting can be seen as the clear relationships between the two.

First, IB and He Māpuna te Tamaiti both aim to create safe and supportive environments, prioritising the cultivation of positive relationships with toddlers. They both highlight the importance of daily routines and consistency with children to help them feel settled and secure. In particular, IB emphasises the key role of parents and caregivers during these routines, with a particular focus on managing separation anxiety.

Incredible Beginnings and He Māpuna te Tamaiti both agree that positive behaviour and emotional literacy can be learned. He Māpuna te Tamaiti co-construct values with whānau or ensure whānau understanding of and alignment with the philosophy of the early learning context. He Māpuna te Tamaiti also highlights the importance of cultural inclusivity through signage, home languages and resources. However, He Māpuna te Tamaiti does not refer to neurodiverse tamariki. Contrastingly, IB is acutely aware of neurodiverse tamariki yet does not appear to actively acknowledge cultural differences.

Next, when considering the focus on tamariki, both IB and He Māpuna te Tamaiti encourage tamariki to develop positive peer friendships and healthy peer interactions. They support tamariki sharing, helping and taking turns, and the importance of positive teacher attention and encouragement for strengthening social skills.

Incredible Beginnings and He Māpuna te Tamaiti utilise a range of techniques to remove barriers and encourage participation, engagement and learning. For example, He Māpuna te Tamaiti broadly promotes kaiako routines to be inclusive, supportive and helpful so all

tamariki can participate³⁵. In addition, He Māpuna te Tamaiti remains flexible about how and in what context their resources are used. IB actively encourages high employment of activities, such as puppets, songs, interactive reading methods, picture play scripts and pretend play, to increase tamariki engagement with their peers as well as with their learning.

Incredible Beginnings and He Māpuna te Tamaiti appear to manage transitions in a similar way. IB uses songs to facilitate transitions while He Māpuna te Tamaiti uses visual cues and rituals to support transitions and make them enjoyable.

Finally, both resources focus on knowing and managing behaviour. IB and He Māpuna te Tamaiti support tamariki to build emotional literacy and capacity to regulate their emotions. IB positively encourages expressions of emotion, as well as an articulation of what those emotions are. They also prioritise the learning and teaching of empathy.

Incredible Beginnings and He Māpuna te Tamaiti both appear to prefer a preventative approach to challenging behaviour, with clear behavioural expectations and boundaries set for tamariki. However, when IB and He Māpuna te Tamaiti address challenging behaviour, they aim to do so in calm and caring ways. This is primarily done through modelling and oral language. In both IB and He Māpuna te Tamaiti, teachers model strategies with the long-term aim that tamariki will learn these strategies so they are able to calm themselves down. He Māpuna te Tamaiti responses and consequences to difficult behaviour are presented at a macro level, leaving room for both discretion and ambiguity. Whereas IB outlines specific techniques and strategies that it encourages teachers to use, such as the 'calm down thermometer' and 'developing happy places imagery.' During periods of heightened emotions, IB encourages emotion coaching in order to model and ultimately prompt emotion language. Oral language too seems to be critical for He Māpuna te Tamaiti. In particular, the significance of positive affirmation. He Māpuna te Tamaiti encourages kaiako to reinforce positive behaviour in tamariki by verbalising what they perceive the tamariki to be demonstrating.

Overall, there are many similarities between IB and He Māpuna te Tamaiti. He Māpuna te Tamaiti presents a high-level approach, whereas IB provides clarity around the specificities of the actions it is endorsing, thereby being more programme focused. Nevertheless, adaptations are required to 'fit' the New Zealand context.

Adaptation and integration

Group leaders adapted the programme, but the group largely felt the pilot programme would benefit from further adaptations.

Incredible Beginnings is an American programme and product, with associated materials (e.g. DVD, handouts, books). Although an American programme, the group leader survey showed that all responding group leaders (n=10) felt that the IB content is relevant for New Zealand and the local context, as long as it was adapted to the context (100%). Nevertheless, it was expected that the IB developer would train and mentor the group leaders, and these group

³⁵ C.f. He Māpuna te Tamaiti: Supporting Social and Emotional Competence in Early Learning Inquiry and Self-assessment, teaching approaches and strategies to support learning and engagement, and specifically remove barriers to participation, engagement and learning.

leaders would tailor the programme integrating Te Whāriki and He Māpuna te Tamaiti with IB (KS, KS).

The group leaders were adapting elements of the training approach, integrating locally relevant resources used for training (e.g. activity cards, informed consent form) to be relevant for the New Zealand context and families (KS). The developer's willingness to integrate local knowledge and experience was seen as a strength of the programme by some (KS, KS), as well as the trust in the group leaders' professional judgements.

Group leaders identified, within the survey, a range of ways that they had adapted IB to be relevant to the context. These examples included:

- connecting and translating the content to the New Zealand resources, including Te Whāriki, He Māpuna and Te Kōrerorero (6 group leader respondents)
- weaving karakia (prayer), tikanga (practices) and waiata (song) throughout the programme (6 group leader respondents)
- integrated vignettes from other IY programmes (1 group leader respondent).

Even with the adaptations made by the group leaders, most believed that further work was required. More specifically, 8 out of then 10 respondents from the group leader survey still felt that the pilot programme required further adaptations. Some areas requiring further adaptations included:

- language, in particular translating the content into Māori and Pacific languages (1 group leader respondent)
- examples within the New Zealand context (6 group leader respondents), and a plan to be reflective of Te Whāriki and New Zealand teaching standards (2 group leader respondents)
- clear links to the New Zealand documents throughout (2 group leader respondents).

Further development of New Zealand specific collateral for IB would be important to support group leaders and practitioners administer the approach in an appropriate way (KS).

Group leaders focused on making the programme manageable, which requires deep content knowledge and facilitation expertise.

Some group leaders considered that the amount of information about the programme was potentially overwhelming for kaiako (GL, GL). There were initial communications and resources that were intended to be sent out to the ELS. There was also reportedly information coming from the Ministry, including resources that the group leaders had not seen (GL). Forms, such as the registration forms, reportedly required a rewrite by the group leader (KS) to be appropriate for the sector and the New Zealand context (GL, PI). These modified forms made registration easy or really easy (PI, PI, PI). They took information out that wasn't necessary and asked only the basic information relevant to the programme (GL). The registration process was viewed easy by all engaged kaiako (PI, PI, PI).

Before delivering to the participants, group leaders "sifted through" the IB information to try to determine how to adapt the information into shorter, 3-hour sessions. They noted removing elements of the materials to make it 'fit' but also ensure coverage of the key information (GL).

However, one participant reflected that the content was sometimes “repetitive” in the training sessions (PI), and that a 3-hour session can be reduced if this repetition is removed.

It should be remembered here that repetition is a feature of learning and then acquiring new skills. A degree of repetition helps to learn new language³⁶ but gains diminish after a small number of repetitions³⁷. Further, repetition, in particular experience-based rather than exposure-based training, helps learn new skills.³⁸

The group leaders within the focus groups reiterated the above adaptations, but also built upon this, further discussing how they adapted the delivery of the programme. In the focus group, one group leader noted that they modified the delivery approach, trying to make the training “active”, including games and singing, rather than focusing on watching vignettes or learning buzz words (GL). These types of adaptations require deep content knowledge to select the right content to cover, as well as facilitation expertise.

ELS participants integrated the local context within the strategies and resources.

The adapted programme was presented to the kaiako and likely adapted further as it was delivered. The kaiako participant survey showed that some kaiako (35%, $\pm 8.8\%$) felt the IB content was relevant to their local ELS/kōhanga reo context. Most (62%, $\pm 8.9\%$), however, believed the pilot programme required further adaptations, and there were two kaiako respondents (3%, $\pm 3.3\%$) that believed it was not relevant for their services. It is therefore unsurprising that more than half of these kaiako participants (56%, $\pm 8.9\%$) adapted IB to make it further relevant to their services.

The kaiako reported a range of ways in which they made the strategies, and more specifically the resources (e.g. the thermometer, schedules, show me 5, emotion and social coaching ideas), more relevant to their ELS – “tweak[ing] them to reflect the tikanga and philosophies”. These integrations included:

- translating aspects into the local language, e.g. *introducing sign language and gestures, or te reo Māori* (14 kaiako survey participants), *showing emotion cards in Māori and Tongan languages* (PI, PI)
- making relevant visuals, e.g. *We have taken photos of our tamariki showing us the different emotions. We also have visuals of our tamariki displaying the show me 5 rules.* (7 kaiako survey participants)
- integrating song, cultural references, local objects and resources, e.g. *We are a rural centre based on a working dairy farm. We have used the emotions meter but adapted it by including objects from the farm such as a pinecone reminds us of feeling angry as it is spiky* (5 kaiako survey participants), as well as lullabies and stories (PI, PI)

³⁶ Ofen-Noy, N. Dudai, Y. Karni, A. (2003). Skill learning in mirror reading: how repetition determines acquisition, *Cognitive Brain Research* 17, 507-521.

³⁷ Ofen-Noy et al. (2003).

³⁸ Patel, V., Craig, J., Shumacher, M., Burns, MK, Florescu, I., Vinjamuri, R. (2017). Synergy Repetition Training versus Task Repetition Training in Acquiring New Skill, *Front. Bioeng. Biotechnol.*, 27 February 2017, Sec. Bionics and Biomimetics, <https://doi.org/10.3389/fbioe.2017.00009>

- integrating role-play and being culturally specific, e.g. *Sharing stories from Tongan culture which align to the lessons of IB – an approach reported as helping the participants, whānau and tamariki understand and value themselves* (PI)
- integrating bi-cultural aspect relevant to New Zealand, e.g. *te ao Māori, Te Tiriti o Waitangi* (2 kaiako survey participants)
- weaving in existing New Zealand resources, e.g. *we linked strongly to Te Kōrerorero and He Māpuna as culturally appropriate resources to extend the IY strategies*. (2 kaiako survey participants)

Integration of te ao Māori and Pacific aspirations, values, language and cultural norms was believed helpful to engagement and learning, and this integration required knowledge and appreciation of the local values.

The fact that the IB pilot programme was not developed specifically for a New Zealand context was a recognised challenge for some from the outset (KS, PI). A key component of the programme was that it could be made meaningful not only to New Zealand but also specifically for Māori and Pacific cultures.

Those individuals that had enrolled, or at least some of the IB participants, felt that IB fits “well” into te ao Māori (PI, PI). They recognised that there was a clear alignment among these participants with Te Whāriki, given the focus on kotahitanga (the whole), ngā hononga (relationships), and mana reo (communication) (PI, PI). This alignment, the participants suggested, made using IB strategies easy. The participants also recognised, however, that some people may not agree. It was reported that individuals would have to be open-minded to consider “*other tools and strategies*” (PI).

When PLD is provided, some group leaders noted it was necessary to reflect the values and aspirations of the group (GL, GL, PI). For instance, when engaging Pacific peoples the group leader focused on the relationships, reflecting the value of “vā” within the culture. It was important to know the tamariki they work with and include the parents as part of the introduction of the programme. Community involvement was valuable as their goal was not only to support and see benefits for their tamariki – “see tamariki smiling” – but also to strengthen the family unit and the relationships around this (PI).

Some group leaders explicitly discussed “follow[ing] the cultural protocols of Māori and Pacific peoples with whakawhanaungatanga (the process of establishing relationships) at the heart of our practice, we were able to create ahurutanga (safe space), talanoa (story telling), and create a safe space in the vā (the space and relational context in which relationships exist)” (GL). The focus on feelings of safety is further reflected in early engagement, as least for one group leader that “acknowledged and equalised existing perceived power imbalances to create a collaborative learning environment for all” (SS).

Language was a commonly reported adaptation. It was not simply as a point of communication strategies, but having the content in your language allows you to have “a deep talanoa” or dialogue with the kaiako and community. It was recognised as reducing the space in between the group leader and participants, reducing any feeling of intimidation, and improving the interactions through warmth (PI).

These integrations of te ao Māori and Pacific values also require reflection, an understanding and valuing of selves. The integration of stories, for example, was not simply reflecting something familiar to the participants but rather helping the participants, whānau and tamariki understand and value themselves through this process (PI).

One group leader reflected upon the changes in delivery to meet the needs of the different participants and their ways of being. Adapting the focus and delivery approach was a significant learning experience for this group leader, as explained below.

During the first session the facilitators adhered to fidelity of the Incredible Beginnings methodology. Through showing video and facilitating discussion related to the topic, and practices interspersed by team building, fun icebreaker activities. By midway through the first day it was clear that this style did not fit with the Pasifika style of learning. They did not relate to the videos and found them off putting.

Each day we were flexible and adapted the way that we delivered. Always we had in the back of our minds that we had to keep them engaged while learning and always building trust, whakawhanaungatanga and sticking with relevancy to their own roles.

As the days went on, with the way we managed this connection and relationship being the most important, we noticed that the participants were willing to be vulnerable, share deeply, thoughtfully reflect, and discuss their ideas, experiences and how they could use the strategies in both their jobs and personal lives.

Delivery also reflected the culture in terms of food. One group leader sent food parcels before the online sessions, as "kai is very important" culturally (GL). The practice of sharing food is an important aspect relevant to both Māori and Pacific cultures.

The focus on whakawhanaungatanga, caring for the participants and being reflective of their values, was believed helpful to overall engagement and ultimately to the learning (GL). As noted by one group leader, "As facilitators we had to be vulnerable and be open to following the participants, by participating in the games and icebreakers that they led ... Once this mutual trust and respect was established the participants were willing to go on this journey with us. These participants went way further with us than we could ever have travelled if we were following the American style of the Incredible Beginnings model."

The conversations with ELS groups were important to ensure IB aligned with their values (GL), but one group leader noted a challenge with IB in that the values were not the same as Māori and Pacific values (GL). For instance, in some cultures, people don't say "goodbye" to their tamariki. If you didn't know this, and simply applied the learning as it was, the IB programme can be considered by recipients as "judgemental" of cultural practice (GL). It was important for the group leaders to understand this, as they need to carefully select components of IB relevant to the community (e.g. vignettes) that would enable learning. Further, the subsequent discussions with the participants would not always reveal this – notably, in some cultures, an individual would simply nod but wouldn't openly express negative views.

KEQ3: How well are ELS set up to effectively practice IB strategies in their centres?

The evidence was used to answer the question about how well set up the ELS are to effectively practice IB strategies. The data were triangulated across the surveys, focus groups and secondary data to examine confidence, changes in embedding practices and future intentions, and assess the efficaciousness of the programme. The results showed that the IB pilot programme has exceeded expectations, consistently showing significant and large shifts in relation to social emotion and regulation teaching practices within the ELS. The collective results also suggest these practices may likely continue among trained kaiako moving forward.

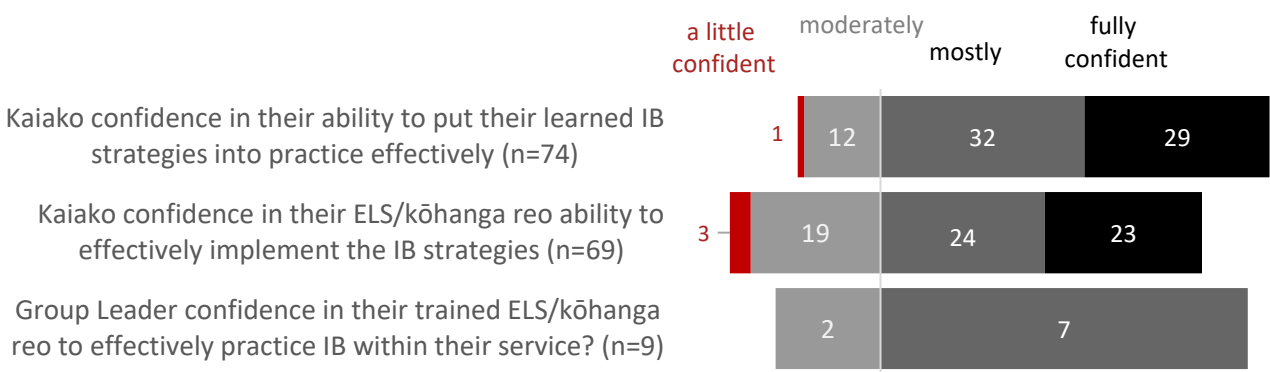
Reported confidence and practices

For the most part, participants were confident in implementing the strategies.

The two surveys, conducted towards the end of the training sessions, showed a high level of confidence in the participants being able to implement IB effectively. When asking group leaders, the majority (77%, $\pm 15.6\%$) were “mostly confident” that their trained ELS/kōhanga reo could effectively practice IB within their service. The majority of kaiako survey participants (82%, $\pm 6.9\%$) reported feeling mostly or fully confident that they could put the IB strategies in place, with only 18% ($\pm 6.9\%$) feeling less confident than this. This is a markedly high confidence level in individual abilities. Marginally fewer kaiako (68%, $\pm 8.4\%$) were confident in their ELS/kōhanga reo ability to effectively implement the IB strategies, with 32% ($\pm 8.4\%$) of kaiako feeling less confident than this.

This lower level of confidence about their broader ELS ability may be because not all individuals in an ELS were trained in IB. This lack of training may raise questions for them about their ELS abilities to deliver IB to any effect.

Figure 5: Reported confidence in abilities to put IB strategies into practice



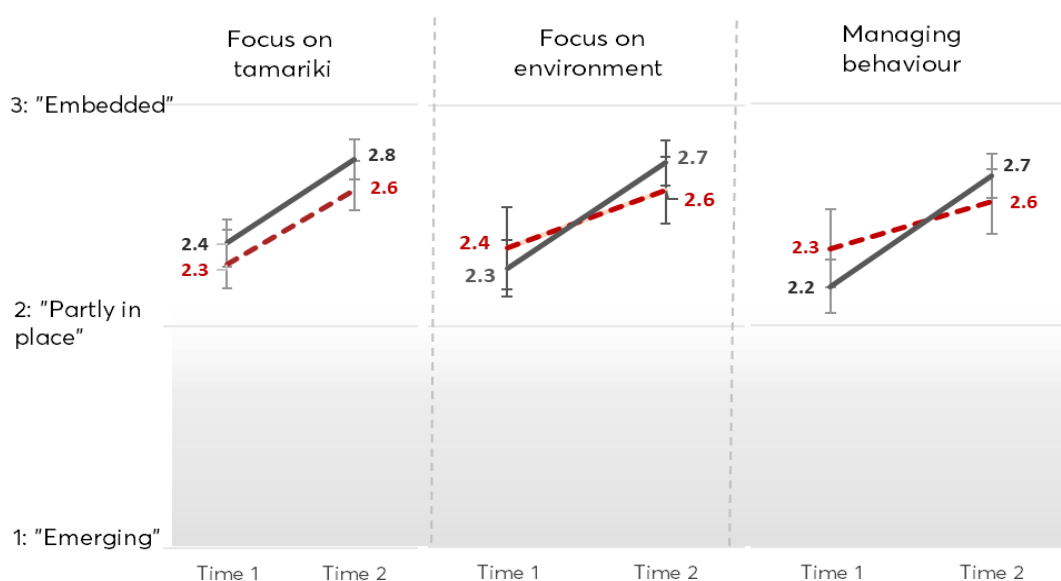
Participants are embedding relevant practices to build social and emotional competence, and those that trained as an ELS group made bigger positive shifts towards embedding these desired practices.

Group leaders collected data early in the IB training and again at the end using He Māpuna te Tamaiti self-assessment tool. These data were used as part of the evaluation to explore any initial changes in practices relevant to social emotional regulation. Given the alignment between He Māpuna te Tamaiti and IB, the data was considered useful in terms of evidence of early adoption (c.f. *Relevance to New Zealand resources* section). These three factors³⁹ included practices which reflect: a focus on tamariki, a focus on environment and managing behaviours.

The evaluation also wanted to examine if these changes in practices differed significantly for participants that trained as a group from their ELS when compared with those participants that trained as one person from their ELS.

The results⁴⁰ showed significant improvement in practices across the three themes in He Māpuna te Tamaiti,⁴¹ and these improvements differed according to how kaiako were trained – either as a group or as an individual from their ELS – at least for two of the sets of practices.

Figure 6: Change in participants' practices – a focus on tamariki, a focus on the environment and managing behaviour - from the start (time 1) to the end (time 2) of the IB programme. Participants include those that took part in the IB training as an ELS group (grey line, n=56) and those they took part as one in IB training as one person from their ELS (red dotted line, n=26) (source: IB registers)



³⁹ Both exploratory and confirmatory factor analysis was used to identify and then confirm patterns in the responses, making a large set of questions more manageable to understand and reflective of the response patterns. Three groups of practices, or factors, were derived from the responses to 19 items in the self-assessment tool (c.f. Appendix 3), which estimated how embedded these practices are for the ELS, from not in place ('1'), to partly in place ('2') or embedded ('3').

⁴⁰ Not all programmes completed this self-assessment with their participants. Nevertheless, there was a notably high proportion of programmes that did, which provided 107 before and after IB training results, representing 55% of the overall cohort.

⁴¹ A repeated measures Analysis of Variance was used to compare scores before and at the end of the IB programme (time: 2 levels) according to three practice themes: behavioural management practices, focus on ākonga practices and focus on the environment factors. The analysis incorporated type of training (either trained as an individual from the ELS or as a group from the same ELS) as the between subject factor. There was a significant interaction effect for time, practice theme and group/individual training (Wilks' Lambda = .88, F_{2,160} = 5.43, p < 0.01).

The first set of practices, namely those practices with a *focus on tamariki*, did not differ according to whether or not the participants' trained as an ELS group or not. Nevertheless, the kaiako reported more embedded practices towards an explicit focus on the tamariki, shifting from 2.3 (practices just above 'partly in place') to 2.7 (practices just below 'embedded') after the training.

This set of practices estimated how embedded kaiako practices were in relation to:

- helping children build resilience and a sense of self-worth
- providing positive guidance during heightened emotions
- fostering peer friendships and interactions
- supporting children to care for and empathise with others
- helping children support others in their learning
- helping children solve social problems during peer conflict
- supporting children to manage their learning
- providing rich and varied learning opportunities
- removing barriers to participation, engagement and learning
- supporting transitions.

The participants also shifted to a more embedded practice in terms of a *focus on the environment*, including:

- establishing a positive climate
- constructing values
- developing and promoting expectations
- establishing consistent routines
- creating a safe and inclusive space.

Although participants reported, on average, having these practices more than partly in place (~2.4) before the IB pilot programme, at the end of the programme, those that trained as a group shifted even more towards embedded practices (2.7) than those that trained as an individual from the ELS (2.6). This is a significant shift towards having this positive focus on environmental factors embedded within their practice.

Where the ELS training as a group had the greatest influence on practice shifts was in relation to *managing behaviours*. This set of practices estimated how embedded the following were:

- supporting children to understand, express and regulate their emotions
- knowing about behaviour and responding to problem behaviour
- supporting positive behaviour.

Among those that trained as individuals, this ability to understand and manage behaviours shifted from just above 'partly in place' (2.3) towards embedded practices (2.6) after the

training. The shift in behavioural management practices improved even more among those that trained as an ELS group, shifting from partly in place (2.2) before IB training to even closer to embedded practices (2.7) after the training. While both groups showed having behaviour management practices more embedded into their practice – which would be represented as a 3.0 – those that trained as a group saw the greater shift.

It is unclear if these results suggest that there is a better learning experience when programmes are delivered to a group within an ELS, or that the participant group has the practical advantage of reinforcing practices with their colleagues within the ELS. Focus group feedback suggests that those kaiako and managers trained together as a group within an ELS are better prepared to embed IB practices. ELS felt well prepared and confident to apply the IB strategies with their tamariki, and their practices were considered embedded across the service, with staff supporting each other and regular reviews and feedback provided on each other's practices (PI). Other participants, notably those that trained as a single person within their ELS, felt that the training provided them with confidence and strategies, but they needed much more support to put the practices into place (PI, PI, PI).

Kaiako intend to continue to use the strategies

The kaiako participant survey also asked about how likely they were to continue to use a range of resources and strategies from IB. Most notable was that nearly all participants (97%, $\pm 3.1\%$) reported they would likely continue to use the IB strategies in their ELS in the future (c.f. Figure 14).

DISCUSSION & CONCLUSION



What we conclude

The evaluation was commissioned to help the Ministry understand the effectiveness of the IB pilot implementation process at its different stages, and how the programme's content and services are relevant and efficacious for the early learning services sector. The pilot was successful, meeting or exceeding all expectations of the pilot programme in New Zealand in this early stage. It was also successful in providing useful learning for the Ministry of Education moving forward, in particular if scalability is the desired goal.

The evaluation conclusions are summarised below.

The Incredible Beginnings pilot programme was relevant to New Zealand, and further relevance can be achieved.

Although further adaptations and alignment are required to systematise the relevance to New Zealand, the results showed that the IB pilot programme was relevant to the context in which it was delivered. It also aligned well with He Māpuna te Tamaiti. Incredible Beginnings and He Māpuna te Tamaiti both aim to create safe and supportive environments, prioritising the cultivation of positive relationships with tamariki. They also both focus on tamariki, and encourage positive peer interactions and friendships, and focus on knowing and managing behaviour. They align well as both offer a preventative approach in caring ways, such as through oral language and modelling.

The key differences are that He Māpuna te Tamaiti focuses more on inclusivity in relation to culture, and the practices are presented as principles rather than practices, while IB outlines specific techniques and strategies that they encourage teachers to use, in particular around managing difficult behaviours. Nevertheless, group leaders adapted the programme so that it is relevant to the New Zealand and local ELS context. This included connecting and translating the content for the New Zealand resources, weaving cultural kaupapa throughout the programme and tailoring the content alongside the kaiako according to their centre values and tikanga.

ELS participants, often with the group leaders, also adapted the programme to ensure relevance to their local context. This included adapting the language, making visuals, integrating song, cultural references, local objects and resources, integrating cultural ways of knowing and weaving in existing ways of working.

Although ongoing differentiation will be required within workshops moving forward, there are further opportunities to adapt the programme systematically for New Zealand. This includes making clear the links to New Zealand documents, integrating te ao Māori and Pacific ways of knowing and learning, translating the programme from English to te reo Māori and Pacific languages, building upon the pilot experiences, and developing examples within the New Zealand context. These adaptations require specialist knowledge and appreciation of local values, which will again have an implication for workforce requirements during this further design stage and ultimately scalability of the pilot.

Consideration 1. Adapt the programme to integrate the learning from across the first cohort of programmes, making use of the developed visuals, songs, translations and resources, as well as the cultural references built up from this experience.

Consideration 2. Extend upon these materials, further designing the IB within the context of New Zealand, making use of the collective experiences of the group leaders alongside contextual experts.

The Incredible Beginnings pilot programme was effective, albeit somewhat inconsistently.

The results showed that the IB pilot programme was effective in its implementation, meeting many of its programme implementation and delivery objectives, albeit somewhat inconsistently in this initial cohort. This likely reflects not only the COVID-19 environment in which the pilot was operating, but also the early stage of a new developing programme within New Zealand.

Experienced and accredited IY facilitators were recruited and trained to deliver IB. Group leader training was delivered more efficiently than planned, and not all group leaders could attend every session, nor were all group leaders able to take up further learning opportunities to build relationships and professional practice. Further time was needed to adapt and implement IB. This initial stage of adaptation, making the content relevant to the New Zealand context, is key to the success of IB within New Zealand and therefore it is vital to consider how to further adapt the programme moving forward. This is not to dismiss the more 'generic' IB content but rather the requirement that this be contextualised successfully.

Many of these facilitators successfully recruited ELS and participants into the training, although some had struggled to meet the target of recruiting 80% Māori and Pacific participants. The different success rates across the providers appeared largely due to factors relevant to the group leader. What was learned from this pilot is that established relationships and networks are key to successfully recruit this target cohort. Along with knowing how to engage and get the right people involved, and passion and trust in the group leader. To a lesser extent, flexible delivery was also important.

The recruited group leaders also delivered 16 programmes from February to August 2022. Even though they operated within a COVID-19 environment, they delivered workshops during the day and at night, as well as face-to-face and/or online delivery approaches. Most participants attended regularly, which would likely be supported by teacher release payments.

The group leaders reported delivering with fidelity, adhering to the IB programme structure and sequence while differentiating the delivery for the specific kaiako and ELS contexts. This is not to say all content was strictly adhered to, as some content was adapted given the context of New Zealand (e.g., time out to calm down), and other resources were used selectively (e.g., vignettes). The programme strategies were useful to focus kaiako practices, while the workshops and the key New Zealand resources were valued by participants as necessary to build their knowledge.

Given the pilot nature of IB, the evidence provides useful learning for the future implementation of IB, and for programmes introduced in New Zealand ELS. Nevertheless, the requirements will likely change as the programme matures. During the pilot stage, when there is little to no evidence on the effectiveness of the programme for Māori and Pacific tamariki, it is vital to be able to explain how this American programme is relevant within a New Zealand context, and it requires the group leader to advocate on behalf of the programme. This

unproven period is when leveraging relationships is most important; it requires trust and is where the group leaders and ELS are most vulnerable.

Until the programme matures, and this evidence is available on Māori and Pacific tamariki, group leaders will need a specific skillset which may be somewhat limited – notably, IY experience and accreditation, facilitation skills and experience, a deep knowledge of New Zealand and culturally relevant resources, established relationships and trust with specific targeted ELS. These workforce requirements would likely reduce, and therefore it would be easier to scale the programme once the design is systematically adapted for New Zealand. This includes careful consideration of the IB resources, the delivery approach and content, including language, as well as the targeted participants (e.g. levels of experience and positions within the ELS).

Using the learning from the initial stage means that considerable work has already been done, but it needs to be integrated systematically across the programme rather than dependent upon the different group leaders. After these adaptations are agreed, a formal impact evaluation would be required to demonstrate the programme's impact specifically on Māori and Pacific tamariki and their whānau. Only then will the recruitment be easier among these target groups. Until then, trust and the required workforce capabilities will remain a necessary precursor to recruitment and engagement, and scalability will be limited.

Consideration 3. Adapt the programme systematically, making use of learning from the pilot and the experience of the current cohort of group leaders. It would be important to test the revised programme content with the IB developer.

Consideration 4. Adapt the approach for recruiting group leaders, ensuring group leaders have the capabilities required to recruit the target ELS and participants successfully.

Consideration 5. Ensure the approach for recruiting ELS includes a personal and face-to-face approach is used with ELS and reaches out broadly from the ELS (including kaiako and whānau).

Consideration 6. Facilitate an evaluation of the adapted programme, specifically examining the effects on Māori and Pacific tamariki.

Consideration 7. Continue to deliver flexibly according to the needs of the participants.

The Incredible Beginnings pilot programme will likely have sustained practice shifts among participants.

The initial results showed that IB has exceeded expectations in terms of practices, consistently demonstrating significant and large shifts in relation to confidence and embedding desirable practices within the ELS.

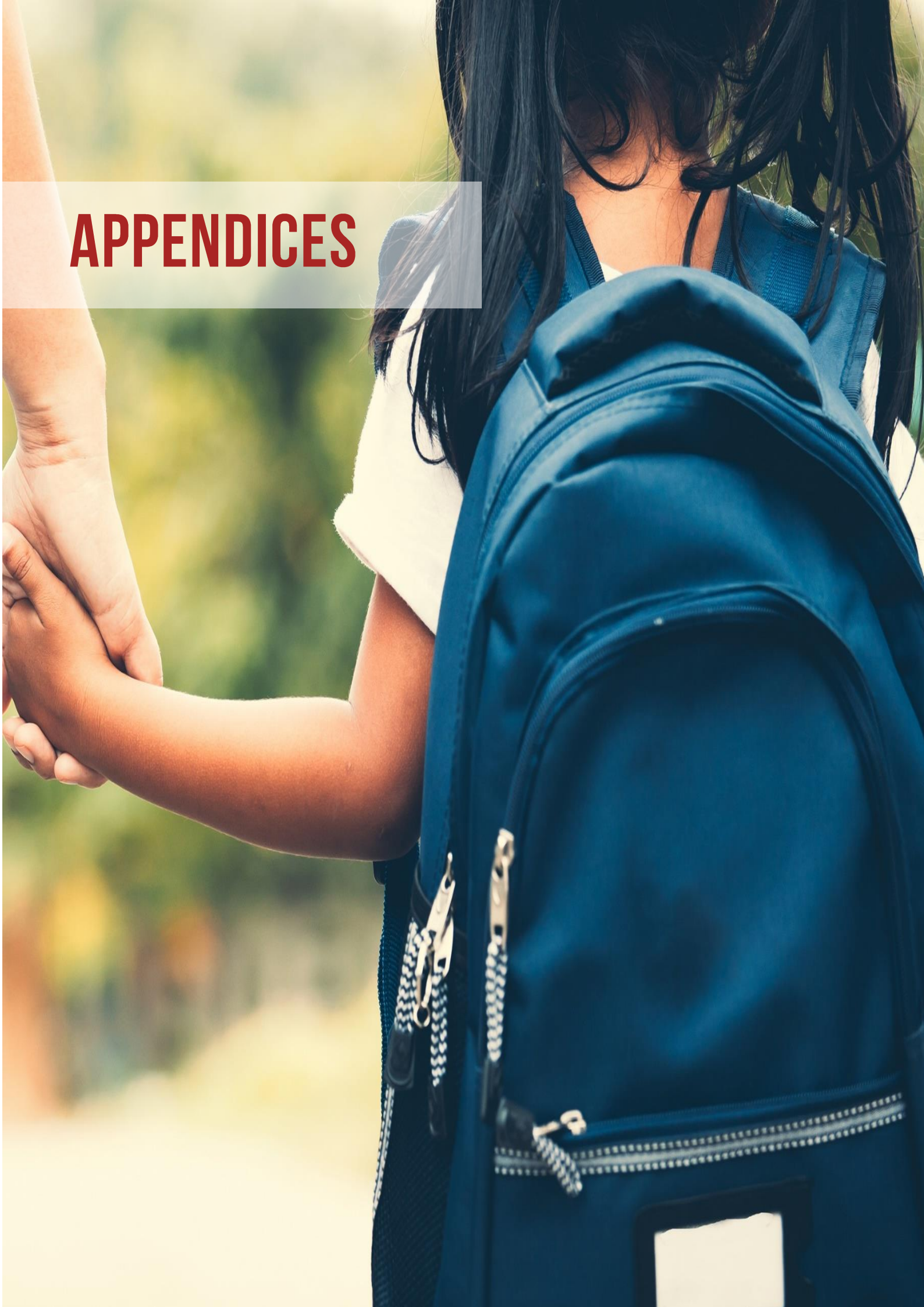
Kaiako participants and group leaders showed a high level of confidence to implement IB effectively. Kaiako participants have also moved closer towards embedding a range of desirable behaviours within their practice. More specifically, kaiako have made significant improvements in relation to managing behaviours, a focus on tamariki and a focus on the environment within their ELS. What was interesting is that these changes in practice, at least as far as a focus on the environment and managing behaviours, were achieved more among

those participants that trained as a group within the ELS rather than individuals. This further reinforces the value of IB in providing specific strategies and techniques when it comes to managing challenging behaviours compared to current New Zealand resources.

Given the reported likelihood of participants continuing to use the IB strategies in the future, the practice shifts will likely be sustained as kaiako continue to practice IB strategies in their ELS.

Consideration 8. Recruit and train at least two kaiako in each enrolled ELS for the IB programmes (where possible) and/or develop a community of learning to support kaiako in smaller ELS.

APPENDICES

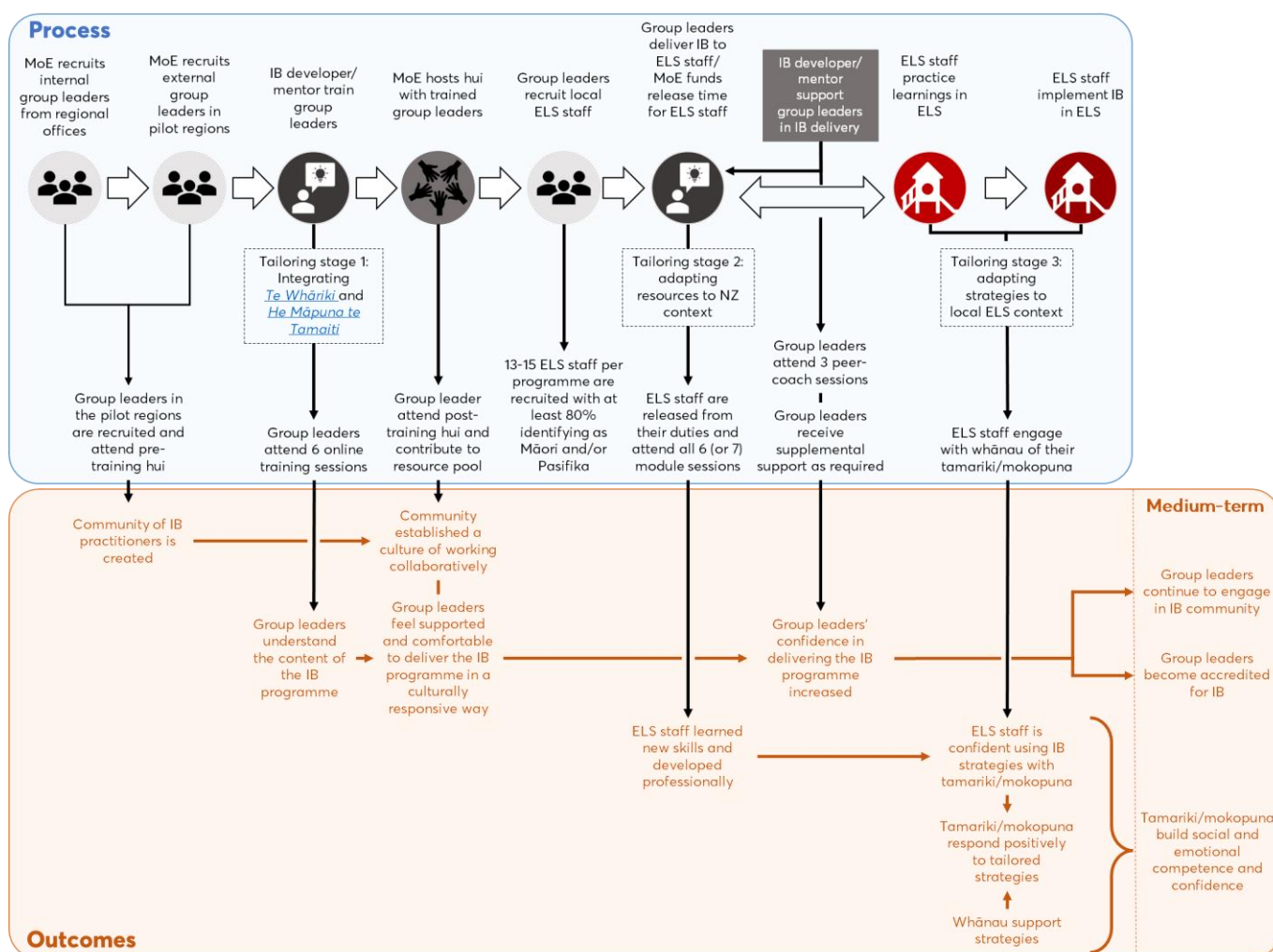


Appendix A: Evaluation plan

IB pilot programme

The following logic model was developed in collaboration with the Ministry of Education, and sets out the expectations in terms of the process (in scope) and outcomes (out of scope) for the evaluation.

Figure 7: IB pilot programme logic map illustrating the key elements of the programme and their sequence as well as expected outputs and outcomes



Evaluation criteria rubrics

The following rubrics were developed with the Ministry of Education prior to data collection, and applied to assess the gathered evidence and make judgments about the relevance, effectiveness and scalability of IB.

Table 2: Rubrics to assess the IB pilot programme during the initial cohort

Criteria	Did not meet expectations	Met expectations	Exceeded expectations
Effective/ scalable	IB rarely achieves set programme implementation and delivery objectives.	IB achieves set programme implementation and delivery objectives, albeit inconsistently.	IB consistently achieves set programme implementation and delivery objectives.
	IB delivery is rarely possible and can rarely expand beyond the pilot given implementation requirements and workforce capacity.	IB delivery is possible with the given workforce capacity and implementation requirements, albeit inconsistently.	IB delivery is consistently possible and can expand beyond the pilot given workforce capacity and implementation requirements.
Relevance	IB is rarely relevant to the people and ELS context.	IB is relevant to the people, and ELS context, albeit inconsistently.	IB is consistently relevant to the people, and ELS context.
Efficacious	IB rarely enables embedding IB practices in ELS, and few changes in relation to ELS staff abilities to facilitate social and emotional learning are evidenced.	IB enables embedding IB practices in ELS, albeit inconsistently, and evidence demonstrates some changes in relation to ELS staff abilities to facilitate social and emotional learning.	IB consistently enables embedding IB practices in ELS and is making significant and large shifts in relation to ELS staff abilities to facilitate social and emotional learning.

Approach/Methodology

This process evaluation used a mix of qualitative and quantitative methods to answer the evaluation questions.

We used a participatory approach to increase the engagement of key stakeholders in the evaluation process.

The overarching evaluation methodology adopted principles relevant to participatory approaches to engage and empower those potentially affected by the evaluation in its early stages (design and delivery). Specifically for the evaluation, key stakeholders were involved in various stages of the process, as shown in Table 3 below.

We sought to include these individuals in the design (selecting the appropriate tools and techniques, and/or designing the tools), data collection (collecting relevant information throughout implementation), and the analysis (identifying the value ascribed to different results). The participatory approach sought to promote use of the evaluation and evidence to support the achievement of outcomes for key stakeholders.

Table 3: Stakeholder list

WHO	ROLE	INTEREST	INVOLVEMENT
Pilot design and planning			
Ministry of Education – national office staff	Co-implementation, recruitment of group leaders	Information relevant to the overall success of the programme and future implementation	Co-design Interviews Sense-making session
Ministry of Education – regional office staff	Co-implementation, recruitment of group leaders (?)	Information relevant to the overall success of the programme and future implementation	Co-design Interviews Sense-making session
Pilot implementation and delivery			
Group leaders (internal and external)	Co-implementation, pilot facilitators, recruitment of ELS	Information relevant to the overall success of the programme and future implementation	Focus groups Survey
ELS staff	Co-implementation, programme participants	Information relevant to the overall success of the programme	Focus groups Survey
Implementation partners			
Programme developer	Developer	Information relevant to the overall success of the programme, fidelity of the programme	Sense-making session
Mentor/peer coach	Training and support of group leaders	Information relevant to the overall success of the programme, fidelity of the programme	Sense-making session
Beneficiaries			
Tamariki/mokopuna	Beneficiary	Information relevant to the overall success of the programme	Out of scope
Whānau	Beneficiary	Information relevant to the overall success of the programme	Out of scope

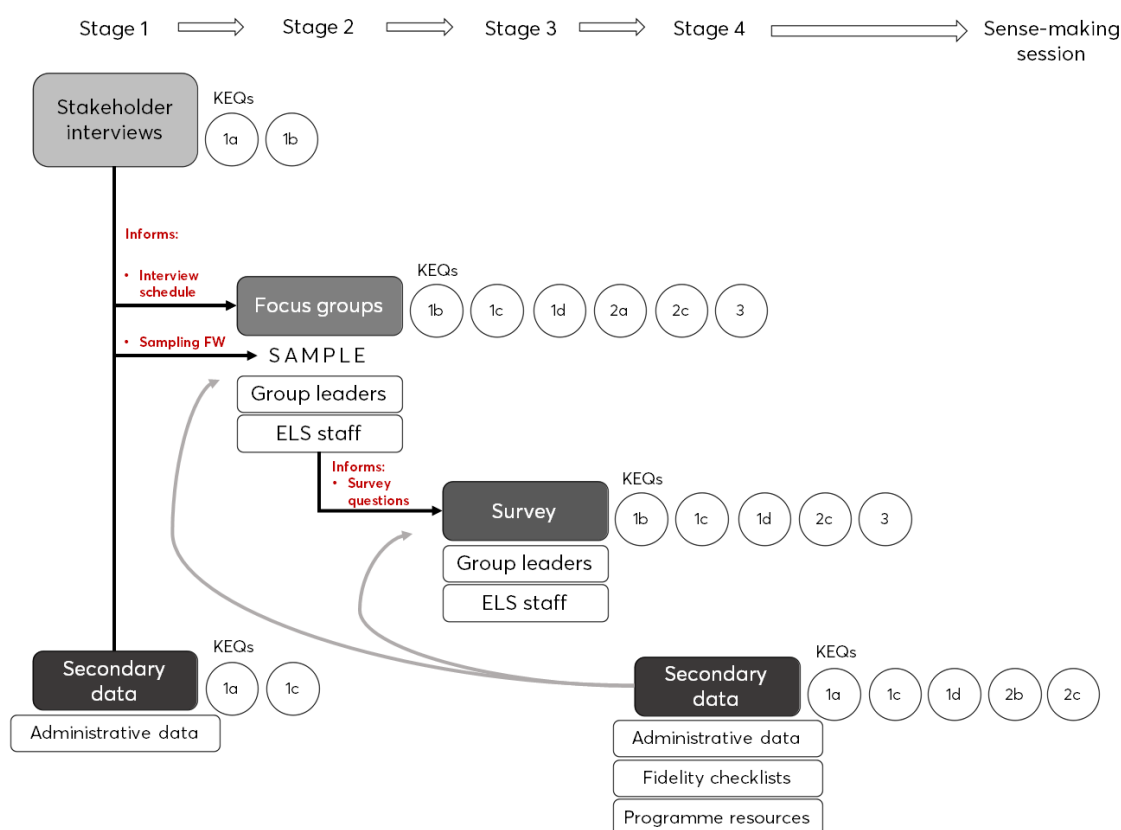
We applied a mixed-methods approach to the evaluation where data will be collected in a staged manner.

The evaluation used a mixed-methods approach, integrating both qualitative and quantitative data collection and analysis. Data collection was done in a staged, iterative manner where each stage focuses on specific methods to answer the KEQs while informing the subsequent stage and its method. This approach allowed us to test our emerging theories over time using different techniques.

The initial stage focused on interviews with key stakeholders from the Ministry involved in the project design and recruitment of group leaders, in addition to administrative data related to the programme and their participants collected by the Ministry. Information gathered in this initial stage informed the sampling framework and interview schedule for the focus groups with group leaders in the first instance, followed by programme participants (ELS staff). Insights from the focus group discussions then informed the questionnaire for the group leader survey and the programme participants (ELS staff) survey. Over the course of the different data collection stages we collated existing, relevant secondary data where they emerged, including information on programme resources. In addition, we sourced programme monitoring data and information on the fidelity of programme delivery administered by the Ministry, where they were available. Once all data collection and analysis were completed, we presented the evaluation's emerging findings to the Ministry's team involved in the co-design of the evaluation plan.

The staged process is outlined in Figure 17, highlighting the flow of information from earlier engagements informing the later stages.

Figure 17: Evaluation flow



Stakeholder interviews

We interviewed three Ministry staff involved in the pilot design and recruitment of group leaders for the programme who could provide background information and share experiences about the processes. We conducted interviews online using the videoconferencing platform Microsoft (MS) Teams, which reflected people's preferences. Each interview took approximately 60 minutes.

The interviews focused on capturing information about:

- recruitment approach and selection criteria
- challenges that occurred during the recruitment process
- identified factors and conditions that supported recruitment success
- characteristics of group leaders, their skills and experiences.

We sought to identify requirements to successfully recruit locally, as well as key variables in group leaders' characteristics to be considered for the sampling of those invited to focus group discussions.

Focus groups

We facilitated two focus groups with **group leaders (n=8)**. The sampling framework was guided by the information gathered through the stakeholder interviews. However, we sought maximum variation in the sample while also considering the budget. We worked closely with the Ministry around the engagement and communication with group leaders and sought the Ministry's agreement with the interview schedule. Specific areas we discussed with group leaders included:

- experience with their own training and support received
- process around the recruitment of ELS for their programmes and their learnings from that experience
- delivery approach and their learnings from that experience
- adaptations to IB resources and practices used in their programmes
- collaboration with other group leaders.

In addition to the focus groups with group leaders, we facilitated three focus groups with **programme participants (ELS staff)** in each group (n=7). The sampling of ELS staff was informed by the insights gained through the discussions with group leaders whereby maximum variation was sought, and in discussion with group leaders.

Information discussed included:

- enablers and barriers for participation in as well as experiences with the programme
- suitability of the programme content for their specific ELS context
- their adaptation to IB practices used in their ELS
- their experiences with embedding IB practices in their ELS.

Group discussion with ELS staff were guided by the Ministry's He Māpuna te Tamaiti self-assessment tool. ELS staff focus groups will be key to understanding the relevance of the programme to different contexts, and how it supports knowledge and practices. We explored and compared points of variation in these discussions to understand how context influences delivery, and delivery influences ELS practices.

All focus groups were held online over 60-90 minutes, using the videoconferencing platform MS Teams. At the end of each focus group, there was a validation exercise where we will summarise and confirm the data gathered from the group interview and identify overarching themes. This process will ensure credibility and accurate interpretation of the collected information.

The collective and diverse experiences collated from the qualitative engagements were used to inform the survey instruments.

Survey

Based on the information gathered through the focus groups, we developed two surveys – one for group leaders and one for participating ELS staff – to test findings from the sample against the entire populations. Survey questions were guided by the discussion with the Ministry.

Again, we will work closely with the Ministry and group leaders around the communication and logistics in contacting and distributing the online questionnaire survey to group leaders and participating ELS staff, respectively.

Secondary data

We recognised the efforts made by the Ministry in systematically collecting information relevant to the programme. We reviewed the secondary data available about the design, delivery and outputs. The information will be used to examine the unique characteristics of the programme (e.g. enrolment and participation), identifying key competencies (e.g. He Māpuna te Tamaiti self-assessment) and provided context around the support available to group leaders and ELS staff.

Secondary data used in the evaluation included:

- The IB programmes register, including both administrative data (e.g. registrations, participants' demographics, attendance, etc.)
- He Māpuna te Tamaiti self-assessment

We will work closely with the Ministry to identify relevant information to be included in the evaluation and the secure transfer of information.

Sense-making

As part of the overall approach, we engaged the primary users of the evaluation from the beginning. We embedded a report-back session after all data collection stages were completed and data has been analysed. The purpose of this workshop was to share and make sense of the emergent findings to maximise use of the evaluation process throughout delivery. More importantly, as the evaluation focuses on learning, the workshop promoted leadership through evidence and challenging discussions. The feedback formed part of the evaluation data and our overall adaptive approach to evaluation.

Appendix 2: IB programme content and objectives

Content and Objectives of the Incredible Years® Incredible Beginnings™ Program (Ages 1-5)			
Content	Objectives	Content	Objectives
Workshop #1 Building Positive Relationships With Toddlers and Managing Separation Anxiety	<ul style="list-style-type: none"> Understanding ways to build positive relationships and secure attachment with toddlers. Understanding the importance of welcoming greetings and predictable goodbye routines. Helping toddlers manage separation anxiety. Involving parents in supporting separation routines and reducing children's anxiety. Fostering predictable schedules to promote children's sense of security and safety. Encourage toddlers' play with peers. Engaging in toddler-directed play and promoting children's self-confidence and independence. Reassuring parents and debriefing children's experiences with them. Engaging in assessment of toddlers' progress. 	Workshop #2 Promoting Language Development in Toddlers and Preschoolers	<ul style="list-style-type: none"> Using descriptive commenting. Understanding and importance of imitation, repetition, and nonverbal gestures for toddlers. Strategic modeling and prompting use of language. Being child-directed and responsive in play interactions to promote language. Using visual cues, songs, and menus to prompt social communication. Using interactive reading to promote reading readiness. Using pre-academic coaching with preschoolers. Setting up asking and telling practices to promote social communication between preschoolers.
Workshop #3 Social Coaching with Toddlers and Preschoolers	<ul style="list-style-type: none"> Importance of modeling social skills and one-on-one social coaching. Strategies for prompting and coaching preschool children's sharing, asking, helping and turn taking. Using circle time to promote social skills with both toddlers and preschoolers. Using puppets and pretend play to practice social interactions. Using positive teacher attention, praise and encouraging words for strengthening social skills. Using of intentional commenting to facilitate preschool children's peer relationships. Engaging in interactive reading to promote social skills and practices. Promoting empathy and friendships through dramatic pretend play. Value of using picture play scripts to promote joint play for children with developmental delays. Using teacher-directed social training for children with developmental delays Determining appropriate developmental social goals for individual children. 	Workshop #4 Emotion Coaching with Toddlers and Preschoolers	<ul style="list-style-type: none"> Building emotional literacy through interactive reading methods Using emotion coaching to model and prompt emotion language Encouraging positive expression of emotions Using pretend play and puppets to enhance beginning empathy learning Understanding how to respond to unpleasant feelings Helping children stay regulated by using their words Teaching children self-regulation and calm down skills (e.g., positive self talk, positive imagery, deep breathing) Using books and puppets to teach to teach calm down skills Leaning how to explain the Calm Down Thermometer to children Setting up calm down practices and finding teachable moments Sharing Tiny's secrets for self-regulation

Content and Objectives of the Incredible Years® Incredible Beginnings™ Program (Ages 1-5)

Content	Objectives	Content	Objectives
Workshop #5 The Proactive Teacher <ul style="list-style-type: none"> • Using transition warnings effectively • Assuring consistent and predictable routines • Using songs to facilitate transitions • Setting up developmentally appropriate schedules • Opening circle times with consistent routines • Predictable routines for ending the day • Teaching children classroom rules • Giving children awards and celebrating success • Visual prompts and teaching for following child care or classroom rules 		Workshop #6 Positive Behavior for Management of Toddlers and Preschoolers	<ul style="list-style-type: none"> • Reducing commands • Positive, clear limit setting • Importance of reminders, redirections, and distractions • Use of physical redirections • Effective and planned ignore strategies • Pairing ignore with distractions • Value of first-then commands • Using puppets to help children calm down • Using calm down strategies • Importance of positive attention and praise • Strategic use of incentives • Understanding use of differential attention • Teaching children Time Out to calm down • Learning how to teach and practice Time Out to calm down with children • Developing happy places imagery • Using the Calm Down Thermometer • Using teacher-directed play scripts for children with special needs

Appendix 3: Analysis of results

Factor analysis

Factor analysis was used to explore the items (questions) within the He Māpuna te Tamaiti self-assessment tool to reduce a large number of related variables to a more manageable number to make analysis easier, and to increase the reliability of the measure.⁴² All of the question items were grouped into one of three factors throughout the document; the statistical analysis to justify the groups into these three factors is provided below.

Correlations and exploratory factor analysis

The questions in the self-assessment tool involved 19 questions with 258 responses after removing missing data.

For all questions, the correlations were below 0.8 and exploratory and confirmatory factor analysis was applied. Furthermore, results of the Kaiser Meyer Olkin test for saturation (0.94) and Bartlett test (approximate Chi-squared (171) = 2685, $p < 0.000$) indicated factor analysis was appropriate for the instrument.

Principal components analysis identified 3 components with eigenvalues exceeding 1, explaining 61.4% of the variance (48%, 7.2% and 6.3% respectively). The screeplot suggested two components; both two and three component solutions were explored, and the three-component solution was identified as the most appropriate given the extent of items loading onto each of the two components. Oblimin rotations was used to help interpretation of the components, and three factors were extracted. There was a moderate correlation between these components (r values between 0.43 and 0.59), which is unsurprising given the known relationships between these practice areas. These three factors included – focus on tamariki, focus on the environment, and knowing and managing behaviour.

⁴²https://www.researchgate.net/publication/221184671_Randomizing_Survey_Question_Order_vs_Grouping_Questions_by_Construct_An_Empirical_Test_of_the_Impact_on_Apparent_Reliabilities_and_Links_to_Related_Constructs

Table 4: Three factors associated with He Māpuna te Tamaiti self-assessment items

He Māpuna te Tamaiti self-assessment items	Focus on environment	Focus on tamariki	Knowing and managing behaviour
	1.A. Establishing a positive climate	2.B. Helping children build resilience and a sense of self-worth	2.A. Supporting children to understand, express, and regulate their emotions
	1.B. Constructing values	2.C. Providing positive guidance during heightened emotions	5.A. Knowing about behaviour
	1.C. Developing and promoting expectations	3.A. Fostering peer friendships and interactions	5.B. Responding to problem behaviour
	1.D. Establishing consistent routines	3.B. Supporting children to care for and empathise with others	5.C. Supporting positive behaviour
	1.E. Creating a safe and inclusive space	3.C. Helping children support others in their learning	
		3.D. Helping children solve social problems during peer conflict	
		4.A. Supporting children to manage their learning	
		4.B. Providing rich and varied learning opportunities	
		4.C. Removing barriers to participation, engagement, and learning	
		4.D. Supporting transitions	

Confirmatory factor analysis was applied to test if these items could be grouped as these three constructs. Tests were performed to measure the goodness of fit. The results are presented in Table 5. The results of confirmatory factor analysis on three factors, as described above, are acceptable. The specific items relating to the three constructs are therefore fit to be grouped as defined above.

Table 5: Goodness of fit for 1 factor

Metric		Recommended values ⁴³	Results
Number of records			259
Number of items			19
Exploratory FA			
KMO		≥0.60	0.940
Bartlett test		<0.05	<0.000
Cronbach alpha		≥0.70	0.934
Cronbach alpha Factor 1 (focus on environment)		≥0.70	0.841
Cronbach alpha Factor 2 (managing behaviour)		≥0.70	0.836
Cronbach alpha Factor 3 (focus on children)		≥0.70	0.912
Confirmatory FA (3 Factors)			
χ^2/df		$0 \leq \chi^2/df \leq 2$ = good fit $2 \leq \chi^2/df \leq 3$ = acceptable fit	359.9/149 = 2.42
RMSEA		<0.08	0.074
CFI		≥0.8	0.920
TLI		≥0.8	0.908
SRMR		<0.08	0.055

⁴³ Schermelleh-Engel, Karin & Moosbrugger, Helfried & Müller, Hans. (2003). Evaluating the Fit of Structural Equation Models: Tests of Significance and Descriptive Goodness-of-Fit Measures. *Methods of Psychological Research Online*. 8. 23–74.

