Although an extensive amount of research has been carried out on early childhood education and on the ways in which children learn and develop in their early years, there is little research on gifted children in early childhood, from what I have found in the literature. Most of this research has been based on standards-centered assessment, which compares children to a 'norm', and rates them on a scale that compares them to one another. There does not appear to be a lot of learner-centered assessment, which focuses comparisons on the individual learner across time and context, rather than between individuals (Margrain, 2010).

This is important for ‘highly gifted’ children, as they invariably develop different skills and dispositions at different ages or stages [asynchronous development (Radue, 2009)] than their age-peers (Bruzano-Ricci, 2011; Porter, 2005; Porter, 2006; Walsh, Hodge, Bowes & Kemp, 2010). Gardner (1983) has a more simplistic view, arguing that, in most cases, abilities across all domains are correlated and overlap, so children who are capable in one domain are usually just as capable in most other domains.

Gross (1999) points out that giftedness in children is so often misdiagnosed or even simply missed. It is, instead, passed off as precociousness, ‘just normal age-stage stuff’, or as parents pushing their children too hard. This paper will review the literature available on giftedness in early childhood education, with a particular focus on the New Zealand context. It will identify according to the signs and indicators of giftedness in children in early childhood settings, and how gifted children can be supported in their learning and development. The review will be structured using headings to group relevant literature and/or theories.

**The statistics**

According to Hollingworth (1926, as cited in Gross, 1999), children with an IQ of 125-155 are considered moderately gifted and occur in America at a rate of around 1 in 100. A child with an IQ above 155 is considered highly gifted. This occurs at a rate of approximately 1 in 10,000 (Hollingworth, 1926, as cited in Gross, 1999). However, figures for high giftedness in New Zealand children vary considerably from the American figures. Keen (2005), in a study to identify high giftedness in New Zealand in the new millennium, found that of 10,000 children studied, 9.6% of boys and 9.2% of girls were identified as gifted. Porter (2006), in an Australian study, quotes similar statistics to the New Zealand study.
These figures might be valuable, as they show that giftedness is more common than the majority of teachers may realize. In several studies, parents are regarded as more accurate at recognizing giftedness in their children (Feldhusen & Baska, 1989; Robinson, 1987; Roedell et al., 1980). In two studies (Ciha, 1974; Jacobs, 1971), “…parents correctly judged their child’s giftedness 76% of the time, compared with 22% and 4.3% for early childhood teachers’ ratings in the respective studies” (Porter, 2006, p. 1). Other studies, according to the research criteria, found similar scores for parents identifying their children as being gifted. Louis and Lewis (1992) found that 61% of parents studied correctly identified their preschool children’s advanced development, with the remaining 39% falling just below the gifted category. Despite these findings and figures, teachers continue to disregard parents’ views or concerns about their children’s developmental milestones, and dismiss them as exaggerated and biased (Chitwood, 1986; Roedell et al., 1980; Porter, 2006). Porter (2006) poignantly confesses to have spoken to teachers who claim that, in 25 years teaching, they have never met a gifted child. This is a disturbing statement and a sad indictment on the teaching profession, particularly as it is a view that is still present in some services. Even more disturbing is a statement from one early childhood teacher in Lee’s (2000) Australian study, that in 35 years experience, he had never met a gifted girl, although he had occasionally recognized giftedness in boys.

**Giftedness and IQ testing**

Almost all of the research literature points out that gifted children pass through different milestones and stages of development that are “…unique to them…” (Chamrad & Robinson, 1986, as cited in Harrison, 2003), and they often hide their talents/giftedness (Berk, 2009; Gross, 1999; Keen, 2005; Margrain, 2010; Walsh et al., 2010). This is usually in an attempt to appear ‘normal’, and therefore more readily acceptable to their peers. For these reasons, IQ testing of gifted children is considered inaccurate and therefore irrelevant or inappropriate (Bruzzano-Ricci, 2011; Harrison, 2003; Radue, 2009). Kearney (2000), meanwhile, also points to tiredness and insecure feelings in a strange environment as impacting conditions that contribute to the argument for discouraging formal testing for children under the age of four years.

Porter (2006), on the other hand, in a study titled ‘Twelve myths of gifted education’, advocates for IQ testing for gifted children who may be experiencing social, emotional, or academic problems. She identifies advantages of formal testing as:

- explanations to the child of findings from testing can help the child understand more about how their brain works
- previous negative explanations of social or emotional difficulties can be countered by identification of giftedness
- test results can empower parents to advocate for programmes that are better suited to their child’s needs, as well as making it easier for them to define their role in supporting their child’s learning and development (Porter, 2006).

Porter (2006) goes on, however, to agree that IQ tests tend to measure a very limited range of skills and abilities. Sternberg et al. (1996) agree, pointing to the
fact that IQ tests were never designed to assess other development areas, such as music, sport, creativity, or the emotional or thinking processes, such as analysis (Sternberg et al., 1996). This may be seen as a rather cynical viewpoint, particularly as children in the lower IQ range are also subject to the same testing, but no mention is made in the literature of them being unfairly treated.

There has been a plethora of research carried out on signs and indicators of giftedness in children, sadly, far less so on their early childhood years. Most authors and theorists agree on the major characteristics to look for. These characteristics usually include, but are not limited to early speech or language development, early body movement, and early reading ability (Gross, 1999).

Precocious speech development is a powerful indicator of high giftedness, and most early childhood teachers should recognize when a child is displaying advanced language skills. Robinson (1987), however, points out that, while unusually early speech development points to high giftedness, delayed speech can also occur. In this instance, the child's speech often arrives in short sentences or phrases, instead of single words, or words in isolation (Gibson & Mitchell, 2005; Gross, 1999; Porter, 2005). Highly gifted children are most at risk of concealing their talent at this stage, particularly if it becomes a source of attention or disapproval from peers. The child may also develop two vocabularies – one for the centre and one for at home (Gross, 1989; Keen, 2005; Radue, 2009).

Some, teachers included, argue that everybody is gifted at something, as an excuse for not attempting to look for giftedness characteristics (Berk, 2009; Gross, 1999; Plunkett, 2000). Porter (2006) disagrees; she argues that this is a myth that can be easily dismissed by looking at the statistics; as gifted means achieving at significantly above average levels, it is statistically incorrect to claim that everyone is above average. She states, "It is akin to claiming that everyone is six feet tall and those who aren't are either being stubborn about it or have been measured wrongly" (Porter, 2006, p. 4). She further argues that, as nonsensical as this claim is, the fact is that the concept of multiple intelligences has actually reinforced it.

**Gifted education**

There is ample research literature available that promotes gifted education programmes that support gifted children's needs (Bruzzano-Ricci, 2011; Gibson and Mitchell, 2005; Gross, 1999; Harrison, 2003; Keen, 2005; Margrain, 2006). Conversely, Porter (2006) argues an interesting case for standard programmes for gifted children. She contends that evidence is still accumulating that gifted education delivery actually achieves better outcomes for gifted children than regular placement. This lack of evidence, Porter claims, reflects the difficulty of quantifying the myriad of complex associated outcomes. It is rather difficult to acknowledge this line of thought, particularly given that Porter then concedes that, while evidence is accumulating, it is best to persist with efforts to provide gifted education – not because this will “…produce better long-term outcomes but because that is more likely to meet the children’s needs in the present" (Porter, 2006, p. 13).
Giftedness and socio-emotional development

Contemporary research points to gifted children, particularly high-gifted children as frequently experiencing issues with socio-emotional development. Indeed, Berk (2009), Gross (1999), Margrain (2006; 2010) and Harrison (2003) all refer to socio-emotional development problems as being one of the major characteristics and indicators of high-giftedness. Taylor (1996) takes this a step further by arguing that gifted children may be at risk of social and emotional problems, primarily because their atypical needs and precociousness are routinely met with indifference or negativity, both by teachers and others outside their immediate family (Taylor, 1996). The result of this being that gifted children find themselves having to adjust to society, instead of society adjusting to them (Taylor, 1996).

Again, Porter (2006) has an interesting take on this suggestion. She claims that an “…equally impressive body of researchers and writers concludes that gifted children’s social and emotional development actually proceeds better than average learners” (Clark, 1997; Grossberg & Cornell, 1988; Janos & Robinson, 1985; Kunkel et al., 1995; Moon et al., 1997; Olszewski-Kubilius et al., 1988; Parker, 1996, as cited in Porter, 2006, p. 7). Porter argues that this may be due, in part, to the fact that most gifted children are capable of using their advanced cognitive skills to solve any problems they may face, enabling them to make adjustments and adapt to their giftedness. Porter also claims that the support gifted children receive from their family and the wider community supports them to become both high-achieving and well-adjusted. This seems rather contradictory in light of the evidence of the negativity and indifference that these children may face from the wider community (Taylor, 1996).

A third body of research takes the middle ground (Feldhusen & Nimlos-Hippen, 1992; Neihart, 1999; Rost & Czeschlik, 1994). The argument put forward by this group is that, emotionally, there is no difference between gifted and average learners; therefore, gifted children have no emotional adjustment problems. This viewpoint is certainly in contrast to the predominant opinion of socio-emotional difficulties as being a major and, more often than not, obvious characteristic of giftedness in young children.

Giftedness and governments/ministry/policies

Every child in Aotearoa/New Zealand has the right to an equal and equitable early childhood education, including children with special or diverse needs. This is clearly outlined in Te Whāriki (Ministry of Education [MoE], 1996) New Zealand’s early childhood education curriculum document. In the curriculum document, it states “Care and education for children who have special needs is provided within the diverse range of early childhood services” and “The curriculum assumes that their care and education will be encompassed within the principles, strands, and goals set out for all children in early childhood settings” (MOE, 1996, p. 11). In 2001, a working party on gifted education was formed, which provided advice about a policy framework for gifted and talented learners. However, Wong and Hansen (2012), in an article for the New Zealand Association for Gifted Children, contend that the Working Party overlooked the early childhood sector, and, as a result, Te Whāriki does not mention the need to cater for gifted and talented learners. Yet, according to the Ministry of
Education: *Te Whāriki* is designed to be inclusive and appropriate for all children (Wong & Hansen, 2012).

Wong and Hansen point to the extent of the Government's lack of support being made apparent in 2009, when funding for gifted and talented education was reduced by almost half, to $2.82 million. In 2010, funding was further cut to $1.27 million, an additional reduction of 45 per cent. This means that funding cuts of around 75–80 per cent have occurred since 2008. It is their view that, even though the 2001 Working Party was charged with “…showing governmental commitment to supporting gifted and talented students, provisions for gifted and talented education have diminished, not grown” (Wong and Hansen, 2012, p. 2).

They continue, pointing out, rather cynically perhaps, that, while these financial cost-cutting measures are likely to have a minimal effect on gifted children, due mainly to the fact that they already survive with little or no support, it in no way excuses these kind of funding cuts or policies. It is very easy to become cynical and sympathize with Wong and Hansen (2012), particularly when the government appears to be very quick to espouse its policies on inclusion in the education system, but equally good it seems at disguising funding cuts to specialist services. It is refreshing to see researchers such as Wong and Hansen (2012) keeping the Government and Ministry honest by pointing to its failings, even though their protestations will probably fall on deaf ears.

**Conclusion**

This paper has highlighted some the issues surrounding giftedness in early childhood education, with a particular focus on the New Zealand context. It has shown how important these issues are for the inclusion of gifted children in early childhood education programmes. It has referred to many research studies to inform robust debate on these issues.

**References**


Identifying children’s giftedness can be a difficult task, partly because of the many forms giftedness are not always easy to see in early childhood (Bow, S.M. @ Owen, SV., 2004): So now is very clear why is the great importance of early identification of gifted children, as well as the creation of conditions in the family and in school. Therefore, the early identification of gifted children with some psychological problems is very important. They need to be identified as early as possible if they are to reach their developmental potential. Identifying children’s giftedness can be a difficult work; partly because of the many giftedness can take. In addition, many forms of giftedness are not always easy to see in early childhood. Gifted children are born with advanced abilities. Talented children have developed these abilities to a high level. Read about gifted and talented children. Children can be gifted in any area of ability, and they can also be gifted in more than one area. For example, a child might be gifted creatively and intellectually. Or he might have above-average physical coordination and memory, or more social and emotional maturity than other children his age. Some physically advanced children might excel early in gymnastics. Another sign is that your child might prefer to talk with older children or adults. For example, your four-year-old might relate better to six-year-olds than to children her own age.