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Formative assessment practices in early childhood settings: evidence and implementation in NSW

Research brief

Centre for Education Statistics and Evaluation

NSW Department of Education

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Introduction

Formative assessment (FA) is an educational practice that has broad applicability and support. There is much research suggesting that formative assessment can have powerful impacts on student learning (Black and Wiliam 1998; Briggs et al. 2012; Kingston & Nash 2011). However, most existing research has tended to focus on Kindergarten to Year 12 settings, despite the potential usefulness of formative assessment in early childhood education for creating strong educational foundations.

This paper focuses on formative assessment in early childhood education and care at centre-based services. We are particularly interested in how services are using formative assessment of children in their year before school, given the importance of their transition into schooling.

In this paper, we discuss several aspects of formative assessment in early childhood education (ECE). First, what formative assessment is and how it can be used in ECE settings; second, the evidence supporting formative assessment practices in these settings; and third, how several NSW ECE services have embedded formative assessment in their practices. Finally, we discuss the implications of the research for fostering greater application of evidence-based approaches in the NSW ECE sector.

What is formative assessment and how can it be used in ECE settings?

Formative assessment is a process used to monitor children's learning to inform teaching. In other words, it is assessment for learning (Wiliam & Leahy 2015). The Early Years Learning Framework (EYLF; Department of Education, Employment and Workplace Relations 2000) describes assessment for children's learning as:

> "the process of gathering and analysing information as evidence about what children know, can do and understand. It is part of an ongoing cycle that includes planning, documenting and evaluating children's learning."
> (p. 19)

Formative assessment tools in early childhood settings take various forms. These include narrative approaches, such as Learning Stories (Carr 2001), and more structured tools such as developmental checklists and inventories.

There are many potential benefits of the use of formative assessment in the ECE sector (outlined in EYLF, Department of Education Employment and Workplace Relations 2000). Formative assessment can be used by educators to identify skills, capabilities and strengths of learners. They can also inform educators on areas of need or competencies children are having difficulty achieving. Educators can then use this information for different purposes, such as designing appropriate learning tasks to boost areas of need, or adapting their teaching in ways that appeal to and extend children's strengths. Where formative assessment identifies areas of need, educators can consider appropriate intervention strategies. Formative assessment can also be used to document and communicate children's progress in their physical, cognitive, emotional, and social development to families. Educators can also use formative assessment to reflect on and evaluate the service programs and practices.

Pascoe and Brennan (2017) also described potential benefits of formative assessment in their review of the Australian ECE sector. They suggested that FA, used more widely, could better support educators in identifying children's needs and tailoring programs accordingly. The Australian Children's Education and Care Quality Authority reported that assessment and planning are the most challenging of all of the National Quality Standard (NQS) elements for services to achieve (Australian Children's Education and Care Quality Authority (ACECQA) 2019), with 86% of services assessed as 'Met' on these elements on NQS 2018.

What are the contextual issues that may affect the use of formative assessment tools in the NSW ECE sector?

Service characteristics

The NSW ECE sector consists of a range of service types. There were 5,534 services in NSW, as of 31 December 2019 (ACECQA 2020). Of these, 3,965 services offer early education and care delivered at a centre. This includes 3,197 long day care services and 768 preschool services. There are also 173 family day care services and 1,396 outside school hours care services (OSHC).

These differences in service characteristics can affect the:

- educational programs delivered in the service
- demographics and educational needs of the children
- time educators have off the floor to plan and program
- professional development opportunities accessible to educators
- educational priorities of the community or families in the area.

These factors all influence whether and how a formative assessment approach is employed by a service, how they train staff in that approach, the areas of learning they might prioritise, and how they communicate with their parents or carers.

Educator training, qualifications and retention

The department released a literature review on workforce issues in the NSW ECE sector (NSW Department of Education 2018). One major issue identified in the report is a shortage of highly qualified educators and teachers, and the variable quality of ECE educator training. The 2016 Early Childhood Education and Care National Workforce Census (Department of Education Skills and Employment 2017) indicates that 14.1% of early childhood educators in NSW long day cares have an ECEC-relevant bachelor's degree or higher. There are also a substantial proportion (39.4%) of the workforce with fewer than 4 years' experience in NSW long day cares, according to the same dataset.

These workforce issues impact the ability of ECE services to implement assessment. Staff need time and experience in a centre to learn students' capabilities and reflect on their own practice. Moreover, variable levels of educator training can lead to varying levels of exposure, experience and ability to implement and use assessments.

Changes to the National Quality Standard (NQS)

The NQS 2012 was revised to incorporate assessment into Quality Area 1, Educational Program and Practice in 2018. Standard 1.3, Assessment and Planning now includes three elements to capture assessment and its incorporation into planning and communication.

While this Standard 1.3 does not explicitly mention FA, its addition to the NQS is likely to prompt greater attention and emphasis on formative assessment in ECE services. Furthermore, Quality Area 1, Educational Program and Practice is one of four quality areas in which an 'Exceeding' rating counts towards achieving an overall rating of 'Exceeding' on the NQS.

Table 1

National Quality Standard 1.3 and its elements

Standard or element	Concept	Descriptor
Standard 1.3	**Assessment and planning**	**Educators and co-ordinators take a planned and reflective approach to implementing the program for each child.**
Element 1.3.1	Assessment and planning cycle	Each child's learning and development is assessed or evaluated as part of an ongoing cycle of observation, analysing learning, documentation, planning, implementation and reflection.
Element 1.3.2	Critical reflection	Critical reflection on children's learning and development, both as individuals and in groups, drives program planning and implementation.
Element 1.3.3	Information for families	Families are informed about the program and their child's progress.

Learning frameworks

The National Quality Framework (NQF) introduced quality standards in 2012 to improve early childhood education and care. Under NQF, services are required to base their educational program on an approved learning framework. A learning framework is a document which governs or guides services in delivering their programs. The EYLF is currently the only nationally approved learning framework for the 0-5 years' age group in ECE services in NSW. Services are likely to employ formative assessment tools that can be linked to the EYLF outcomes. This Framework sets out five learning outcomes for all young children's learning from birth to five years of age:

1. Children have a strong sense of identity.
2. Children are connected with and contribute to their world.
3. Children have a strong sense of wellbeing.
4. Children are confident and involved learners.
5. Children are effective communicators.

Cultural and linguistic diversity

Cultural and linguistic diversity can affect the ability of educators to accurately assess children using formative assessment tools. Lexical, syntactic and semantic variations between languages might cause particular assessment tasks to be less useful for these learners. Efforts to translate some standardised assessment instruments into languages other than English have not always been successful (Spinelli 2008).

Espinosa (2005) discusses a range of ways in which cultural and language differences can affect assessment in early learning. Among the possible challenges include assessing social competence when a learner does not speak English, or their overall proficiency in literacy when a child is more developed in a language other than English, or distinguishing between a lack of proficiency in English versus a language disorder for children for whom English is a second language.

Children with additional needs

Children with disability and children with additional learning needs require a more tailored approach to assessment. These learners may need specialised assessment tools in order to adequately map their learning and inform teacher practice. Some traditional approaches may leave some students with disability classified as low achievers without providing solutions or next steps. Proponents of narrative approaches suggest that these are better suited towards personalised assessment of these learners in authentic contexts or learning-in-action (Moore et al. 2008). However, projects such as Early Abilities Based Learning and Education Support (ABLES) demonstrate that traditional approaches are also being developed with these children in mind.

Despite these concerns, assessment may be even more critical to support students with additional needs, especially in early childhood settings. Early identification of these needs can lead to better early intervention and inclusion. An early meta-analysis of formative assessment focused on disability settings identified significant benefits for learners with disabilities (Fuchs & Fuchs 1986). Thus, finding ways to use formative assessment to both identify needs and design individualised approaches may have significant benefits for these learners.

How do we know if formative assessment is effective in ECE settings?

In 2019, the department commissioned a report to investigate evidence of valid and effective formative assessment tools in the ECE sector (Harrison et al 2019). This report distinguishes two broad types of evidence in relation to assessment for learning: psychometric evidence and evidence of effectiveness.

Psychometric evidence

Psychometric evidence relates to the measurement properties of a formative assessment tool, specifically reliability and validity. This type of evidence tells whether a tool accurately measures and describes children's learning. If the tool is accurate in measuring a child's learning, this means it can more effectively inform educator practice. A tool that has poor psychometric properties may fail to identify areas of support that children might need, or misclassify their abilities. Harrison et al. (2019) highlight several desirable psychometric properties for a formative assessment tool. These properties are shown in Table 2[1].

Table 2

Psychometric properties and their descriptions

Property	Description
Internal reliability	The score produced by a tool reflects the domains within it.
Inter-rater reliability	A tool produces similar results for a child when scored by different people over time.
Test-retest reliability	A tool produces similar results when a child is assessed by the same person multiple times.
Criterion validity	A tool correlates more strongly with other similar measures, and more weakly with anything measuring opposing or unrelated outcomes.
Structural validity	A tool measures the expected number of sub-domains (dimensions) of the construct domain – in other words, if the construct domain has two dimensions (sub-domains) analysis shows that the tool measures two dimensions. Additionally, the inter-relationships between sub-domains are consistent with those derived from domain theories and/or experts' expectations.
Developmental and subgroup validity	A tool works equally for all children within each age within its age group, and whether it works similarly for children with different characteristics, such as sex, ethnicity or other groupings.

1 Harrison et al. (2019) refer to criterion validity as construct validity.

Evidence of effectiveness

Effectiveness is evidence of the ability of a practice, intervention or program to affect its intended outcomes. Formative assessment is intended to inform individualised practice. Educators can tailor their approaches based on their knowledge of children's capabilities and interests. The resulting change in practice should lead to better learning outcomes for children. Thus, evidence of this occurring would provide stronger support for a particular formative assessment approach.

Evidence of effectiveness can generally be obtained through evaluation studies. These test the impact of an approach or intervention on a set of outcomes. However, not all evaluation studies provide the same strength of evidence. Generally, the strength of evidence from an evaluation study is judged using an evidence hierarchy.[2] This hierarchy prioritises randomised controlled trials over quasi-experimental studies, simple before-and-after comparisons and those which determine impact based on opinions. If there are more studies of particular formative assessment approaches which employ higher-quality techniques on the evidence hierarchy, we can consider that the tool is likely to be effective at improving teacher practice, or improving student outcomes.

Suitability for implementation

Psychometric evidence can be used to demonstrate the appropriateness of a formative assessment approach for measuring particular outcomes. Meanwhile, evidence of effectiveness supports the likelihood that they lead to better outcomes. However, neither ensure nor guarantee the suitability for implementation of any tools to a setting. Some aspects of suitability for implementation that services might want to consider in regard to any approach are its[3]:

- ease of use
- accessibility
- acceptability to teachers and families
- suitability for supporting communication and collaboration across key stakeholders.

Mattera and Choi (2019) also note that measures which can be easily administered multiple times a year to guide short-term instructional decisions may be preferred over longer, more detailed measurements involving resource-intensive data collection.

2 More information on the evidence hierarchy used in the department is available at https://www.gtil.cese.nsw.gov.au/how-we-use-evidence/what-is-it

3 Harrison et al. (2019) refer to this as 'social validity'.

Evidence for formative assessment in the ECE sector

Harrison et al (2019) reviewed a range of tools in their research. Of these, some were domain-specific (covering a learning area such as literacy) and others were general. The majority of tools have not been evaluated to examine whether they change student or teacher outcomes. Only three tools had strong psychometric evidence, while demonstrating overlap with three or more EYLF outcomes. These were the Child Observation Record, Teaching Strategies – GOLD, and the Desired Results Developmental Profile (DRDP). Of these only Teaching Strategies – GOLD has been evaluated for effectiveness using quasi-experimental methods, and only against teacher outcomes. There were no randomised controlled trials of any of the formative assessment tools in the review.

The Learning Stories approach has never been psychometrically validated, nor been tested for effectiveness other than through case study reports, despite its prevalence in the ECE sector. A list of the tools reviewed by Harrison et al. (2019), and a summary of each tool's linkages to the EYLF, psychometric evidence, and evidence of effectiveness is presented in Appendix 2.

Other sources of evidence and emerging evidence

Besides the review undertaken by Harrison et al. (2019), there are several other sources of evidence for formative assessment approaches in ECE settings. The Early Years Measures Database (Education Endowment Foundation 2017) rates a range of assessment tools' psychometric and implementation evidence. The World Bank has released a toolkit of measurement tools for early childhood outcomes (Fernald et al. 2017). While this toolkit focuses on low- and middle-income countries, it also includes information on whether tools have also been developed or used in the developed world. Mattera and Choi (2019) reviewed a range of formative assessment instruments for assessing language and pre-literacy skills of children from birth to three years as predictors of later reading ability. They concluded that selection of potential formative assessment methods requires balancing of the purpose of the measurement, logistical considerations and the strength of psychometric evidence.

The Early Years Toolbox (EYT) has been shown to have strong psychometric properties (Howard & Melhuish 2017). In England, a pilot evaluation found some evidence that EYT improved practice and changed practitioners' behaviour in assessment for learning (Dawson et al. 2020). They found only limited evidence that the intervention enhanced practitioners' understanding of child development and whether it could improve children's longer-term outcomes.

There are also Australian trials of formative assessment tools for the ECE sector. The Victorian Department of Education is currently validating the Early ABLES, a tool for children with disability in ECE settings in partnership with the University of Melbourne (Department of Premier and Cabinet (Victoria) 2015, Assessment Research Centre 2019).

How has formative assessment been implemented in NSW ECE services?

CESE undertook case studies in four ECE services that had implemented formative assessment. To select the case study sites, we undertook a purposive sampling process using the National Quality Assessment IT system assessment data as at 31 December 2019 (Australian Children's Education and Care Quality Authority 2020). Services were eligible for sampling if they were:

- centre-based (excluding out of school care services, and family day cares)
- offered services to children in the year before school
- obtained an overall rating of 'Exceeding NQS' and a rating of 'Exceeding NQS' on Quality Area 1, Educational Program and Program and 'Met' on Elements 1.3.1 and 1.3.2 on the NQS 2018.

Services were then selected to broadly align to the NSW distribution of centre-based services on six service characteristics: total approved places; years since approval; area socioeconomic index; remoteness; provider management type and service sub-type (long day care or preschool).

Using qualitative interviews, we document their philosophy that influences their formative assessment practices, justifications for those practices, and any perceived enablers and barriers. Thus, the case studies identify models of implementation that have been applied in different contexts. While the case study services are anonymous, we do present information on their context and characteristics, as described by the interviewees. Sample documentation that these services use for assessment and planning is presented in Appendix 3.

Service A – Preschool and long day care centre in metropolitan NSW

Service type

Private for profit long day care centre operating and licensed for 11 years.

Location and hours

North-west Sydney

Monday to Friday, 7:30am-6:00pm

Size

Licenced for 88 children. 39 attend the preschool program.

Child and family characteristics

Families are from medium to high socioeconomic backgrounds and varied cultural backgrounds. Some children speak English as a second language.

The service operates above the regulated staffing ratios. The service employs 28 staff with four educators in the preschool room. There are six educators who hold an early childhood teaching degree (ECT), including two at master's level. There are also five additional educators currently studying their early childhood degrees. Retention of staff is relatively high with all educators in permanent full time or part-time roles. The service described that their educational programs emphasise play-based learning and are guided by the EYLF. They described their focus as holistic, with an additional focus on social and emotional development and mindfulness. The service has strong partnerships with universities and non-government organisations across various research projects.

How formative assessment is implemented and used

The service has implemented assessment using short observations of learning, which they chose over longer learning stories following positive parent feedback. In implementing this approach, the service said they try to ensure that these assessments capture a holistic view of the child, and record rich learning experiences.

When making and recording observations, educators generally note the learning the child has done and propose extensions to that learning. Each educator is assigned to observe a certain number of children, with more experienced educators assigned to more children. They record short snapshots of what the child is doing, noting their abilities, strengths and interests. The snapshots are linked to the five EYLF learning outcomes, with educators recording a minimum of two observations per EYLF learning outcome in a bi-monthly cycle. They also involve children in the process, for example, a child may request to send a 'message' to their parents. In such a case the educator will take photographs of what the child is doing and quotes of what the child says about the activity.

These observations and snapshots are then stored in an online platform. The service worked with the app vendor to customise the platform to suit their needs for holistic assessment and reporting. The educators draw on all the observations in the app to make an overall judgment on each child's progress against each EYLF outcome. At the end of the report, educators write goals and intentions with families for developing that child in their next learning program.

The service sets aside educator time for assessment and programming, but also offers a degree of flexibility. Between 10am-12pm each day, staff and the educational leader reflect on their observations and plan the next week's program. Visual prompts on how to undertake documentation and assessment are displayed in the programming room. Staff may also engage in programming and documentation during child rest times. Educators leading particular programs may be given more time for assessment and programming. Overall, five to six hours a week is spent on programming for each room. This is a considerable amount, but it covers more than just observation and documentation.

New educators are trained in the observation approach as part of their induction training. The service uses a web platform to record and coordinate educator training.

New educators are provided with several materials on the assessment approach, including a flowchart of the programming cycle and where assessment fits in and guides on how to do observations. They also receive hands-on training from the educational leader. The educational leader reflected that:

> "I do find that if I get a new staff member or a new graduate, it does take a lot to get them to understand that things don't need to be very complex. It's simplicity in what the children are doing. Just look and use your discretion if you need to intervene. … what needs to improve is more training and looking at the value behind documentation. It's about how they take the observations and then understand how that leads to their learning, their next step. … It basically frames everything that we do. So it's not just something that we need to do in a rush because I haven't got an observation on that child today, I better go get one. It's like, no … let's just leave it for tomorrow and let's go out and look at what that child is doing and get something really meaningful."

Educators, educational leaders and nominated supervisors reflect, individually and as a group, on each child's assessments. Each educator keeps a critical reflection journal, which they use to reflect on their own practice. Educators add activities to the group program progressively based on their observations and reflections. In some instances, educators follow up with on observations of individual children by engaging in a group activity which extends that learning. This then gives them an opportunity to conduct follow-up observations on that child and any others who demonstrate their learning during that activity. This program is then reviewed in a team meeting at the end of the fortnight.

The service also uses the observations to inform parents of children's progress. Parents receive both the observation and bi-monthly reports on their child via the app. Parents then get to comment on whether the assessments of learning are consistent with their experience, or provide reasons for why there may be gaps between what children are doing at the service and at home. The service found this helped keep parents who may not have so much time for face-to-face interaction at the service involved in their child's learning. Staff include parents' feedback and suggestions as part of their critical reflections to plan next learning steps for the children.

Assessment also feeds into transition to school. The information is used to populate school readiness forms. It is also used to inform discussions with parents about school readiness, especially where the service may not think that a child is ready for school.

Enabling factors, barriers and desired support

The educational leader cited a key factor in the success of their approach to formative assessment is their customised training and mentoring of staff. Educators are mentored to do critical reflection on their own work. They are guided to adapt their teaching to meet children's needs. Their low staff turnover contributes to this ongoing learning.

One factor that has contributed to the service's positive experience with observations is their customised web app. It was trialled in the preschool room for two months in 2018. An enhanced system was rolled out in 2019 across all rooms. The customised web app has led to a reduced burden on staff, greater consistency in the content and quality of uploaded observations, and increased satisfaction for parents. Consultations with staff and parents were critical in gaining their acceptance of changes to the assessment and reporting processes.

Time constraints, and differing levels of competence for each staff member are the major challenges the service cited in implementing formative assessment. The service manages this by allocating a different number of children for observation to staff members based on their experience and competence. They find that educators who are more skilled can document more learning. The educational leader also mentors staff who need more support to manage their time effectively. They have also eased time pressures, by operating with an additional staff member, which helps provide staff with the time required to do their formative assessments.

Service B – Government preschool in rural NSW

Service type

Government preschool operating for 27 years, licensed for 10 years.

Location and hours

Remote north-western NSW

Monday to Thursday, 8:40am-2:40pm
Friday, 8:40am-12pm

Size

15-20 children enrolled in their preschool, mainly 4-5 years old in their year before school.

Child and family characteristics

Families are from relatively high levels of socio-economic disadvantage.

The staffing follows the regulated ratios. A degree-trained educational leader and two educators work in the preschool. The educational leader has been at the preschool for several years and previously held other roles in the school. The educators are a student support learning officer and an Aboriginal education officer, allocated from the school's staffing. They are Certificate III holders in early childhood education and/or special education.

The service has based their preschool philosophy on EYLF principles and practices. Rather than having specific focus areas of competency, they stated that they encourage each child to develop their unique identity through play-based learning. They also consider the environment as a 'third teacher'.

How formative assessment is implemented and used

The service undertakes holistic assessment through daily observations of children as part of the curriculum planning cycle. Jottings, and reflections on the children's learning, are made during outdoor and indoor activities. Where possible, educators use photographs to document their observations. During follow up activities, staff may take more photographs to show the child's growth in learning. Assessments are linked to EYLF learning outcomes and are recorded in an online platform.

The staff share their individual and group observations every afternoon, for up to two hours after the children leave. They are encouraged to spend time reflecting on children's capabilities, interests and choices to plan activities that will scaffold or extend the children's learning activities the next day. One interviewee reflected:

> "We discuss the children, during the day, we will do singular children's assessment of learning. We may do a small group or whole group. So in the afternoon, a time when we can discuss our extension of what we want to do. So it's a self-reflection of where we can go next … follow up extension, growth of learning. It's brainstorming ideas. And thinking of what we've got that we can put out to stimulate any more learning. … and we also do snapshots to parents. So we work on [app] so we will put out a daily program to the parents. … It's in the intentional teaching. I have a jotting book where the children's names are down the sides, there's a spot to write if there's an intentional teaching and a spot for spontaneous teaching. … Every child, we are teaching them from where they're at and extending on that."

Educators discuss their critical reflections and note children's achievements against EYLF learning outcomes at the end of each week. The educational leader then uses these reflections to plan the learning program in their web app for the following week. Although the service sets a scope and sequence for each term and the year, there is flexibility to adjust programming based on assessments from staff and health professionals such as speech therapists.

Training in assessment occurs at the start of each school year during induction for all school staff. Staff assigned to the preschool and any new school staff then receive more training on assessment procedures and use of the software. The educational leader uses on-the-job training to mentor educators on making and recording observations, critical reflection and planning activities. The staff discuss information from the department's formative assessment training for government preschools during team meetings.

Parents receive assessment information and are encouraged to share feedback with the service. The educators upload daily reflections on children's learning. The educational leader posts weekly updates on the group program and observations. Parents can provide feedback via the app. They may also engage in informal conversations with educators during drop off and pick up times or scheduled parent-teacher meetings. Educators use feedback from families in their critical reflections to plan next learning steps for children.

The service provides a short summary report to parents at the end of each term also in their web app. These reports are linked back to goals set in children's personal learning plans. They cover areas such as literacy, numeracy, attendance, social skills and behaviour management.

Assessment data is used in transition to school statements for families and feeder schools. The educational leader meets with Early Stage 1 teachers in feeder schools to discuss children's learning needs. Parents are encouraged to attend these meetings so the service, families and the school are working as a team to support children's transition. The service also sends an educator with children for their orientation sessions and informal visits as part of their assessment and programming for school readiness.

For children with additional needs, the service arranges for the school learning support team to share assessment profiles and support a smoother transition to their feeder schools. Assessments also provide evidence for reports to health professionals.

Enabling factors, barriers and desired support

The principal reflected on key factors that contributed to the success of their assessment approach. The dedicated preschool team formed warm relationships with children. Their assessments were based on genuine concern for the children's learning and development during one-on-one interactions and small group assessments. The educational leader is well-known amongst parents and the community. This provides a strong base to understand their children's needs and family dynamics. The Aboriginal Education Officers have ensured more culturally appropriate assessment and programming and closer connections with local community support.

Open and honest communication within the team has helped to instil and embed daily reflective practices. The educational leader was credited with providing very thorough induction and daily touch base, reflective conversations among the educators. Collaboration between the preschool team and the school learning support team resulted in more accurate assessment of children's learning support needs.

The educational leader reported that the software system has helped them to be more efficient with their assessments and saved administrative burden.

Staff turnover had been a challenge with changes to the educators in the preschool allocated from the central school staff. This prompted the educational leader to request that the educators be allocated consistently from the school to stabilise the preschool workforce. Thus, educators are more familiar with the children when assessing their learning.

Limited contact with parents whose children travel by bus was cited as a barrier when implementing assessment. It inhibited both daily informal interactions and rich conversations about their children's progress. The staff identified that having more time to engage with parents by phone would help overcome this challenge. They also commented that more training to use the full range of reporting tools in their web app was necessary. Finally, staff commented that additional opportunities to discuss assessment practices with staff from other services would improve the way they implemented formative assessment.

Service C – Community-based long day care in regional NSW

Service type

Private not for profit long day care centre operating for 30 years, licensed for 13 years.

Location and hours

Northern NSW

Monday to Friday, 7:45am-5:45pm

Size

84 children enrolled in centre – 45 attend the preschool program across the week.

25 to 26 children in the preschool program on an average day.

Child and family characteristics

Families are from moderate socio-economic disadvantaged backgrounds.

Families are from diverse cultural backgrounds.

Nearly one in five children are Aboriginal.

The staffing and class division follows the regulated ratios. A total of 20 staff members are employed in various capacities: full time permanent; part time permanent and casuals. Of these, four are degree-trained early childhood educators. The remainder are diploma or Certificate III holders and casual staff. Their workforce is relatively stable, with some approaching their second round of long service leave. They tend to keep a set roster of casuals on rotation. Their director has been at the centre for ten years, including six years as a teacher. Their educational leaders have been in the service for nine and 20 years.

The service developed their learning philosophy in collaboration with families and in a quality review process they participated in. Aside from their links to the EYLF, they described their philosophy as relatively broad and inclusive, acknowledging that all children learn in different ways. They considered taking an equal view of different domains and types of learning was the best approach for ensuring that all children's learning needs and styles were met.

How formative assessment is implemented and used

They have implemented a planning cycle, including assessment through observations, since their inception. However, it has evolved over time. In the past, they relied more on checklists, but have since moved towards a more holistic approach. Educators take individual and group observations. They then identify linkages to EYLF learning outcomes and milestones from the children's individual education plans. They also designate goals and future milestones to each observation.

The service provides an hour a week for programming for each educator, which includes working on observations. This does not include time for reflective group discussions. An interviewee described this process:

> "We do use the EYLF document with the age-appropriate milestones, we go through them generally at the beginning of the year and at the end of the year, so that we can then cater our programs to assist those children that might need a little bit help in one area or another, to make sure they are achieving those things before they sort of get to that next age bracket. And if they're not achieving them, then we can reflect on ways that we can help them and also reasoning behind why they might not be achieving at that particular point."

They plan follow-up observations for each learning outcome. These follow-ups are done by setting particular tasks for the broader group, not just the child the initial observation is about. Thus, educators can also collect observations on any other children who demonstrate these capabilities.

They also reported adapting their approach in response to emerging challenges and learning needs. They would conduct research into any specific needs they observed in their cohort of students. If educators were unfamiliar with the specific educational need or developmental delay, they would conduct further research on it. Based on this research, they would adapt their approach accordingly.

They described each educator having a different approach to writing observations. Despite these differences, they expressed confidence in the accuracy of assessment across the service. They attributed this to the educators' deep understanding of each learner's capabilities. They also mentioned that team members' ongoing dialogue helped support accurate assessment. Overall, they expressed strong convictions that their approach met learners' needs.

Interviewees commented that staff are trained in their assessment approach as part of their formal induction. The educational leader also instructs new staff to engage in observation before reviewing their work. They also described ongoing mentoring and discussion on each other's observations. Thus, they largely train new staff in their approach through practical experience. They did not report undergoing face-to-face training in assessment. However, they subscribe to training webinars and modules, some of which relate to assessment. In general, they also use the NQS self-paced learning modules, albeit to a lesser extent. They have also used the Department's Quest for Quality reflective questions in their team meetings. They also pose research questions for staff based on particular challenges they face in different rooms.

Observations are entered into a web app to communicate to parents. They do not send summative progress reports at set times in the year. They considered the frequent updates provided via the app sufficient for communicating learning progress.

They also use the data in relation to transitions to school. They described having a close relationship with the schools in their area. Local schools visit the service to hold discussions with preschool staff. These discussions focus on children's learning needs and any support they will need when entering school the next year. The preschool room leader tends to collate information about each child for these conversations. They described strategies to help children adjust to new settings as areas of focus in these conversations.

Enabling factors, barriers and desired support

They identified several key factors in the success of their approach. Their stable workforce enables educator continuity in each room. This promoted deep levels of understanding of their children. It also built mutual understanding with other educators. This, they said was instrumental towards getting accuracy in assessment.

They described communication as another factor which enabled their assessment approach. They communicate regularly with each other, in small and large teams. They also characterised their communication as being honest. This meant that they could raise difficult issues with each other. They also use staff meetings to hold reflective discussions on different topics. For example, one meeting was used to discuss early childhood theorists. Prompting questions were circulated beforehand. Their discussions centred on staff members' understanding and misconceptions of different philosophies.

The service also described the software they use as being instrumental in their practice. They spoke highly of its ability to record their observation data, and communicate with parents on a regular basis. They described that the use of the app helped them reduce administrative burden.

The limited time they have available off the floor was cited as a major challenge towards implementing assessment. Unlike other services, their educators do not have time 'off the floor' for assessment and work the same hours as the service hours. While they mitigated this by using technology such as Facebook to communicate outside of service hours, they identified having more funding to hold more reflective group discussions as an area of support they needed in order to improve further.

Service D – Preschool and long day care centre in metropolitan NSW

Service type

Private for profit preschool and long day care centre operating and licensed for 3 years.

Service provider has been operating a second long day care service for 10 years.

Location and hours

Both services in north-western Sydney

Monday to Friday, 7:30am-6:00pm

Size

110 children enrolled – 67 children attend the preschool program across the week: 35 children in the 3-4 years old room and 32 children in the 4-5 years old room.

Child and family characteristics

Families are from relatively high socioeconomic backgrounds.

Families are culturally diverse. All families are fluent in English with a few children speaking another language.

The service operates above regulated educator to child ratios. A non-teaching director, a full time educational leader and a full time nominated supervisor are employed in addition to staff rostered for each room. Six staff work in two preschool rooms with an assistant director, a director and the service provider. The majority of staff have a diploma and a few are Certificate III holders in early childhood education. Four staff are degree-trained early childhood teachers. Two staff are currently studying for their degree. Two staff are trainees. The workforce is stable with a small turnover in more junior staff. The director has been with the service for 10 years. The educational leader has been with the service for six years, including four years in the preschool rooms.

The service described the importance they place on having a strongly academic approach. Their learning philosophy is based on the EYLF with curriculum and assessment approaches developed in house. Preschool children engage in a pre-literacy program, and there is a strong focus on continuity of learning outcomes and building foundations for success in school. Developmental domains are also based on the department's literacy and numeracy learning progressions for early years. One interviewee reflected:

> "We spent a lot of time talking to the schools. … knowing what the expectation was when the children got to school, I'm very aware of not pushing the curriculum down on the children. But, from a teacher's point of view, we wanted to know what the transition looked like. … Now we use their (children's) interests to deliver our curriculum and the play-based style of our pedagogy was also very much driving our program. … We focus on comprehension, vocabulary, phonics and phonemic awareness so if we can get our children to school with those fundamental skills then learning is really easy or much easier. …. My senior preschool staff members will be at a disadvantage if they didn't know what was happening next for these children."

The interviewees expressed confidence that their current approach means the preschool teachers are much more attuned to what the children are learning and where they need to go next. They said the staff are sharing more meaningful documentation and formulating better quality learning programs than previously. They reported doing their own research for their in-house curriculum outcomes has been an advantage in embedding quality assessment practices. They cited the example of research for their STEM curriculum which led the service to identify key outcomes for children to learn about science and technology as well as teaching problem solving and resilience. The approach was developed collaboratively with staff in the two services over the past six years. One interviewee reflected on the key challenges in embedding their assessment approach:

> "I wanted our assessments to be meaningful to the next phase of these children's learning, not just merely a description of their day or their week or their year … the key challenge is convincing parents that the way that we're providing information to them is meaningful and valuable and very intentional and trying to resist the parents' expectations for photos. That would push us back into that meaningless documentation and make us photographers rather than educators … we needed a tool to start to reflect what the children were doing but also assessment for their future learning … the children's interest would be absolutely captured…. that's a really good motivation for the children. But we wanted to capture more about their thinking than just their interests … it provided a lot of clarity for our educators, rather than this flying blind and not by knowing where to take the children that had surpassed what they had expected of them."

How formative assessment is implemented and used

Formative assessment starts with individual and group observations, scaffolded by a range of learning frameworks. All staff are involved in observing and documenting children's learning with jottings. About two and half hours are rostered daily for observations and documentation. An extra educator is assigned on the floor during these times. They observe children in action and reflect on work samples in real-time. Educators have focus children. They can also comment on other focus children if they notice significant behaviours. They may also create mind maps with children discussing various topics to assess their learning. They use checklists that cover developmental domains. They annotate photo samples. Staff preferred making short handwritten notes rather than spending time entering data on computers. The service said they use tracking sheets to monitor and ensure all children are assessed across all learning outcomes in each reporting cycle.

Documentation of each assessment has three parts:

1. observation with evidence such as a photo, work sample, routine chart, parent input, jotting, specialist advice
2. reflection of the children's learning and development with analysis and reference to EYLF, the in house curriculum, theorists, journals or academic papers
3. follow up activities or goal for the children's learning or evaluation.

Educators write daily journals that are available to parents to see their child's learning. They consider input from discussions with parents in their children's assessments. Their jottings then provide enough information to share with parents in an informal way while they are waiting for summative assessments.

For children with additional needs, there is more emphasis on identifying the strengths of these children to design and teach their early intervention programs. The educators use more one-on-one interactions to gather assessments on children with additional needs. There is more modelling of behaviours to scaffold children's learning. Staff work with specialists such as paediatricians, speech therapists, psychologists, occupational therapists or schools. They ensure continuity with their settings so children can meet their goals in particular learning areas and can still be included in group based learning.

The educational leader provides an induction for new staff on the documentation and the cycle of planning. The service uses in-house training and mentoring rather than short courses. Room leaders review educators' work and do on-the-job training to link jottings to EYLF outcomes or outcomes in the in-house curriculum. Room leaders delegate reflections and programming to educators, but it is a shared responsibility. The educational leader, assistant director and director are available to assist with assessments on the floor and during programming. As part of the performance appraisal process, managers give feedback to staff about children's assessments, programming and reporting.

Educators and room leaders use formative assessments, reflections and children's interests when developing the group programs for the next week. These plans are very flexible. The service schedules weekly programming on Thursdays so the educational leader can monitor and provide quality assurance before sending the programs with reflections to families at the end of each week.

Formative assessments are used to inform summative assessment reports for parents three times a year. These short reports provide holistic and comprehensive information in six developmental areas: social/emotional; language; cognitive; gross motor skills; fine motor skills and co-curricula. The reports cover the child's goals and what the child has achieved in their learning over a period of three months. While all educators are required to document formative assessments, staff can choose whether to also do the summative evidence-based reporting. The service offers parent-teacher meetings when reports are sent out or on request to discuss children's progress.

For older preschool children, formative assessments are used to prepare the department's transition to school statements for parents and feeder schools. The service described transition initiatives as intentional teaching to assess children's readiness for school. Staff accompany the children to orientation sessions and extra literacy groups in order to see their progress in action not just predicting what they might be like in the school setting.

Enabling factors, barriers and desired support

Coordinators identified the key factors contributing to the success of their assessment approach are the strong relationships staff form while interacting with the children and develop a deeper understanding of what the children are learning. The educators are spending quality time on the floor with the children. Staff have flexibility to gather meaningful learning and use their professional judgement, setting goals and helping the children to achieve them. Staff have autonomy with how they choose to gather enough information on the children to reflect critically and then formulate their summative assessments.

The service chose an approach to assess how children's capabilities link to their future learning. There is a strong continuity between pre-school and school outcomes in their approach. They emphasised this has resulted in an assessment method that is meaningful, while significantly reducing administrative burden on educators. They used to gather observations for daily and monthly reports that were not well- structured nor intentional in their communication to parents. Although staff received one to two hours a week off the floor in compliance with industrial relations requirements, they were still spending excessive time after work, compiling their observation notes and portfolios. Centre managers described savings of up to 40 hours of administrative time in a week.

Teamwork has improved because they have extra staff allocated to complete observations in real time, rather than in hindsight. Extra staff also meant assistance was in place each day, reducing the need to backfill with casuals for staff on leave. This has contributed to better continuity of staff and workflow. It has strengthened relationships between educators and built trust with more open communication and sharing of ideas. The service leaders expressed confidence that the children's learning outcomes are assessed more accurately and consistently.

The service reported that they were mindful of relying too much on tools like checklists for child development.

Ensuring an overall balance in their reporting to parents is a major challenge that the service found in implementing their assessment approach. While they have a strong focus on literacy and numeracy for school readiness, they said they need to ensure that educators also observe and record against other learning areas such as fine motor and gross motor skills and social and emotional wellbeing.

The service expressed a preference for more support materials on the EYLF to identify age-appropriate, measurable outcomes for children across all learning areas.

Discussion

Formative assessment is seen to be a useful and important practice in early childhood settings. Among the theorised benefits of formative assessment include building strong foundations for future learning and enabling the early identification of developmental delays. The introduction of assessment and reflection into the NQS (2018) reflects an increased focus on formative assessment in this sector.

This report summarises the findings of a literature review by Harrison et al. (2019) examining evidence for effective formative assessment in early childhood settings. It also reports on four case studies of ECE services in NSW who employ formative assessment approaches.

Harrison et al. (2019) collated psychometric and effectiveness evidence for a range of formative assessment tools. They identified a range of domain-specific and general formative assessment tools supported by psychometric evidence. However, only three tools also had evidence of effectiveness against educator practice outcomes. None of the tools reviewed had been evaluated against teacher practice or student outcomes using rigorous methods. We note that there are other sources of existing and emerging evidence, in addition to this review which are worth consideration in identifying effective formative assessment.

We conducted case studies of formative assessment of four NSW ECE services to identify models of implementation. The case studies should not be taken as evidence of prevalence of practice. While services were chosen to ensure diversity in their settings, case study evidence is not representative of practice in the sector. For example, the case studies above should not be used to infer that narrative approaches dominate; survey evidence would be better suited for this purpose. Instead, the data demonstrates ways in which service context influences these services' use and implementation of formative assessment.

The services we studied chose formative assessment approaches with their philosophy and families' preferences in mind. A more academically-focused service used checklists along with observations in assessing children. They found this a more efficient way of measuring the educational outcomes that they prioritised. Another service used shorter observations over learning stories in response to parent feedback.

Services considered their operational conditions in incorporating formative assessment in day-to-day practice. Two services, both for-profit long day cares, operated above the mandated staffing ratios. They had a dedicated educator and daily time for assessment and reflection. Another service did not have dedicated daily time for assessment. They fit in assessment and reflection when they could during the day, and online after service hours.

They also had different preferences to how to distribute the responsibility for assessment. One service allocated focus children for each educator to assess, allocating more children to more experienced educators. In another service we interviewed, the responsibility for collecting observation data was shared between all educators.

Services relied on their educational leaders, to train others in their formative assessment approach. This is unsurprising given each service had tailored their approach to their context.

Services used information from assessments to formulate their programs, communicate with parents, and to inform transition to school. Commercial apps were used extensively for these purposes, and one service worked with an app provider to customise their app for their reporting needs.

In summary, there are a host of formative assessment tools in ECE settings supported by varying degrees of psychometric evidence. However, the lack of quality evidence for the effectiveness of these tools does not suggest that there is a tool that is ready to be applied more widely at this stage. There are emerging research projects aiming to gather such evidence, although it is impossible at this stage to know whether these will indicate effectiveness of the tested approaches. More research into the effectiveness of different approaches is needed.

The implementation of formative assessment in the NSW ECE services we studied was highly context-specific. Thus, evidence-based approaches should consider linking to the goals of ECE services, and be adaptable or feasible to the variety of contexts that ECE services operate in. Guidance or programs for ECE services which link evidence-based tools to the EYLF, offer strategies for implementing such tools in different contexts, and demonstrate how these can be used for the various reporting needs of services could help bridge the gap between evidence and practice in this area.

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Appendix 1:
Approach to case studies

Four case studies were undertaken to describe how early childhood education centres are implementing and embedding formative assessment. We undertook a purposive sampling process using NQS assessment data (Australian Children's Education and Care Quality Authority 2020).

We identified 202 potential services who were assessed on the NQS (2018) as at 24 March 2020.

Services were selected if they met the following criteria:

- centre-based (excluding out of school care services, and family day cares)
- offered services to children in the year before school
- obtained an overall rating of 'Exceeding NQS' and a rating of 'Exceeding NQS' on Quality Area 1, Educational Program and Program and 'Met' on Elements 1.3.1 and 1.3.2 on the NQS 2018.

Services were then selected to broadly align to the NSW distribution of centre-based services on six service characteristics. This is presented in the table below.

Table A1

Sampling of services for case studies

(Source: ACECQA NQA ITS Q4 2019, 24 March 2020)

Characteristic	NSW N	NSW %	Sample N
Total approved places			
20 or fewer	260	7%	
21-40	1641	41%	2
41-70	1264	32%	1
71-100	598	15%	1
101-200	197	5%	
200 and above	5	0%	
Years since approval			
5 years or less	515	14%	1
5-10 years	451	12%	
More than 10 years	2856	75%	3
Area socioeconomic index (SEIFA) quintile[4]			
Lowest – 1st quintile	957	25%	1
2nd quintile	797	21%	1
3rd quintile	615	16%	
4th quintile	632	17%	1
Highest – 5th quintile	793	21%	1

4 SEIFA quintiles defined by the Australian Bureau of Statistics (2016a).

Characteristic	NSW N	NSW %	Sample N
Remoteness[5]			
Inner regional Australia	688	17%	1
Major cities of Australia	3015	77%	2
Outer regional Australia	205	5%	
Remote Australia	25	1%	1
Very remote Australia	10	0%	
Provider management type			
Catholic schools	21	1%	
Independent schools	54	1%	
Private for profit	2398	61%	2
Private not for profit community managed	863	22%	1
Private not for profit other organisations	315	8%	
State/Territory and local government managed	215	5%	
State/Territory government schools	99	3%	1
Service sub-type (ordered counting method)			
Long day care (LDC)	3197	81%	3
Preschool (PSK)	768	19%	1
Total number of services	**3965**		**4**

We used assessment and rating reports compiled by authorised officers in the early childhood education regulatory team in the department to verify that these services used formative assessment in their setting. CESE contacted services inviting them to participate in the research.

CESE planned to conduct site visits with each service. However, due to COVID-19 social distancing requirements, interviews were conducted by phone with nine representatives in four ECE services who were implementing FA. One provider operated two services; the findings for both services were included in the same case study. The second service had similar characteristics to the first service.

The representatives included: service providers; centre director/principals; nominated supervisors; educational leaders and preschool room leaders. Interviews were conducted by phone for 40 minutes to an hour as a one-on-one or small group. With participants' consent, audio recording of the interviews were used to assist with analysis. At the end of the interviews, participants were asked if they were willing to provide de-identified samples or templates of their formative assessment tools. These were used to supplement interview data in developing the case studies.

5 Remoteness areas defined by the Australian Statistical Geographic Standard (Australian Bureau of Statistics 2016).

Appendix 2:
Evidence summary of tools – literature review

Harrison et al (2019) reviewed a range of tools as part of their report. In this Appendix we provide a summary of the evidence they obtained on each of the tools. We have only included tools with at least one link to the EYLF outcomes. In relation to psychometric and effectiveness evidence, a green tick (✅) means a study has examined that aspect of the tool and reported positive findings. It is also used to show evidence of outcomes, where reported. If a cell is marked with a red cross (❌), a study has examined that aspect of the tool and uncovered negative findings. If no studies or evidence on outcomes were found, this is marked with a grey dash (⛔). We also omit case study evidence. As noted above, case studies do not provide robust evidence of improved outcomes.

Table A2

Summary of formative assessment tools reviewed by Harrison et al. (2019)

Tool and details	Links to EYLF outcomes	Psychometric evidence	Evidence of effectiveness
Assessment, Evaluation, and Programming System (AEPS-2 and -3) – 0-6 years https://brookespublishing.com/product/aeps/	1, 3, 4 and 5	**Positive** findings for: ✅ internal reliability ✅ inter-rater reliability ✅ criterion validity ✅ structural validity **Negative** findings for: ❌ developmental and subgroup validity **No studies** for: ⛔ test-retest reliability	No evidence reports on teacher outcomes or student outcomes.
The Birthday Party – 3-5 years Ginsburg & Pappas 2016	4	**Positive** findings for: ✅ internal reliability ✅ inter-rater reliability ✅ criterion validity ✅ structural validity ✅ developmental and subgroup validity **No studies** for: ⛔ test-retest reliability	Evidence reports on: ✅ teacher outcomes
CIRCLE (former CPALLS+STEM) – 3-5 years https://cliengage.org/public/tools/assessment/circle-progress-monitoring/	2, 3, 4 and 5	**Positive** findings for: ✅ internal reliability ✅ inter-rater reliability ✅ test-retest reliability ✅ criterion validity ✅ structural validity ✅ developmental and subgroup validity	Evidence reports on: ✅ teacher outcomes ✅ student outcomes

Tool and details	Links to EYLF outcomes	Psychometric evidence	Evidence of effectiveness
Checklist of Independent Learning Development 3-5 (CHILD 3-5) – 3-5 years Whitebread et al. 2009	3, 4 and 5	**Positive** findings for: ✓ internal reliability ✓ inter-rater reliability **No studies** for: − test-retest reliability − criterion validity − structural validity − developmental and subgroup validity	No evidence reports on teacher outcomes or student outcomes.
Conversation Compass Communication Screener – Revised (CCCS-R) – 3-5 years Curenton et al. 2019	5	**Positive** findings for: ✓ inter-rater reliability ✓ criterion validity ✓ structural validity **No studies** for: − internal reliability − test-retest reliability − developmental and subgroup validity	No evidence reports on teacher outcomes or student outcomes.
Child Observation Record (COR) – 0-6 years https://highscope.org/cor-advantage/	1, 2, 3, 4 and 5	**Positive** findings for: ✓ internal reliability ✓ inter-rater reliability ✓ criterion validity ✓ structural validity **No studies** for: − test-retest reliability − developmental and subgroup validity	No evidence reports on teacher outcomes or student outcomes.
Desired Results Developmental Profile (DRDP) – 3-5 years and Kindergarten https://www.desiredresults.us/drdp-forms	1, 2, 3, 4 and 5	**Positive** findings for: ✓ internal reliability ✓ inter-rater reliability ✓ criterion validity ✓ structural validity ✓ developmental and subgroup validity **No studies** for: − test-retest reliability	No evidence reports on teacher outcomes or student outcomes.

Tool and details	Links to EYLF outcomes	Psychometric evidence	Evidence of effectiveness
Early Learning Scale – pre-Kindergarten https://www.myelsonline.com/www/index.php Riley-Ayers et al 2010	3, 4 and 5	**Positive** findings for: ✓ internal reliability ✓ inter-rater reliability ✓ criterion validity **No studies** for: – test-retest reliability – structural validity – developmental and subgroup validity	No evidence reports on teacher outcomes or student outcomes.
Early Literacy Individual Growth and Development Indicators (EL-IGDIs) – 3-6 years https://www.myigdis.com/preschool-assessments/early-literacy-assessments/#1460350206401-de3ecdce-928f	5	**Positive** findings for: ✓ test-retest reliability ✓ criterion validity **Negative** findings for: ✗ developmental and subgroup validity **No studies** for: – internal reliability – inter-rater reliability – structural validity	Evidence reports on: ✓ student outcomes
Early Numeracy - IDGIs (also called Preschool Numeracy Indicators) – 3-6 years https://www.myigdis.com/preschool-assessments/	4	**Positive** findings for: ✓ test-retest reliability **Negative** findings for: ✗ developmental and subgroup validity **No studies** for: – internal reliability – inter-rater reliability – criterion validity – structural validity	No evidence reports on teacher outcomes or student outcomes.
Early Numeracy Scales – 3-6 years Purpura & Lonigan 2015	4	**Positive** findings for: ✓ test-retest reliability ✓ criterion validity ✓ developmental and subgroup validity **No studies** for: – internal reliability – inter-rater reliability – structural validity	No evidence reports on teacher outcomes or student outcomes.

Tool and details	Links to EYLF outcomes	Psychometric evidence	Evidence of effectiveness
Individualized Classroom Assessment Scoring System (inCLASS) – 3-5 years http://www.inclassobservation.com	3, 4 and 5	**Positive** findings for: ✓ inter-rater reliability ✓ criterion validity ✓ structural validity ✓ developmental and subgroup validity **No studies** for: − internal reliability − test-retest reliability	No evidence reports on teacher outcomes or student outcomes.
Learning Stories – ages not specified Originally developed by Carr (1998, 2001)	1, 2, 3, 4 and 5	**No studies** for: − internal reliability − inter-rater reliability − test-retest reliability − criterion validity − structural validity − developmental and subgroup validity	No evidence reports on teacher outcomes or student outcomes.
Letter-Sound Short Forms – 3-6 years Piasta et al. 2016	5	**Positive** findings for: ✓ structural validity **No studies** for: − internal reliability − inter-rater reliability − test-retest reliability − criterion validity − developmental and subgroup validity	No evidence reports on teacher outcomes or student outcomes.
Preschool Early Literacy Indicators (PELI) – 3-5 years https://acadiencelearning.org/peli.html	5	**Positive** findings for: ✓ inter-rater reliability ✓ criterion validity ✓ developmental and subgroup validity **No studies** for: − internal reliability − test-retest reliability − structural validity	No evidence reports on teacher outcomes or student outcomes.

Tool and details	Links to EYLF outcomes	Psychometric evidence	Evidence of effectiveness
Preschool Situational Self-Regulation Toolkit (PRSIST) – 3-5 years Howard et al. 2019	2 and 4	**Positive** findings for: ✓ inter-rater reliability ✓ criterion validity ✓ structural validity ✓ developmental and subgroup validity **No studies** for: − internal reliability − test-retest reliability	No evidence reports on teacher outcomes or student outcomes.
Profile of Preschool Learning & Developmental Readiness (ProLADR) – 3-5 years https://www.myigdis.com/preschool-assessments/social-emotional-assessments/#1502390617906-f3476c97-06c0	3, 4 and 5	**No studies** for: − internal reliability − inter-rater reliability − test-retest reliability − criterion validity − structural validity − developmental and subgroup validity	No evidence reports on teacher outcomes or student outcomes.
Teaching Strategies Gold (TS GOLD) – 0-5 years https://teachingstrategies.com/solutions/assess/gold/	3, 4 and 5	**Positive** findings for: ✓ internal reliability ✓ inter-rater reliability ✓ criterion validity ✓ structural validity ✓ developmental and subgroup validity **No studies** for: − test-retest reliability	Evidence reports on: ✓ teacher outcomes
Write Start! Writing Assessment – 2-5 years Rowe & Wilson 2015	5	**Positive** findings for: ✓ inter-rater reliability ✓ developmental and subgroup validity **No studies** for: − internal reliability − test-retest reliability − criterion validity − structural validity	No evidence reports on teacher outcomes or student outcomes.

Note:

1. All references are listed in Harrison et al 2019. They refer to criterion validity as construct validity.
2. EYLF outcomes are:
    1. Children have a strong sense of identity.
    2. Children are connected with and contribute to their world.
    3. Children have a strong sense of wellbeing.
    4. Children are confident and involved learners.
    5. Children are effective communicators.

Appendix 3:
Sample assessment and planning cycles and tools used by services

As part of the case studies, services provided examples of their documentation to show their approaches to the assessment and planning cycle and assessment tools that had been developed in-house. Some services produced their own templates to complement their online packages. These have been de-identified, using X for names and dates, and a black box (▬) for redaction. The samples have been reproduced below with the permission of the services.

Figure 3.1

Redacted sample planning document to show how formative assessments contribute to learning programs and summative assessments

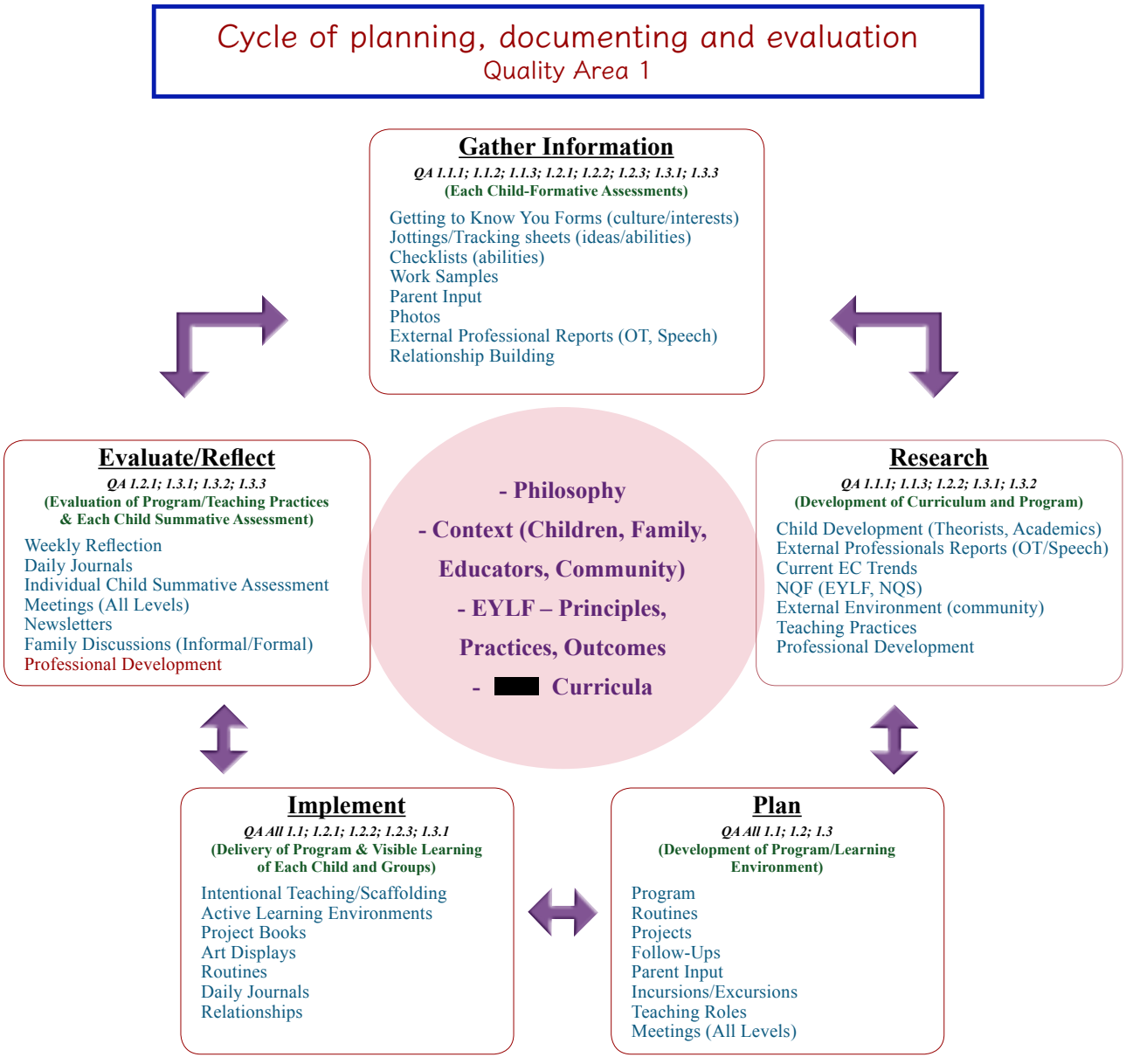

Figure 3.2

Sample formative assessment record linking observations to learning frameworks and follow up activities to extend the child's learning

Formative Assessment

Child: X

Observation Type of evidence – photo, work sample, routine chart, parent input, jotting	**Reflection of Children's learning and development** Reference – EYLF, Curriculum folder, journals, academic papers etc.	**Follow up / Goal / Evaluation**
X Ob by: X **Literacy and Social emotional wellbeing** Today X and X were looking through a book that X had brought in from home. I was reading some stories to children in book corner when X approached me and said, "X would you please read X's book to us?" I read the book to X and X and when I was finished they said thank you before taking the book and to the mat where X pretended to read the book to X. When she was finished she handed the book to X and said, "It's your turn to read." X pretended to read the book to X. After they both had a turn of reading the book they placed it on the floor and flicked through the book chatting about the story together.	During this experience X demonstrated his ability to engage in shared conversations with his peers and educators. He felt confident in approaching his educator to ask for a story to be read. X and X showed their ability to share as they engaged in dramatic play taking turns to pretend to read a book to one another. Demonstrating their ability to transfer knowledge from one context to another – in this case through pretend play X was mirroring his teacher or parents action of reading. (DEEWR, 2009, Outcome 1, p.21 Children initiate interactions (play) and conversations with educators and peers) (DEEWR, 2009, Outcome 3, p.31 Children become strong in their social and emotional wellbeing)	Goal: For X to continue to build his sense of belonging within his preschool environment. Build relationships with peers as well as his confidence and resilience in social situations.

Figure 3.3

Sample formative assessment record for a small group linking observations to learning frameworks and follow up activities to extend their learning

Formative Assessment

Observation
Type of evidence – photo, work sample, routine chart, parent input, jotting

Date: X **Ob by**: X

Children: X

Learning area: [redacted] – Literacy and Numeracy

During X today the children helped to write the day, date, month and year on the board.

X: "Today is Wednesday."
X: "What letter and sound does Wednesday begin with?"
X and X: "wer" letter sound.
X, X and X: said the letter name /W/.

A discussion was had about the different ways you can say the year 2020. X said, "You know year two thousand and twenty can be said twenty twenty (20:20).

X arrived just as we were about to begin X and shared a photo of her family with her peers. I asked X who the people were in the photo and she said, "It's my family! See it is me, mummy, daddy, and my baby sister X."

X also share with the children that the photo was taken when they went to the Zoo. This sparked a discussion about who had been to the zoo and what animals they had seen at the zoo. We made a list of animals seen at the zoo.

Peacock, Leopard, Lion, Cheetah, Bunny, Tiger, Giraffe, Horse, Turtle,
Seal, Magpie, Goat, Gazelle, Spider Monkey, Orangutan, Black Panther, Zebra, Shark,
Crocodile, Snake, Birds, Elephant, Sheep, Cow.

As a group the children counted using one to one correspondence (X pointed to each word) to the number 24.

X was able to identify the 2 numbers that make the number 24 and wrote them on the board.

Reflection of Children's learning and development
Reference – EYLF, Curriculum folder, journals, academic papers etc.

- During this experience the children demonstrated they are confident and involved learners as evidenced by their growing understanding of a number of literacy and numeracy concepts. ***EYLF Outcome 4 and 5***
- The children were able to identify the letter names and sound for /W/ (first phoneme of spoken word "Wednesday"). **National Literacy Progression – Phonological Awareness PhA2.**
- The children also demonstrated their growing ability to engage in a shared conversation where they took turns to listen and turns to talk. **National Literacy Progression – Interacting InT1**
- The children created a list of animals that they could remember from their visits to the zoo and as a group they counted the number of words on the board using one-to-one correspondence to 24. [redacted] **Numeracy Curriculum**.
- X demonstrated her comfort, feeling safe, secure and supported enough to share her experience with her educators and peers. ***EYLF Outcome 1 and National Literacy Progression – Speaking SpK1***

Follow up / Goal / Evaluation

Continue to engage children in fun play based literacy experiences that build on the literacy foundational skills such as: phonemic awareness, speaking and listening and interacting.

Incorporate the children's interest in animals into play experiences to build further literacy and numeracy skills eg: "The Ultimate Animal Counting Book", number rocks and counters, playdough cards, include animals in dramatic play and construction areas (Literacy - dramatic/narrative, numeracy – sorting and categorising)

Figure 3.4

Sample daily reflection sheet with observations, teaching and reflection linked to Early Years Learning Framework

Educators Daily Reflection – Day:- **Date:-** .

LA	Child's name	att	Intentional teaching	Spontaneous/ extension	Day's Events	EYLF
				Outside:-	Overall intentional teaching	THIS WEEK'S PROGRAM WILL FOCUS ON THE FOLLOWING EYLF OUTCOME/S L/O1 Children have a strong sense of identity 1.1 Children feel safe, secure, and supported 1.2 Children develop their emerging autonomy, inter-dependence, resilience and sense of agency 1.3 Children develop knowledgeable and confident self identities 1.4 Children learn to interact in relation to others with care, empathy and respect L/O2 Children are connected with and contribute to their world 2.1 Children develop a sense of belonging to groups and communities and an understanding of the reciprocal rights and responsibilities necessary for active community participation 2.2 Children respond to diversity with respect 2.3 Children become aware of fairness 2.4 Children become socially responsible and show respect for the environment L/O3. Children have a strong sense of wellbeing 3.1 Children become strong in their social and emotional wellbeing 3.2 Children take increasing responsibility for their own health and physical wellbeing L/O4. Children are confident and involved learners 4.1 Children develop dispositions for learning such as curiosity, cooperation, confidence, creativity, commitment, enthusiasm, persistence, imagination and reflexivity 4.2 Children develop a range of skills and processes such as problem solving, inquiry, experimentation, hypothesising, researching and investigating 4.3 Children transfer and adapt what they have learned from one context to another 4.4 Children resource their own learning through connecting with people, place, technologies and natural and processed materials L/O5. Children are effective communicators 5.1 Children interact verbally and non-verbally with others for a range of purposes 5.2 Children engage with a range of texts and gain meaning from these texts 5.3 Children express ideas and make meaning using a range of media 5.4 Children begin to understand how symbols and pattern systems work 5.5 Children use information and communication technologies to access information, investigate ideas and represent their thinking
					Stories	
				Inside:-		
					Songs	
					Art/cooking	
				Quiet /rest time:		Observation/reflection
					Where to go next……..	

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