Assessment for Learning with Young Gifted Children

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Abstract

This paper argues that assessment practices used by teachers in schools and early childhood services, including narrative approaches, provide accessible, authentic, low-cost, and easily administered assessment. Assessment for learning embeds assessment within teaching and learning and supports teachers to work in collaboration with parents and children to deepen understanding of children's strengths and interests, and to support relationships. Further, assessment for learning provides an approach to ensure that multi-categorical definitions of giftedness can be applied across the curriculum. The approach is in contrast to normative judgments from isolated testing. Findings from two studies of young New Zealand children are provided to illustrate examples of varied teacher-led assessment approaches: curriculum assessment tools; rating scales and checklists; observation; and narrative assessment. The discussion considers ways in which these assessments may support learning in formative ways, as well as limitations of each approach. The purpose of the paper is to affirm to teachers that they do have assessment methods available, and the expertise to use them to support young gifted learners.

Background

A Definition of Giftedness and Talent

Gagné (2009) notes that domains of giftedness include: intellectual; creative; social; and perceptual (mental domains); and muscular and motor control (physical domains). The range of specific examples of giftedness includes memory, inventiveness, leadership, proprioception, endurance and agility. Such natural abilities particularly develop in the early years (Gagné, 2009). Talent is the result of systematic learning activity, usually but not necessarily of gifts. Fields of talent are performance oriented, including: academic; technical; science and technology; arts; social service; administration/sales; business operations; games; sports and athletics.

Important elements of Gagné’s model of giftedness and talent include differentiating between giftedness and talent, and the multi-categorical approach. Talent tends to become evident in older children, and the traits within the domain of giftedness are usually more pertinent for younger children. However, while ”most talents are easy to assess” (Gagné, 2009, no page given), assessment of giftedness is more problematic. Traditional intelligence quotient (IQ) tests have been critiqued for ethnic and socio-economic bias (Gould, 1996), as have other norm-referenced tests, and do not claim to capture the full range of a multi-categorical definition of giftedness.

Gagné’s model affirms the important role that teachers have in supporting young gifted learners.
Without effective assessment and responsive teaching, gifts may not translate to later talent. Further, effective assessment can identify and ensure support for students that are not innately gifted but who have strong volition to become talented.

Assessment

Traditional theories of assessment have been based on a psychometric conception of intelligence. Norm-referenced assessment defines and measures a construct of what is 'normal', and positions students who are exceptional as 'abnormal' and outsiders. With any assessment, the purpose needs to be carefully considered: tools for labeling and gatekeeping are likely to differ from tools for formative assessment (teaching and learning) purposes. Although in New Zealand the use of psychometric tests is not routine, the bell-curve discourse remains as we globally consider stanines, percentiles, achievement standards and national standards. With particular reference to gifted education, some professionals have felt that norm-referenced tests are necessary to 'prove' exceptionality. However, as such tests are not usually provided through schools or special education services, costs fall on parents and identification becomes the privilege of those who can afford to be formally tested. Perhaps more significantly however, results of a psychometric test may do little more than identify exceptionality; such tests do not claim to connect to the daily work of teachers in schools or early childhood education settings.

To support learning, assessment needs to do more than label; it needs to support learning (Bell & Cowie, 1999; Hattie, 2005; Stoll, Fink & Earl, 2003; Timperley & Parr, 2004). Teachers need assessment information that is more holistic, interpretive and reflective than numeric data, grades and marks. Assessment that is personalised, contextualised and related to the learner's dispositions and key competencies is more likely to connect to teaching and learning than an isolated score, ranking, stanine or percentile. Formative assessment positions assessment for and as learning, rather than of learning (Hattie, 2005).

Assessment exemplars published in New Zealand for early childhood education (Ministry of Education, 2004/2007/2009) use a narrative assessment approach (Carr, 2001). The approach supports teachers to notice, recognise and respond to learning. These resources invite teachers and other adults who work with children to consider competence according to three aspects:

- "Personal goals, interests, and working theories;
- Learning strategies and dispositions;
- Social roles and culturally valued literacies" (Ministry of Education, 2004, booklet 6, p. 3)

Defining competence in this way means that assessment needs to be able to capture rich and authentic examples of interests, activity and interaction in social and cultural contexts. Narrative assessment is able to document rich and meaningful evidence that could never be captured within formal and standardised assessment tools. It is also useful to note that a broad interpretation of competence can avoid pre-determination of expectations which can limit learning and achievement.

Research Studies

Findings from two research studies undertaken by the author have informed this paper. The first study is of 4-year old precocious readers (Margrain, 2005), and the second, current, study is gathering learning stories of young gifted children. In all cases, informed consent was obtained and pseudonyms are used to protect the confidentiality of participants.

Study A: Precocious Readers

A PhD study of 11 4-year-old precocious readers (Margrain, 2005) aimed to support advocacy for young gifted children and families. Jackson, Donaldson, and Cleland (1988) define precocious readers as children who “have made substantial progress in reading comprehension before entering first grade”, and their achievement is important because “these children have had little or no exposure to standard reading instruction” (p. 234). Applying Gagné’s (2009) definition, the children were innately gifted at reading.

The criteria for inclusion in the study were that the children were able to demonstrate exceptional competence at reading, and that they were aged no older than 4:10 at the start of the study (in New Zealand children traditionally start school on their fifth birthday). Children were recruited as a result of personal contacts within the early childhood education sector or from flyers. The flyers, inviting contact from people who “know of a preschooler who is able to read”, were sent to local early childhood centres, kindergarten and playcentre associations, and home based early childhood education networks (Margrain, 2005, Appendix A). It was estimated that the services approached had 3,500 3- to 4-year-old children on their combined rolls. Flyers were also left at public libraries inviting contact.

From the recruitment processes, 11 4-year-old children were nominated by either parents or teachers, assessed by the researcher as having reading accuracy levels of at least 7:0 years using the Neale Analysis of Reading (Neale, 1999), and invited to participate in the study. These 11 children, their parents, and teachers all agreed to participate. Four of the children were girls, and seven were boys. All families included both father and mother. Four of the families identified as Asian, and seven families identified as European New Zealanders. Psuedonyms are used throughout this paper to refer to participants in the study.

The study had ethics approval from Victoria University of Wellington. A range of formal and informal data gathering methods were used within a case study approach, including standardised tests, special ability rating scales, semi-structured interviews and observations. Some of these methods are discussed in the following section on assessment approaches.

**STUDY B: LEARNING STORIES**

The aim of the learning story study, which is still in progress, is to collect and share formal or informal stories of exceptionality, and the learning of young gifted children. The narratives are authentic, written by teachers or parents of children enrolled in four early years (birth to age 8) services, during 2009 to 2011. These early childhood services were recruited because of interest amongst staff in young gifted children, and because the staff had expertise in writing learning stories. The researcher worked with teachers to gather learning stories suggested by the teachers as exemplifying characteristics of giftedness, particular learning dispositions, or ‘wow!’ moments. In some centres, on request, the researcher provided some professional development around concepts of giftedness or the writing of learning story narratives. The study has ethics approval through the Massey University Human Ethics Committee.

2005; Davis & Molloy, 2004; Ministry of Education, 2009; Molloy, 2005). Learning stories may bring to the fore broad curriculum achievement areas and goals; dispositions or key competencies; and aspects of effective pedagogy.

Assessment Approaches

In this section four different approaches to assessment, that teachers are readily able to utilize, are described. These assessment approaches are: (1) curriculum assessment tools; (2) rating scales and checklists; (3) observation; and (4) narrative assessment, including learning stories. These four approaches are by no means the only or best approaches, however they are significant because they are all tools that are available to teachers, able to be understood by teachers and parents, and can directly support teaching and learning. In this section the approaches and some specific tools are reported, with examples provided from the two research studies. Particular tools cited are not referred to as recommendations, but are chosen to illustrate the kind of information gained from the overarching assessment approach. The discussion considers ways in which assessment may support learning, and limitations of each approach.

Curriculum Assessment Tools

Teachers have a huge variety of curriculum assessment tools available to them, including standarised tests, exemplars, and observational approaches. The selection of tools will vary for different education contexts, but for literacy may include running records of reading (Clay, 2003), asTTle (Assessment Tools for Teaching and Learning; Ministry of Education, 2005), STAR (Supplementary Tests of Achievement in Reading, Elley, 2001) or various spelling tests (see http://toolselector.tki.org.nz/content/view/full/81 for further tools). Teachers are generally well experienced in administering such literacy assessment tools, most of the tools are relatively inexpensive and manageable within education settings, and the data has the potential to support learning if the information is used formatively to inform teaching purposes. When selecting any tool, teachers will need to consider the purpose for assessment, and balance issues of reliability, validity, authenticity, manageability, and age-range suitability.

An example of literacy assessment is available from the previous readers study (Margrain, 2005). Children, aged 4:01 to 4:10, were tested using the Neale Analysis of Reading (Neale, 1999), an Australian test. Results include:

- **Word reading age:** from 6:11-7:05 to 10:04-10:10
- **Reading accuracy age:** 6:07 to 10:08
- **Reading comprehension:** 6:03 to 8:03
- **Reading rate** (fluency): 7:0 to 13:0+

These scores may be applied as simple numerical labels “he’s reading at a 10-year old level”, or the information may be used more effectively by teachers to inform teaching and learning opportunities.

Henry, aged 4:09, read the following Level 5 passage from the Neale Analysis of Reading (Neale, 1999) in 89 seconds, with 100 words read correctly out of the 117 total words (the seven errors are shown in bold) – an accuracy rate of 94%. However, in addition to obtaining a reading age and accuracy percentage, the phrasing, engagement and emotion Henry demonstrated while reading could illustrate to his teacher qualitative aspects of his reading voracity and passion.

Among animals the fox has no **rivval** [rival] for cunning. **Aspychus** [suspicious] of man, who is its only natural enemy, it will, when **purshowed** [pursued], perform extraordinary feats, even alighting on the backs of sheep to divert its scent. Parent
Assessment for learning with young gifted children. APEX, 16(1). Retrieved online from http://www.giftedchildren.org.nz/apex

foxes share the responsibilities of cub-rearing. Through their hunting expeditions they acquire an uncanny knowledge of their surroundings which they use [Repeated: ‘which they use’] in an emergency. This is well illustrated by the story of a hunted fox which led its pursers [pursuers] to a neglected [neglected] mine-shaft enclosed by a circular hedge. It appeared to surmount the barrier. The hounds followed headlong, only to fall into the indirectly (accumulated) water below. The fox, however, apparently on familiar (familiar) territory, had skirted the hedge and subsequently escaped. (H: Test Results)

Comprehension scores were slightly below the reading ability ages for the children in my research, but still well above their chronological age. For example, Erin, aged 4:07, had a reading accuracy of 8:01 on the first version of the Neale, and a comprehension level of 7:01. Although her comprehension was a year below her reading ability, it was still 2½ years above her chronological age. This information negates assumptions that children who read precociously cannot understand material beyond their chronological age. Teachers may add insights gained from their observation of reading behaviour to assumptions about comprehension rather than relying on formal test questions alone.

A key finding from the Neale Analysis of Reading was clear confirmation of the children’s reading fluency. Every child who participated in the study had a fluency rate significantly above their chronological age, and most of the children had fluency rates above their reading ability rates. For example, Erin had a chronological age of 4:07, a reading accuracy level above 8 years on the two forms of the Neale, and a fluency rate above 13 years equivalency. Similarly, Julia had a chronological age of 4:01, reading accuracy around 7½ years and fluency rates of 9:01 and 12:03 on each forms of the Neale. Fluency can be used as an indicator that the early reading is genuinely precocious, rather than ‘taught’ (Margrain, 2005).

Assessment in the precocious readers study also included the Burt Word Reading Test (Gilmore, Croft & Reid, 1981), a quickly administered tool which was commonly used in New Zealand schools at that time. Age-equivalent band scores on the Burt ranged from 6:10 to 10:06 years of age (band midpoints). Examples of words that children could correctly read from the Burt include:

overwhelmed, fringe, explorer, encyclopedia, luncheon, shelves, terror, universal, events, emergency, journey, tongue, urge, trudging, binocular, destiny, economy

While the Burt may be used by teachers simply to diagnose a word reading age band, it is most effective when teachers use the assessment in conjunction with other assessment tools. For example, a teacher may have, through observation, a hunch that a child has reading ability beyond expectation, or the teacher may want to remove expectation altogether. By themselves, neither the Neale or the Burt are likely to guide the teacher’s explicit planning, although a deeper analyses of the Neale should reveal particular reading strategies such as use of omissions, substitutions, deletions and so forth. It is more likely that the teacher will make decisions as a result of combining any curriculum assessment information to findings to her observation, years of experience, intuition, and consultation with students and families.

Limitations of curriculum tools include the reality that busy teachers may not take the time to fully read instruction manuals, thereby compromising reliability. For some tests, validity and authenticity are of concern if the tasks assume particular cultural constructs, are dated, or are trialed on limited population cohorts. A further limitation is the possibility that exists to use the tool to label and judge learners negatively, or to justify negative practices.
RATING SCALES AND CHECKLISTS

Scales and checklists are quick and easy assessment tools to administer, however should always be used with caution. Results do not formally diagnose giftedness, or its absence, but they can suggest to a teacher that investigating further would be warranted. Within the precocious readers study (Margrain, 2005), two tools for the identification of giftedness or special abilities were used, a rating scale and a screening checklist. Each of these tools provided useful information about some of the children in the study, but neither of the tools confirmed all of the children in this study as having being gifted.

The first tool, a checklist of 15 items adapted from Jones (1988), was completed by parents during semi-structured interview. The original checklist information suggests that if eight or more items are checked, further assessment is warranted, and if 12 or more items are checked then the child is almost certainly gifted. Only one child scored 12 or more items (Nathan, 4:07, who had 14 of the 15 items ticked). However, all except one child scored at least 8, meaning that if the test was used by teachers, it should have indicated that further testing was warranted. The only child who scored less than eight was the youngest (aged 4:01), signaling that identification approaches for young children need to be varied; no single method is definitive, and the youngest children are at greatest risk of being missed. Only two checklist items were checked by all parents, suggesting that these items have particular significance. The first was: “Asks a lot of questions”, affirming the children’s expressive communication skills and inquiring disposition. The second statement was: “Shows interest and aptitude in many areas”, acknowledging a holistic perspective of the children. Six additional items were checked by at least eight of the eleven parents, indicating that they are also items of particular importance for the children in this study: “Learns new material quickly”; “Has a larger than usual vocabulary for age”; “Has a quick sharp memory”; “Is able to verbally express ideas easily”; “Has a long attention span”; and “Adjusts to change easily”.

McAlpine and Reid’s (1996) Teacher Observation Scales involve rating the strength of statements on a four-point scale and was used by parents and teachers within the precious reading study (Margrain, 2005). The Giftedness in Early Childhood Scale (Allan, 1999) is an alternative which was developed specifically for the early years (birth to age 8). McAlpine and Reid’s (1996) scale has five clusters of characteristics: learning, social leadership, creative thinking, self-determination and motivational. The scale was completed by parents or teachers for nine children in the study, either by parents or by teachers. Five of the nine rated children were rated as having a probable or highly probable strength. Each characteristic cluster applied to at least one child; however, of the nine scales completed no single characteristic cluster had any more than three children rating strongly. No child rated strongly in every category of characteristic, although it should not be expected that children must demonstrate ability in every area. Interestingly, the most cognitively able child in the study was one of five children who did not rate strongly in any of the characteristic clusters.

When completing the checklists and rating scales, parents and teachers made anecdotal comments that strengthened their responses. For example, when marking the checklist item “is anxious about work being perfect”, Henry’s parents wrote “Yes, yes, yes!” For the checklist item “has a long attention span”, Oscar’s parents added “especially computer and reading”. In this respect, checklists and rating scales may be most valuable as opportunities to initiate further dialogue and probing with families, rather than providing definitive results per se. The tools can amplify areas that would be valuable to investigate further, thus adding to a broad body of knowledge.

A limitation of these tools is the possibility that results could be misused to say that a learner definitely is, or is not gifted. Instead, findings from rating scales and checklists should be viewed in
conjunction with findings from other assessment sources. On their own, findings are unlikely to inform teaching and learning, but as part of a suite of information may assist teachers to know more about learners. Teachers and other assessors must read instruction manuals and accompanying guidelines carefully and apply caution to interpretation.

Observation

In the study of precious readers (Margrain, 2005), parents and teachers observed the children’s engagement with reading. They linked this to a desire and “thirst” for learning.

He enjoys it a heck of a lot. There is no way he’d do this much if he didn’t enjoy it. It’s just something he does. Wandering around the supermarket shelves reading etcetera. (Alistair, 4:10, Parent interview)

He devoured books, for example reading all of their new library collection in a single morning. (Matthew, 4:03, Fieldnotes)

The mother of Julia (4:01) knew that her daughter had understood the plays and novels she read in her free time because of the way she could discuss issues from the characters’ perspectives. However, the early childhood teachers of Gillian (4:03) would not allow her to read books beyond her chronological age because they believed she did not have comprehension of the meaning of more advanced texts.

They [early childhood teachers] were sending home books like “this is a cat, this is a dog”. It was quite a fight to get her books at her level. They felt her comprehension was low, but I think she didn’t know what they wanted. She would say “I don’t know”. She does understand ... she knows what the character is feeling. Also, she’ll be sitting in bed laughing, getting that from the text, getting feelings, humour, understanding. (Gillian, 4:03, Parent interview).

Through observation, parents were also well aware of the exceptional speed of their children’s reading. Erin, at four, did not like her mother reading to her any more, because her mother read slower than Erin could read herself. Gillian’s mother also commented on reading speed, stating, “She’s galloping ... gobbling up her book like eating very fast.” Aspects of reading that formal assessment did not capture, but that parents usefully commented on, include the fervor, strong enthusiasm and delight displayed by the children. All of the children’s families commented on the high level of reading engagement, the children’s “love of reading”, and how they were “devouring books”.

Parents were able to confidently discuss their observations of their children’s learning behaviour, and shared relevant supporting anecdotes and examples to illustrate and justify their comments. Many of these qualitative observations could not have been captured through more formal assessment methods. In addition, parents had a wealth of knowledge about children’s individual strengths and interests, for example, dinosaurs, music, space, Antarctic cod, favourite books, authors, characters, and friends. Some teachers, in either early childhood or school settings, consulted parents to find out about the children’s strengths and interests, recognising that children did not learn only in formal education settings. In other settings, teachers were negating, disbelieving or negative about the children’s giftedness. It is ideal that parents and teachers, and where appropriate other educational experts, collaborate together to share assessment information about the child. Each group of people is able to bring important information and perspectives that contribute to collective assessment understandings (Margrain & Clements, 2007).

Limitations of observation include that, as a subjective method, shared dialogue is required to

explain the significance of events. Observations are filtered through the eyes of those observing, which highlights the need for teachers and child advocates to have expertise in knowing what to observe, how to record, and how to professionally reflect on and analyse observations. As a result of observation, the need for further assessment may be noted; however, on its own this assessment may have limited pedagogical rigour. Because it is impossible to expect that teachers or parents will be able to observe everything, consultation and inclusion of an array of assessment approaches is important.

**Narrative Assessment**

Carr (2001) claims that narrative assessment keeps learning complex rather than fragmented, ensures that learning is holistically connected and contextually meaningful, and enhances credibility. Narrative assessment is “learner centred, credit based, and illustrates learning and achievement within authentic contexts” (Moore, Molloy, Morton & Davis, 2008, p. 1).

*Kei tua o te pae Assessment for learning: Early childhood exemplars* is a resource provided by the Ministry of Education (2004/2007/2009) to support teachers in noticing, recognising, responding, documenting, and reporting student learning in ways that are meaningful for students, their families, and educators. Observation, therefore, is a critical component of narrative assessment. The predominant method of narrative assessment used in *Kei tua o te pae* is learning stories. Other narrative assessment approaches include the use of portfolios, anecdotal observation, video recording, interviewing, and use of peer and self-assessment. Narrative assessment is not new, but formal recognition of the approach as a valid assessment approach is more recent.

Carr (1998a, 1998b) refers to *Learning Stories* as a type of documented assessment narrative which highlights dispositions for learning connected to the early childhood curriculum *Te Whāriki* (Ministry of Education, 1996). Learning Stories focus on actions and relationships and enable the teacher to see the child and their learning in a wider context. This approach does not compare students to others, nor to standards. In this way Learning Stories value and foster the students’ progress and competency at the same time recognising that this progress is socially mediated and co-constructed.

Learning Stories not only look back, but they are constructive and forward looking through providing teachers and learners a process of seeking and interpreting evidence to open up possible learning pathways. They are also enabling teachers to view the students as mindful and competent in learning contexts (Moore, et. al., 2008).

Each learning story will be individualised; some use templates and some do not, some show connections across time and space, others are snapshots in time. Some of the expected elements of learning stories include: the narrative; images; voice; reflection; and links to teaching and learning. Within the study, early childhood teachers shared their learning stories of children, and these assessments illustrated ways that the children contributed to their education settings and participated in communities of learning. An online article (Margrain, 2009) shares two learning stories of two children, and an excerpt of a learning story is provided below to illustrate the narrative style of this form of assessment.

**MARSHMALLOW SOLAR SYSTEM NARRATIVE**

Children at an early childhood education session were given toothpicks and marshmallows, and a small demonstration on how to create multisided 3-dimensional shapes. Children created pyramids,
prisms, cubes, pentagons and octagons, then attempted dodecahedrons and other shapes. On the way home in the car, Xavier (4:08) dismantled his shapes and produced a replica of the solar system with his toothpicks and marshmallows, including (correctly) the major moons for each planet. A few weeks later he announced that he was going to build the solar system again, but with the space probes/man-made satellites that belonged to the planets, as he’d already done the moons before. Figure 1 provides a picture of Xavier’s second solar system construction; his explanation is below.

![Image](image_url)

**Figure 1. Solar system.**

*This is a picture of the planets with man-made satellites and some moons. If you start on the right hand side and work your way over to the left, we start with the sun, then Mercury, then Venus – the marshmallow out of those represents Mariner 10, the first space probe to do flybys of the planets. Next the one with heaps out of it is earth, but there wasn’t room to put any more although there are heaps of satellites flying around the earth, but the white one on its own is the moon. Next is Mars and Phobos and Demios and Space Probe Pathfinder, then Jupiter with its four main moons and Voyager, then Saturn with the Saturn Cassini and Voyager 2, then Uranus and Neptune with Voyager 2, and Pluto with Charon. When the model was made Voyager 2 hadn’t reached Pluto yet, but it has now.*

(dictated by Xavier, 4:08)

The narrative of Xavier’s marshmallow solar system documents his advanced knowledge and understanding, persistence, interest and continuity of learning across time. It is unlikely that any other kind of assessment of Xavier would have the impact OR ‘Wow!’ of this narrative.

Narrative assessment enables multiple participants to engage and have their voices represented, and can be responsive to local cultures, communities and contexts. Narratives can be recorded by teachers, parents and family, and children themselves; all these stakeholders are able to document their insights and understanding of learners. Further, narratives are intended to be accessible – the point of story-telling is to share and re-tell the stories. Thus, using narrative assessment can illustrate learner strengths, interests, abilities and competence. In addition narratives support advocacy by documenting exceptionality, within social contexts and relationships.

While narrative assessment makes no apology for being subjective in nature, it is true that teachers need to develop expertise in knowing what it is that they are noticing, recognising and responding to, so that documentation moves beyond anecdotal snapshots. In terms of giftedness, teachers require understanding of potential indicators. Blaidlock (2009) suggests that focusing too heavily on learning
stories limits the ability of teachers to identify or extend children’s thinking, and Te One (2002), notes a concern from teachers regarding manageability. As noted earlier in this paper, a range of assessment approaches is most likely to support teaching and learning, but inclusion of narratives within the range is recommended.

### Assessment as Identification

Narrative assessment challenges the assumption that giftedness can only be assessed by normalised tests that rank or rate populations in comparison to one another. Instead, narratives describe what giftedness means in terms of sociocultural contexts, and across broad domains (Moore et al., 2008). By carefully noticing, recognising and responding to learners (Ministry of Education, 2004/2007/2009), narratives can capture aspects of curriculum not easily assessed in any other way, particularly nonacademic aspects of curriculum.

An assumption may be made that effective, strength-based formative assessment in action will naturally ensure that learners’ capabilities, competencies and interests will become evident. It is important that we both identify children who are gifted and talented, and also provide differentiated programmes. Assessment needs to reflect a multi-categorical definition of giftedness, ensuring that we do not only acknowledge learners who are capable in traditional academic areas, but also areas such as music and leadership. However, unless a broad range of methods is used that provides opportunities to recognise gifts and talents across the curriculum, there is little point having multi-categorical definitions. This range of methods needs to include tools that are accessible, authentic, low-cost, and easily administered. It is also important that the methods are inclusive of young children in early childhood and the earliest years of school.

IQ tests may only be administered by qualified and registered test users, and are less reliable with young children. Access to testing is ethically challenging in New Zealand; in the absence of national resources for assessment and identification of gifted children some parents feel obliged to pay private psychologists, yet this cost is beyond the reach of many families. As long as IQ tests are valued yet limited to the economically privileged, identification of giftedness will be biased and limited to a small range of constructs. More importantly, concepts, findings, and language used in IQ and some other test reports may not be easily understood by teachers and families. Further, connections between psychometric results and the learning that occurs in school classrooms and early childhood education settings are not necessarily clear. There may be a place for such testing in certain circumstances, and the information can add to findings from other assessment sources; nevertheless, normative tests need not be seen as a requirement for identification. Returning to the learning story of Xavier’s marshmallow solar system, it should be clear that he is gifted regardless of any subsequent formal tests.

Teachers need support to enable them to effectively analyse their assessment records in order to be able to identify gifted children. However, it is more likely that teachers will achieve success if they use assessment methods that are accessible and familiar, that they use for all children, and that relate to pedagogical practice. Within the case studies of precocious readers, teachers and parents used assessment information to understand the children and to inform future teaching and learning; they did not use assessment to label or diagnose. Learning stories considered the children’s dispositions for learning (Carr, 2001) and considered possible pathways for ongoing learning. In Xavier’s learning story, we can see that the disposition of ‘taking an interest’ is evident.

Summary

Multi-categorical definitions of giftedness and talent necessarily demand broad and diverse methods of assessment and identification. Use of an array of assessment approaches, such as the examples used with young gifted children described in this paper, offers constructive possibilities for teachers, families and children to engage effectively in purposeful assessment. Using assessment tools as part of assessment for learning should ensure that findings become part of teaching, curriculum delivery, and responsive education for young gifted learners.

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