THE EDUCATIONAL CONTEXT AND SERVICES OF CHILDREN WITH ADDITIONAL NEEDS IN THEIR FIRST YEARS OF SCHOOL IN AUSTRALIA

Sarah H. McDonagh, Loraine A. Fordham
Charles Sturt University
Julie A. Dillon-Wallace
Queensland University of Technology

ABSTRACT
In Australia, children with additional needs are now primarily educated in mainstream regular classes and schools. While discussion has focused on teacher attitudes, teacher preparation and professional development to support the academic progress of children with additional needs, there is limited research examining the educational contexts and services provided to such children in Australian schools. This descriptive paper examines the educational contexts of 563 Australian children with additional needs, in reference to 3600 of their typically developing peers. Data in relation to educational setting, retention, prevalence of additional needs, access to specialist services, learning support, and individual programming are reported.

INTRODUCTION
Now, more than ever before teachers require the knowledge, expertise and ability to plan for and differentiate instruction in the regular classroom. An increasing emphasis on inclusive classroom practice in Australian schools requires teachers to cater for students with a diverse range of abilities in regular education settings (Dempsey, 2009). This research examines the representation of, and services provided to children with additional needs in their first years of primary school in Australia; specifically children who have intellectual, sensory, physical, speech/language impairments, learning difficulties in reading or mathematics, emotional/behavioural problems, or autism spectrum disorder.

In Australia, approximately 4.4% of children enter their first year of formal schooling with, or at-risk for, chronic physical, developmental, behavioural, or emotional conditions, and who also require health and related services of a type or amount beyond that required by the majority of children generally (Goldfield, O’Connor, Sayers, Moore, & Oberklaid, 2012). In addition, a further 18% of children experience difficulty or impairment in one or more areas of development that are of concern to teachers (Goldfield et al., 2012). The majority of these children are educated in a regular school and classroom setting. Furthermore, data sourced from the Australian Bureau of Statistics (ABS)
indicated 9% of Australian children aged between 5 - 14 years had a reported, diagnosed disability (ABS, 2012). These data illustrate the variability surrounding the classification and identification of children with additional needs in Australia, and that disability exists on a continuum. The inconsistencies reported in the prevalence rates of children with additional needs in Australian schools is an outcome of the methodology used around the identification and classification of need, and the age/stage at which the additional need is identified (Dempsey, 2004). For the purpose of this study, we recognise the nexus between children’s actual learning need and the level of support they receive in educational settings (McLeod & McKinnon, 2007). As a consequence, we adopt a broad approach to the classification of need and examine the educational context of children with learning difficulties in reading or mathematics, speech/language impairment, intellectual disabilities, sensory impairment, physical disabilities, emotional/behavioural problems, or autism spectrum disorder. In examining specific categories of need in this study we are not advocating for a categorical approach to the education and provision of services to children with additional needs in Australia, rather, we are seeking to provide a more comprehensive view of the services provided to a broader population of children with additional needs in schools in this country.

EDUCATIONAL CONTEXT AND SERVICES

Significant change in the landscape of education for children with additional needs has occurred over the previous 25 years. This transformation has occurred in Australia largely as a consequence of: a strong advocacy movement driven by principles of equity and social justice; the Disability Discrimination Act (Commonwealth Government of Australia, 1992), and the supporting Disability Standards for Education (Commonwealth Department of Education, Science and Training, 2005); Australia becoming a signatory to the United Nations Convention on the Rights of Persons with Disabilities (2006); the requirement of basic special education training for pre-service teachers; and, the wide-scale adoption of education policies that promote inclusion (Dempsey, 2007; Foreman & Arthur-Kelly, 2008; Smyth King, 2012).

In Australia, children with additional needs should be educated in the least restrictive environment (Commonwealth Department of Education, Science and Training, 2005; Commonwealth Government of Australia, 1992). This least restrictive environment falls on a continuum based on student need: ideally, for the majority of students this environment is the regular classroom (Smyth King, 2012). For others, this may be in the form of a more traditional specialised segregated classroom placement such as classes for students with mild, moderate or severe intellectual disability; behaviour disorders; emotional disturbance; sensory impairment; and language difficulties. In Australia, parents primarily choose the educational setting in which their child with additional needs is educated (Dempsey, Foreman, & Jenkinson, 2002) and more frequently these children are educated in government schools rather than Catholic or Independent schools (Dempsey, 2011). In New South Wales alone, 77% of students with a disability, learning or behaviour difficulty are enrolled in government schools (Smyth King, 2012). Furthermore, a greater proportion of children with an Individual Education Program (IEP) are educated in government schools (Dempsey, 2012).

An emphasis on inclusive educational placement prevails within Australia. Clearly this poses challenges for systems in terms of how best to support students with additional needs to be successful in inclusive contexts. In addition, it presents a challenge for teachers in terms of their capability to understand and respond to
the learning needs of all students, and for the quality of instruction that teachers are required to design and deliver for diverse student populations (Smyth King, 2012). Class size is frequently viewed as one variable that may be altered to improve the quality of classroom instruction and produce significant improvement in student achievement. Reduced class sizes have been found to raise average achievement levels and reduce achievement gaps for students with and without disabilities (Bosworth, 2011). Likewise, grade retention has been used in education systems as a means of supporting children with disabilities to be successful in their educational setting (Tingle, Schoeneberger, & Algozzine, 2012). While intuitively appealing, longitudinal research provides little empirical support for the practice of grade retention (Goos, Van Damme, Onghena, Petry, & de Bilde, 2013; Jimerson & Ferguson, 2007; Tingle et al., 2012).

One means of improving the capacity of teachers to respond to student learning needs and provide high-quality differentiated instruction is through the provision of educational services. Educational services may include specialist support provided to students through IEPs, specialised personnel support that is tailored to specific student need, and the provision of aide time in the classroom. In Australia, there is a lack of continuity in policy regarding the adoption of IEPs and widespread variability around the development, implementation, and evaluation of IEPs. As a consequence, there is inconsistency around the quality of instruction provided to children with additional needs and a lack of accountability for educational outcomes students achieve (Dempsey, 2012).

Education systems and schools are increasingly recognising the diversity in classrooms and are supporting both students and classroom teachers through the addition of classroom aides (Giangreco, Doyle, & Suter, 2011). This increase in the prevalence of and access to aides in regular classroom settings persists, despite the absence of a sound theoretical or empirical basis for their inclusion in the classroom (Giangreco, Suter, & Doyle, 2010). In one study Webster et al., (2010) found that while the provision of aide time may serve as a means of supporting teachers in the inclusion of children with additional needs in regular classrooms, there may be minimal resultant outcomes for the children themselves.

In summary, the prevalence of children with additional needs at the local level and within specific states in Australia has been well documented (Dempsey, 2004; 2007; 2011; 2012; Dempsey et al., 2002; Goldfield et al., 2012; Graham & Jahnukainen, 2011). However, few studies have examined the educational context of children with additional needs from a national perspective. While there is some disparity in the reporting of the incidence and prevalence figures regarding the representation of children with additional needs in Australian schools, there is nonetheless widespread ideological and legislative support for their inclusion and this support has translated into practice in the sense that the majority of these children are being educated in regular education settings. Various educational services and supports are provided to children with additional needs in Australian schools including the use of IEPs and specialised personnel support. While it is known that these supports are provided to some students, little is known regarding the nature of these supports, the context in which they are provided, and the specific populations of students to whom the supports are allocated.

**Purpose of this study**

This study seeks to provide an overall picture of the education of children with additional needs in their first years of school in Australia. It seeks to build on the work of Goldfield et al. (2012), by examining specific populations of children...
with additional needs: in particular children with learning difficulties in reading or mathematics, speech/language impairment, intellectual disabilities, sensory impairment, physical disabilities, emotional/behavioural problems, or autism spectrum disorder. Using data from Growing Up in Australia: The Longitudinal Study of Australian Children (Sanson et al., 2002) affords the opportunity to capture the educational experience of children with additional needs across Australia at one point in time. Specifically, this study provides descriptive information in relation to children with additional needs in Australian schools, their educational context, and the services provided to these children. It will provide an indication of the diverse representation of these students in Australian primary classrooms as well as an indication of current educational practice. Findings have the potential to inform policy and resourcing decisions for education providers of students with additional needs. The specific questions the study addressed were:

1. What proportions of children with specific forms of additional needs are typically represented in Australian schools?

2. What is the primary educational context in which children with various additional needs are educated in Australia?

3. What educational and/or specialist services do children with additional needs in Australian schools have access to?

METHOD

Sample and Participants

This research uses data from the Birth (B) cohort of Growing Up in Australia: the Longitudinal Study of Australian Children (LSAC). The LSAC study aims to provide a comprehensive understanding of Australian children’s social, emotional, physical and cognitive development in the context of their experience within their families, educational settings, and communities. The LSAC study will further our understanding of children’s development, inform social policy, and highlight opportunities for prevention and intervention in policy areas for children and families (Sanson et al., 2002). Data for the study children have been collected longitudinally bi-yearly across four waves from parents, childcare providers, teachers, and the children themselves. Using Medicare Australia’s enrolment database, 5107 children born between March 2003 and February 2004 were recruited to participate in the study as the B (infant) cohort. A two-stage clustered sample design was used to ensure the LSAC sample and the sample characteristics (state, postcode, sex, cultural background and socioeconomic status) were broadly representative of the population (Gray & Smart, 2008) as ascertained by the Australian Bureau of Statistics Census data in 2007. The data reported in this article relate specifically to the Wave 4 data collection period for children in the B (Infant) cohort in 2010, at approximately 6 years of age.

At Wave 4, the B cohort consisted of a nationally representative sample of 4242 Australian children. With the consent of parents, a 58-question survey was mailed to the classroom teacher of each of the study children for data completion and return. For the purpose of the current study, children were included in the sample when they had teacher-reported information regarding their educational context. The maximum sample size was 4163 children given the teacher report data that was available. The mean age of the study children was 6 years and 3 months with an age range between 6 and 8 years. Of these children, 51% of the sample were male, 49% were female.

Students in the sample population were grouped according to additional needs using one item from the Wave 4 Teacher Survey requesting the main reason the child requires additional assistance or specialised services. This item captures 11 categories of need. For the purpose of this
In this study, four categories were collapsed and recoded. Students who were identified as having English as a second language or who were gifted, were subsumed into a broader category of students classified as having ‘no disability’. Students with hearing or vision impairment were recoded into one category ‘sensory impairment’, in order to increase the sample size of this population of students. This recoding resulted in the creation of the following nine categories: learning difficulties in reading (n=235), learning difficulties in mathematics (n=85), speech/language impairment (n=85), emotional/behavioural problems (n=70), autism spectrum disorder (n=49), physical disabilities (n=15), intellectual disabilities (n=13), sensory impairment (n=11), and students without a disability (n=3600).

The authors note that given the small sample size of some of these categories of groupings, the generalisability of these findings is limited (Cohen, 1992). However, we consider maintaining the integrity of the groupings of students is paramount to providing both a detailed and more representative view of children across groupings of additional needs in the context of Australian schools.

Measures
Eleven LSAC-developed items from the LSAC Wave 4 Teacher Survey were used in this study. Teachers were required to report descriptive information in relation to their students, their educational context, and educational services. These items and their related response options included:

1. In what year/grade is the study child enrolled? (Year 4/Grade 4, Year 3/Grade 3, Year 2/Grade 2, Year 1/Grade 1, Pre-year 1, Not Assigned to a Grade)
2. Is the study child currently repeating this year/grade? (Yes/No)
3. What specialised services does this child receive? (Speech Therapy, Psychological Assessment, Learning Support, Behavioural Management Programs, Other)
4. Does this child currently have an Individualised Education Plan (IEP)? (Yes/No)
5. Is this school? (Government/Public, Catholic, or Independent/Private)
6. Which of the following best describes your school structure? (Primary with a preschool program attached; Primary only; Primary and secondary; Preschool, Primary and secondary; Ungraded school program; Special school)
7. Which category best describes your class organisation? (Single grade/year level; Multi-age/multi-grade; Ungraded special education class; Ungraded alternative school program)
8. How many children are present in your class for the main educational program?
9. How many children in the class have a diagnosed disability?
10. In a typical week, how many total hours do paid aides spend in your classroom?
11. Which of the following specialist staff does this class have access to? (Specialist learning support teacher).

Full information about the teacher survey and a copy of the questionnaire is available from the LSAC website (http://www.growingupinaustralia.gov.au/).

Data analysis
Teacher survey responses were analysed using the IBM SPSS statistics program, version 20 (IBM, 2011). Descriptive statistics, crosstabs, and one-way ANOVA (p < .05) were used to provide a picture of the representation of children with additional needs in Australian schools, a context for the settings in which children with additional needs were educated, and an overview of the services provided to these children. The independent variable, ‘additional need’, included nine groups: intellectual disability, sensory impairment, physical disability, speech/language
impairment, learning difficulty: reading, learning difficulty: mathematics, emotional/behavioural problems, autism spectrum disorder, and no disability. In the instance of a lack of homogeneity of variance, the Welch tests were interpreted. Follow-up tests evaluated pairwise differences among the means using Dunnett’s C as equal variances were not assumed. Alpha was adjusted to control for Type 1 error across each pairwise comparison. The magnitude of relationship between the independent and dependent variables was assessed using effect sizes, reported as eta squared ($\eta^2$), an index of the proportion of variance explained by a variable (Grimm & Yarnold, 2000). Scores ranged from 0 to 1, with .01 as small, .06 as medium, and > .14 as large (Green & Salkind, 2003).

RESULTS

Representation of Children with Additional Needs

In this study, 4163 children were included in the analysis. Of those, 3600 children were identified as having no disability (86.5% of the sample population) and 563 were identified as having some additional need (13.5% of the sample population). Of those students with an additional need, 235 had a learning difficulty in reading (5.6%), 85 had a learning difficulty in mathematics (2.0%), 85 had a speech or language impairment (2.0%), 70 had emotional or behavioural problems (1.7%), 49 had autism spectrum disorder (1.2%), 15 had a physical disability (0.4%), 13 had an intellectual disability (0.3%), and 11 had a sensory impairment (0.3%).

Teachers were asked to report whether the study child was repeating the current grade level. Of 3332 children, a total of 25 were repeating their current grade level, and of these, 12 children had an additional need. For children with additional needs, reasons provided for repeating the current grade level included academic learning difficulties (5), social or behavioural difficulties (5), the disability (1), and changed schools (1).

Educational Context

In this sample, the majority of children with additional needs in Australia were educated in regular school settings (99%). The remaining 1% of students, the majority of whom had autism spectrum disorder or an intellectual disability, were educated in special schools. Table 1 provides a frequency count for the educational setting students attended with reference to the child’s additional needs status. Students with additional needs were primarily educated in government schools (68%), rather than Catholic (18.5%), or private/independent schools (13.5%). In relation to the specific class structure 96% of children identified with additional needs were educated in the regular classroom and 4% were educated in a special education classroom. Again, special education classes catered most frequently to children with autism spectrum disorder (39%), an intellectual disability (26%), or speech/language impairment (17%).

Data for the number of children in the study child’s classroom for the main educational program were comparable for both children with additional needs and their typically developing peers. For children with additional needs, the mean number of children in their class was 22, with a range of 4 to 39 children reported by teachers. Likewise, for typically developing children, the mean number of children reported in their classrooms was 23, with a range of 4 to 40 children. However these findings were statistically significantly different, $F(8, 3267) = 14.46, p < .001, \eta^2 = .03$. Teachers indicated that class sizes were greater for typically developing children in comparison with those with intellectual disabilities (mean difference = 7.15), autism spectrum disorder (mean difference = 3.88) and speech/language impairment (mean difference = 1.70). No significant differences in class size were detected.
between children without a disability and children with a physical disability (mean difference = 0.80), learning difficulties in mathematics (mean difference = -0.25), sensory impairment (mean difference = 0.16), learning difficulties in reading (mean difference = -0.15), or emotional/behavioural difficulty (mean difference = 0.06).

Across categories of need and for typically developing children, 55% of children in this study were educated in classrooms in which one or more children with additional needs were educated beyond the study child. Statistically significant differences were found between groups for the number of children reported in the class with an additional need, $F(8, 3295) = 47.84, p < 0.001, \eta^2 = 0.10$. Teachers reported differences in the number of children with additional needs represented in the classroom of typically developing students in comparison with those classes with children with intellectual disabilities (mean difference = -4.29), autism spectrum disorder (mean difference = -2.80), sensory impairment (mean difference = -1.69), speech/language impairment (mean difference = -0.93), and emotional/behavioural difficulty (mean difference = -0.57). No significant differences in the number of children with additional needs in the class were reported by teachers of typically developing children and children with a physical disability (mean difference = -0.46), learning difficulties in mathematics (mean difference = -0.12), or learning difficulties in mathematics (mean difference = -0.10).

### Educational Services

Data for the proportion of children in the sample who were offered some form of specialist services by classification of need are reported in Table 2. This service may have been provided in or outside of the school. The number of children within each category is listed in the header cells of the table. Teachers identified 567 students (both with and without additional needs) who had access to specialist services. From this data, these figures are then further broken down to illustrate the percentage of students within each category of need that accessed a specific form of service. For example, there were 13 children in the total sample identified with an intellectual disability. Of those 13 children, teachers identified that

<table>
<thead>
<tr>
<th>Additional Need Status</th>
<th>Total</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3270</td>
<td>Regular School</td>
</tr>
<tr>
<td>Intellectual Disability</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Sensory Impairment</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Physical Disability</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Speech/Language Impairment</td>
<td>82</td>
<td>3</td>
</tr>
<tr>
<td>Emotional/Behavioural Problems</td>
<td>69</td>
<td>1</td>
</tr>
<tr>
<td>Maths</td>
<td>81</td>
<td>0</td>
</tr>
<tr>
<td>Reading</td>
<td>233</td>
<td>0</td>
</tr>
<tr>
<td>Autism Spectrum Disorder</td>
<td>39</td>
<td>8</td>
</tr>
</tbody>
</table>
all 13 students were provided some form of specialist service. Seventy-seven percent of children with an intellectual disability received some form of learning support, 54% were provided speech therapy, 23% received ‘other’ support, 15% received support with behaviour management and 0% undertook a psychological assessment. Data presented in the table for each category of need are not independent. For example, a child with an intellectual disability may access speech therapy, learning support, and behaviour support. Data in the ‘no disability’ category include children who have been identified as gifted, and children who have a poor understanding of Australian English or may be English Language Learners. Teachers reported 93% of students identified with an additional need were accessing some form of specialist service with the greatest proportion of children (65%) receiving some form of learning support.

In addition to the specialist services provided to the children, teachers were asked to indicate the number of hours per week in which aides were present in the study child’s classroom. Of those teachers of children with an identified additional need in this study that responded, 2% indicated they were provided no aide time, 44% indicated they received between 1-5 hours, 19% received 6-10 hours, 10% received 11-15 hours, and 7% received between 16-20 hours aide time per week. Mean hours aide time per week as indicated by classroom teachers was 4.8 hours. Statistically significant differences in teacher reporting of aide time were evident, \( F(8, 3847) = 19.01, p < 0.001, \eta^2 = 0.04 \). Teachers indicated receiving a lesser amount of aide time in classrooms for typically developing children in comparison with those classrooms with children with intellectual disabilities (mean difference = -12.96), autism spectrum disorder (mean difference = -7.65),

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Total</th>
<th>No Disability</th>
<th>Autism Spectrum Disorder</th>
<th>Emotional/ Behavioural Problems</th>
<th>Maths</th>
<th>Reading</th>
<th>Speech/ Language Impairment</th>
<th>Physical Disability</th>
<th>Sensory Impairment</th>
<th>Intellectual Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>n=328</td>
<td>n=2746</td>
<td>n=40</td>
<td>n=40</td>
<td>n=40</td>
<td>n=222</td>
<td>n=85</td>
<td>n=85</td>
<td>n=13</td>
</tr>
<tr>
<td>Special Service</td>
<td>100%</td>
<td>(n=320)</td>
<td>(n=266)</td>
<td>(n=40)</td>
<td>(n=40)</td>
<td>(n=38)</td>
<td>(n=216)</td>
<td>(n=216)</td>
<td>(n=216)</td>
<td>(n=11)</td>
</tr>
<tr>
<td>Learning Support</td>
<td>77%</td>
<td>(n=249)</td>
<td>(n=205)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=183)</td>
<td>(n=123)</td>
<td>(n=123)</td>
<td>(n=123)</td>
<td>(n=12)</td>
</tr>
<tr>
<td>Support</td>
<td>54%</td>
<td>(n=172)</td>
<td>(n=137)</td>
<td>(n=22)</td>
<td>(n=22)</td>
<td>(n=105)</td>
<td>(n=68)</td>
<td>(n=68)</td>
<td>(n=68)</td>
<td>(n=9)</td>
</tr>
<tr>
<td>Speech</td>
<td>54%</td>
<td>(n=172)</td>
<td>(n=137)</td>
<td>(n=22)</td>
<td>(n=22)</td>
<td>(n=105)</td>
<td>(n=68)</td>
<td>(n=68)</td>
<td>(n=68)</td>
<td>(n=9)</td>
</tr>
<tr>
<td>Therapy</td>
<td>2%</td>
<td>(n=7)</td>
<td>(n=6)</td>
<td>(n=1)</td>
<td>(n=1)</td>
<td>(n=1)</td>
<td>(n=1)</td>
<td>(n=1)</td>
<td>(n=1)</td>
<td>(n=1)</td>
</tr>
<tr>
<td>Behaviour</td>
<td>2%</td>
<td>(n=7)</td>
<td>(n=6)</td>
<td>(n=1)</td>
<td>(n=1)</td>
<td>(n=1)</td>
<td>(n=1)</td>
<td>(n=1)</td>
<td>(n=1)</td>
<td>(n=1)</td>
</tr>
<tr>
<td>Support</td>
<td>0%</td>
<td>(n=0)</td>
<td>(n=0)</td>
<td>(n=0)</td>
<td>(n=0)</td>
<td>(n=0)</td>
<td>(n=0)</td>
<td>(n=0)</td>
<td>(n=0)</td>
<td>(n=0)</td>
</tr>
<tr>
<td>Assessment</td>
<td>23%</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
</tr>
<tr>
<td>Other</td>
<td>23%</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
<td>(n=32)</td>
</tr>
</tbody>
</table>
sensory impairment (mean difference = -7.62), learning difficulties in mathematics (mean difference = -3.94), emotional/behavioural difficulty (mean difference = -3.83), learning difficulties in reading (mean difference = -3.51), speech/language impairment (mean difference = -3.50), and physical disability (mean difference = -2.90).

In this study 367 children (11% of the sample population), had an IEP. Table 3 reports the proportion of children in the sample with an IEP by their additional need status. Of the 559 children with an additional need, 217 had an IEP. This represents 38.8% of children with additional needs receiving some form of specialised programming for an identified need. In addition teachers reported that 150 children (5.4%) who were identified as having ‘no disability’ in the study also had an IEP.

**DISCUSSION**

The aim of this study was to provide a picture of the educational context and services provided to children with additional needs in their first years of school in Australia. Specifically it sought to report on the representation of children with specific forms of additional needs in Australian schools, their educational contexts and the types of services that these children access.

**Educational Context**

In this study children with additional needs in Australia were primarily educated in government schools. These findings are consistent with those from prior research (Dempsey, 2011; 2012). Data from this study reflect the shift in policy within systems toward children with additional needs being educated in regular education settings, with 99% of children with additional needs receiving their education in regular schools, and 96% educated in regular classrooms. Furthermore, in 55% of reported instances, teachers reported that in their classrooms, additional children with additional needs were educated beyond the study child.

These findings may suggest that the shift in the legislative and policy framework over the past decade in Australia has translated into the practice of educating children with additional needs in the least restrictive environment. This is considered a positive outcome for children with additional needs

<table>
<thead>
<tr>
<th>Additional Need Status</th>
<th>Total</th>
<th>IEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Disability</td>
<td>2769</td>
<td>55%</td>
</tr>
<tr>
<td>Autism Spectrum Disorder</td>
<td>49</td>
<td>84%</td>
</tr>
<tr>
<td>Emotional/Behavioural Problems</td>
<td>69</td>
<td>26%</td>
</tr>
<tr>
<td>Maths</td>
<td>252</td>
<td>28%</td>
</tr>
<tr>
<td>Reading</td>
<td>85</td>
<td>32%</td>
</tr>
<tr>
<td>Speech/Language Impairment</td>
<td>85</td>
<td>39%</td>
</tr>
<tr>
<td>Physical Disability</td>
<td>15</td>
<td>47%</td>
</tr>
<tr>
<td>Sensory Impairment</td>
<td>11</td>
<td>55%</td>
</tr>
<tr>
<td>Intellectual Disability</td>
<td>13</td>
<td>100%</td>
</tr>
</tbody>
</table>
and their families. Interestingly, while data from this study reflect the reduction in enrolment of students with additional needs in specialised placements as reported in other studies, the data from this study do not reflect trends in the pattern of enrolment of children with behavioural difficulties or emotional disturbance in segregated school placements as reported in other studies (Dempsey, 2004; 2007; Dempsey et al., 2002). Given findings from other studies reported prevalence figures for specific states within Australia, this data provides a clearer look at overall trends across the nation. Data from this study indicate that children with autism spectrum disorder are most likely to receive instruction in a segregated, special class/school environment.

Data from this study reflect the evidence-based trend to reduce class size in order to improve outcomes for vulnerable populations of students (Bosworth, 2011). Class sizes were significantly smaller for students with an intellectual disability, speech/language impairment, or autism spectrum disorder. These findings were consistent with the greater representation of these groups of students in special education classes. Class sizes for students in all other categories of additional need were comparable to those of typically developing students.

Given that less than 1% of the entire sample population and 2% of children with additional needs were retained, it would appear that repeating a current grade level is not widespread practice for either typically developing children or children with additional needs in Australia. This finding is encouraging given the converging research evidence that suggests the practice of grade retention does not close the gap in achievement and is related to negative school adjustment, poor attendance, increased behavioural problems, and later school withdrawal (Jimerson & Ferguson, 2007). These data indicate the practice of retention in Australian schools is lower for both children with additional needs and their typically developing peers in comparison to prevalence figures reported in the US, France, Spain, Belgium, Germany, and The Netherlands (Goos, et al., 2013; Tingle et al., 2012).

**Educational Services**

Findings from this study are consistent with those of Goldfield et al. (2012) in that 13.5% of students within the sample (children with and without additional needs) required and were receiving some form of access to specialist services. Of those students identified with an additional need, 93% were accessing some form of specialist support, although it is unclear as to whether this support was provided in the context of school. In most instances, this support was aligned with the most prevalent forms of need (learning difficulty in reading or mathematics and speech or language impairment) and students’ identified area of need, with a high prevalence of students accessing learning support, ‘other’ services, or speech therapy. Detail regarding the frequency, intensity, duration, content, quality, mode of delivery, and nature of these services was not provided. These findings are consistent with those of McLeod and McKinnon (2007) in terms of the number of children receiving services and the form of services provided. In this study children with either a sensory impairment or physical disability were least likely to receive specialist support.

In addition to specialist services, all but 2% of teachers reported receiving aide support in their classroom each week. Teachers of children with intellectual disabilities, sensory impairment, and autism spectrum disorder reported receiving a higher allocation of aide time in comparison to teachers of typically developing students. The prevalence of support time allocated in classrooms in which children with additional needs are educated would likely be perceived as positive by classroom teachers and may assist teachers in
maintaining positive attitudes toward inclusion in their classrooms (Webster et al., 2010). However, given 55% of teachers reported multiple students with additional needs in their classroom, the mean time allocation of 4.8 hours per week may be insufficient to enable classroom teachers to support the needs of multiple students with additional needs. These data are consistent with ongoing teacher concerns regarding a lack of support to ensure the successful inclusion of children with additional needs in regular classrooms (McNally, Cole, & Waugh, 2001).

Similar to findings from prior research (Dempsey, 2012; McLeod & McKinnon, 2007), the majority of students with an identified learning need were not provided an individual education program. Trends in this data reflect that in Australia, there is no requirement in the legislation, standards, or state policies for education providers to individually plan for students with additional needs (Commonwealth Department of Education, Science and Training, 2005; Commonwealth Government of Australia, 1992; Dempsey, 2012). Interestingly, 150 students (5.4% of the LSAC sample population) were identified by their classroom teacher as having an IEP, yet they had no identified disability. Given that only 39% of the students formally identified with additional needs were provided with an IEP it would appear that the specific learning needs, instructional pedagogies and programs, and evidence of learning outcomes of many students with additional needs remain undocumented. These data are troubling given the lack of accountability for the educational programming of these students (Dempsey, 2012).

In summary, data from this study are encouraging in terms of the practices employed in the education of children with additional needs in Australian schools. Children with additional needs are educated in regular schools and classrooms, and in many instances they have access to specialist services, learning support, aide time, and IEPs. While educational services are provided in the context of the early school years, data from this study reveal significant variation around access to these services and the categories of need for which these services are provided. Children with higher support needs such as autism spectrum disorder and intellectual disability appear to access a greater proportion of services and individualised programming in comparison to students identified with different additional needs. For those other students, access to services, individual programming, and learning support is more variable.

LIMITATIONS AND FUTURE RESEARCH

Limitations of using data from a large multi-faceted study such as LSAC apply to this study. This study provides a picture of the representation and services provided to children with additional needs in Australia at one point in time and cannot be used to make broader generalisations over time. Teacher report provided the primary indicator of student additional need status, the educational context, and services provided to children with additional needs. No additional objective data was sourced in relation to the variables of interest.

While data from this study provide an indicator of the educational context and the services provided to children with additional needs in Australian schools, additional research examining teacher attitudes and student outcomes on a variety of measures is required to establish relative progress in relation to the education of children with additional needs in Australia.

CONCLUSION

The overall goal of inclusive education is that “people with disability achieve their full potential through their participation in an inclusive, high-quality education system that is responsive to their needs” (Commonwealth of Australia, 2011). Descriptive findings from this study suggest
that we have come a long way as far as the representation of children with additional needs in regular schools is concerned, and that we are moving forward in relation to National Disability Strategy (2010-2020) targets regarding the proportion of children with additional needs in mainstream schools (Commonwealth of Australia, 2011, pp. 53-55). These findings also suggest there is still much to be achieved in terms of defining the level of support specific students require and operationalising this support in practice through programs and related funding. Additional teacher education around pedagogies, programs and practices may be required to ensure the successful inclusion of children with additional needs in the regular school and classroom environment and to ensure students progress to their optimum level given the primary environment in which they are educated.

REFERENCES


Giangreco, M. F., Suter, J. C., & Doyle,


Smyth King, B. (2012, April). Every student, every school: Learning and support. Presentation at the NSW Department of Education and Communities, Sydney Australia.

