

The Academic and Social Profiles of Pupils with Attention Deficit Hyperactivity Disorder (ADHD) and Mild General Learning Disability (MGLD) in Mainstream Education in the Republic of Ireland

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Abstract

Several gaps exist in the standardised assessment of pupils with Special Educational Needs and Disabilities (SEND) in the Irish mainstream education context at the point of transition from primary to post-primary school. These gaps may lead to a lack of adequate focus on the continuity of resources at this timepoint. The current study examined academic and social attainment in three cohorts of pupils in Ireland (Attention Deficit Hyperactivity Disorder, ADHD, $N=12$; Mild General Learning Difficulties, MGLD, $N=12$; and typically-developing individuals, $N=11$). Four standardised measures were used in a non-experimental design to assess cognitive attainment (Wide Range Achievements Test 4, WRAT-4), learning competency and self-concept (Myself as a Learner Scale, MALS; the Burnett Self Scale, BSS), and perceived control (Multidimensional Measure of Children's Perception of Control scale, MMCP) across the three groups prior to transition to post-primary school. Results indicated that the typically-developing pupils performed strongest on attainment followed by those with ADHD and MGLD. While the latter two groups were weaker on attainment, neither group perceived of themselves as weaker. The results are discussed within the context of formal assessment for pupils with SEND in mainstream education and how these diverse outcomes may have implications for policy.

Keywords: Special Education Needs, Inclusion, Outcomes, Cognitive abilities

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The process of moving pupils with Special Educational Needs and Disabilities (SEND) from segregated to mainstream settings has been central to educational policy in Ireland since 1999. This policy context has been strengthened and supported by legislation, which has secured the rights of pupils with SEND to educational supports and resources that will, in principle, enable them to reach their full academic and social potential. Specifically, educational policy has been underpinned by the National Disability Strategy (2004), the Education for Persons with Special Educational Needs Act (EPSEN, 2004), and the Disability Act (2005). Whilst Ireland also adopted the principles of the *Salamanca Statement and Framework for Action on Special Educational Needs* (UNESCO 1994), a series of litigation cases further promoted access to specific educational provision, particularly for children with severe and profound disabilities. These legal challenges were based on Article 42 of the Irish Constitution which guarantees an ‘absolute right’ to appropriate primary education (p. 59). For example, in the O’Donoghue (1993) case, the State’s assessment of the child’s needs from a medical perspective did not satisfy the needs from an educational perspective, thereby denying the child’s constitutional right to ‘free primary education’.

Notwithstanding the contribution of previous legislation, the enactment of EPSEN (2004) had a particularly profound impact on the development of educational policy, provision and practice for pupils with SEND. Specifically, the Act provided the first statutory definition of SEND as: “restriction in the capacity of the person to participate in and benefit from education on account of an enduring physical, sensory, mental health or learning disability, or any other condition which results in a person learning differently from a person without that condition (p. 6)”. As well as incorporating a wider range of pupils with disabilities than previous definitions, this broader approach highlights the fact that many children learn differently from their typically-developing counterparts. Although this fact is bolstered by extensive empirical evidence (e.g. Törmänen & Roebbers, 2018; Hornby, 2015),

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provision in this regard places considerable responsibilities on schools to deliver appropriate supports for pupils with SEND in both mainstream and special educational settings (Meaney, Kiernan, & Monahan, 2005), all of which are overseen by the newly established National Council for Special Education (NCSE).

Two common problems surround the provision of appropriate education for pupils with SEND. First, the term SEND still has various uses in different contexts, some of which do not capture the breadth of the continuum along which pupils' needs lie. For example, Banks and McCoy (2011) proposed that some government agencies in Ireland continue to employ the previous definition of SEND proposed by the SERC (1993) report, whilst others have adopted EPSEN's definition. Second, although the strong focus on inclusive education is laudable, it does not necessarily facilitate good educational or related outcomes (for a full review, see Ruijs, Peetsma, & van der Veen, 2010). For example, Humphrey, Wigelsworth, Barlow and Squires (2013) reported that pupils with SEND in mainstream education display 'attainment gaps' in Maths, English and Science, with only 16.5% achieving the overall level of academic achievement that was expected of them. It is not surprising, therefore, that these individuals go on to experience higher unemployment (Asghar & Burchardt, 2005), lower incomes (Rouse & Florian, 2010), lower self-esteem (Scanlon, McEntegart, Barnes-Holmes, Barnes-Holmes & Stewart, 2014) and less participation in society (World Health Organisation, 2011) than their typically-developing counterparts.

Within any educational context, academic outcomes and educational supports can only be evaluated with the use of appropriate measures of performance (EADNSE, 2007). The Programme for International Assessment (PISA) has become the principle source of data on the performance and quality of educational systems, as measured by student achievement (Smith & Douglas, 2013). Unfortunately, pupils with SEND may be excluded from participating in relevant testing, hence reducing the amount of evidence available on these

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pupils. Indeed, Douglas et al. (2012) have argued that national assessments should include *all* students, with appropriate accommodations.

The Irish context for measuring educational attainment contrasts sharply with the international landscape, especially the United States and the UK. In the former, Individual Education Plans (IEPs) are compulsory for all pupils with SEND and in the latter these pupils are each allocated a unique pupil number (UPN), providing information on progress throughout their educational career. The gap in the collection of this information on pupils with SEND in Ireland may be attributed, in part, to the fact that many aspects of EPSEN (2004) are still to be fully enacted (including the compulsory development of IEPs) and even the new programme for literacy (DES, 2011a) with its special emphasis on outcomes for pupils with SEND remains bereft of proposals on how information will be measured (Douglas et al., 2012).

Given the gaps in the assessment of pupils with SEND in the Irish context as noted above, it is hardly surprising that there is little formal information on the transition of pupils, such as those moving from primary to post-primary school. For example, Douglas et al. (2012) reported the use of around 26 different tests presented to pupils at this juncture (some of which are school-based and thus not standardised). The key purposes of these tests appear to be the identification of students who may require additional support (Looney, 2006) and the allocation of pupils to specific class groups (Smyth, McCoy, & Darmondy, 2004). For pupils with SEND in particular, this diversity and lack of standardisation in transition assessments may lead to a lack of essential information and adequate focus on the continuity of resources at this critical junction in the lives of young people (Barnes-Holmes, Scanlon, Desmond, Shevlin, & Vahey, 2012; Sirsch, 2003).

The Current Study

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The current study was conducted as a part of a wider research project on the transition of pupils with SEND from primary to post primary school in Ireland and specifically sought to examine the academic profiles of a sample of these individuals. The study included three groups of pupils. One group contained individuals who had received a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD). A second group contained individuals who had received a diagnosis of General Learning Difficulties (MGLD). A third group contained individuals who had no formal diagnosis of SEND nor showed any evidence of same, and were thus deemed to be typically-developing counterparts for the other two groups. In order to provide a comprehensive profile of each child and group, a series of standardised psychological and psychometric measures were used to assess academic attainment, perceptions of learning capabilities, and self-concept indices at a designated time point prior to their transition to post-primary school. A second aim of the study was to determine potential differences within and across the three groups on this battery of measures.

Method

Design

The current non-experimental design was entirely assessment-based and used only quantitative standardised measures to determine potential differences in various aspects of cognitive attainment and self-perceptions of this attainment among three groups of pupils, two of which had formal diagnoses. We employed correlational analyses, analyses of variance and parametric analyses to determine the presence and extent of differences among the scores obtained with the three groups on the various measures we presented.

Participants

Thirty-five pupils were recruited through direct contact with primary schools in Ireland, with written parental and participant consent obtained in all cases prior to participation. All pupils were in 6th Class (final year of primary education) and ranged in age

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from 11 years to 14 years, 5 months. Eleven of the pupils (6 females and 5 males) were deemed to be typically-developing, based on independent assessments of their intellectual functioning and no evidence of a prior history of behavioural or learning difficulties. The remaining 24 pupils all presented with an independently assessed SEND. Specifically, 12 (1 female and 11 males) had a diagnosis of ADHD but were categorised as within the “typical” range of intellectual functioning. In contrast, the remaining 12 (6 females and 6 males) all had a diagnosis of MGLD and were categorised as below the typical range of intellectual functioning.

Ethical Considerations

All procedures performed in the studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Specifically, an ‘ethics as process’ approach was employed for the current research (Ramcharan & Cutcliffe, 2001). That is, all participants were given the opportunity to consent to participate, take breaks, and withdraw from participation at any point. Before commencing, researchers checked the comprehension of what participation entailed by encouraging participants to summarize what was required in their own words and provided additional time to discuss this if needed.

Setting

All aspects of the study were conducted in a quiet room in each participant’s school, with the Researcher and a familiar Special Needs Assistant (SNA) present at all times. All participation was on an individual basis.

Apparatus and Materials

The study involved the presentation of four standardised quantitative measures which assessed: academic achievement (the Wide Range Achievements Test 4, WRAT-4);

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perceptions of the self as a learner (Myself as a Learner Scale, MALS); self-esteem (Burnett Self Scale BSS); and perception of control over behaviour (Measure of Children's Perception of Control scale, MMCP). Although there are many possible measures that could have been incorporated into the current research, we selected specific tools that were deemed well suited to the broad assessment of academic, social and cognitive variables that may contribute to the learning experience of the child (Barnes-Holmes et al., 2012). All of the measures we selected were well standardised and we remained mindful during our selections to incorporate measures that would not be too tiresome or arduous for our three groups of pupils to complete. We also selected measures that could be delivered ethically by a psychologist without further specialised training.

The WRAT-4. The WRAT-4 comprises four subscales: Maths, Spelling, Reading and Sentence Comprehension (Wilkinson & Robertson, 2006). The Maths subscale comprises two components. Fifteen items assessed oral maths (counting and solving oral problems) and 40 items assessed math computation (number, symbol recognition and performing written computations). Total Maths score is a summary of the two subscales (maximum=55). The Spelling subscale also comprises two components: 15 dictated letters and 42 dictated words of increasing difficulty, which the participant is asked to spell aloud. Total Spelling score is a summary of the two subscales (maximum=57). The Reading subscale also comprises two components: 15 dictated letters and 55 dictated words of increasing difficulty, which the participant is asked to read. Total Reading score as a summary of the two subscales (maximum=70). The Sentence Comprehension subscale measures the ability to comprehend ideas and information across 50 items of increasing difficulty. A participant's starting point on the Sentence Comprehension subscale as determined by their Total Reading score. A total Sentence Comprehension was the sum of all correct items (maximum=50).

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The BSS. The BSS is a 40-item self-report measure of a pupil's self-concept, measured across nine subscales (Burnett, 1994). Each scale comprises five sentences, with which participants do or do not identify themselves (e.g. "I really like the way I look"; "I like the way I look"; "I sometimes like the way I look"; "I do not like the way I look"; and "I really do not like the way I look"). The subscales include: Physical Appearance (PA); Physical Ability (PAB); Relationship with Peers (RP); Relationship with Mother (RM); Relationship with Father (RF); Reading (Read); Maths; (M); Learning (Learn); and global self-esteem (SE). Eight subscales contained four items, while SE contained eight. Whilst each subscale receives a total score, a total BSS score can also be calculated based on the sum of the subscale scores.

The MALS. The MALS is a 20 item self-report measure of self-perceptions regarding learning competency (Burden, 1998). Each item consists of a statement (e.g. "I'm good at doing tests") which participants rate as true or otherwise on a 5-point Likert scale, ranging from 1=definitely agree about me to 5=strongly disagree. Scoring on each item ranges from 1-5, with a total MALS score ranging from 20-100.

The MMCPC. The MMCPC is a 48 item self-report measure of perceived control (Connell, 1985). The scale comprises three subscales for perceived sources of control: Internal (I), Powerful others (P) and Unknown (U). These sources of control are assessed for both success and failure across four behavioural domains: Social (S), Cognitive (C), Physical (P) and General (G). Consider the following Internal-General item on failure, "When I am unsuccessful it is usually my own fault". Participants rate the truth or otherwise of each statement on a 4-point Likert scale from 1=Not at all true to 4=Very true. Scoring on each item ranges from 1-4 for each of the four domains (i.e. 12 subtotals with a maximum score of 16).

Procedure

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All participants completed the study in a single session, the duration of which varied across pupils depending on their individual ability and the number of breaks required between the measures. All participants were presented with all four measures in the same order (WRAT-4; BSS, MALS and MMCPC). At the beginning of the study, participants were provided with extensive instructions regarding completion of the measures, but no influence (except prompts suggested by the guidelines of the measures) was exerted on any responses. The Researcher remained seated beside each participant throughout all aspects of the research.

Results

Data from the three groups on each of the four measures (WRAT-4, BSS, MALS and MMCPC) were collated and subjected to data analyses. Descriptive statistics, analyses of variance (ANOVAs) and post hoc tests (i.e. independent *t*-tests) were carried out for each of the four measures. Correlational analyses among all of the subscales on each of the four measures were carried out within each of the three groups of pupils.

WRAT-4 Data

On each of the three subscales (i.e. Maths, Spelling and Sentence Comprehension), the typically-developing pupils scored consistently higher than those with ADHD and those with MGLD (see Figure 1, lines indicate max. score on each subscale). Of the two latter groups, pupils with MGLD scored lowest on all three subscales. A repeated measures ANOVA was conducted with WRAT-4 subscale scores as the dependent variable and group as the factor. There was a highly significant main effect for group ($F=27.711, p < 0.0001$) and a main effect for score ($F=25.228, p < 0.0001$), but no interaction effect ($F=2.199, p > 0.05$).

INSERT FIGURE 1 HERE

Post-hoc tests, in the form of nine independent *t*-tests, investigated the subscale differences across the groups. There were significant differences among each of the three

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groups on both Maths (all $ps < 0.01$) and Spelling (all $ps < 0.05$), with the typically-developing children significantly highest and those with MGLD significantly lowest. On Sentence Comprehension, the typically-developing pupils were significantly superior to the other two groups (both $ps < 0.0005$), but the latter did not differ significantly from each other ($p > 0.05$).

BSS Data

The typically-developing pupils had the highest mean BSS total score ($M=37.518$, $SD=3.120$), followed by pupils with MGLD ($M=35.829$, $SD=3.875$) and finally those with ADHD pupils ($M=34.954$, $SD=4.323$). However, there were other differences on the subscales, of which the typically-developing pupils scored highest on six (i.e. PAB, RP, RM, RF, Reading, and Learning, see Figure 2). While the pupils with ADHD scored highest on PA and Maths, the pupils with MGLD scored highest on self-esteem.

INSERT FIGURE 2 HERE

A repeated measures ANOVA (with score as the dependent variable and group as the factor) indicated no main effect for group ($F=1.323$, $p > 0.05$), although both the main effects for score ($F=5.174$, $p < 0.0001$) and the interaction ($F=1.940$, $p < 0.01$) were significant. Post-hoc tests, in the form of 27 independent t-tests, showed significant superiority for pupils with ADHD over typically-developing pupils on Physical Appearance (PA, $t=-2.023$, $p < 0.05$) and significant superiority for both typically-developing pupils ($t=2.621$, $p < 0.05$) and those with MGLD ($t=-2.059$, $p < 0.05$) over those with ADHD on Relationship with Mother (RM), all other $ps > 0.05$.

MALS Data

On the MALS, the typically-developing pupils scored highest, followed by those with ADHD and finally those with MGLD (see Figure 3). Three independent t-tests indicated no differences between the three groups (all $ps > 0.05$).

INSERT FIGURE 3 HERE

MMCPC Data

Interestingly, on calculations of overall mean MMCPC scores pupils with MGLD scored highest ($M=34.250$, $SD=5.241$), followed by typically-developing pupils ($M=30.045$, $SD=3.971$) and finally those with ADHD ($M=27.000$, $SD=4.429$). Indeed, pupils with MGLD scored highest on nine of the 12 subscales (see Figure 4), with the exception of IS, IC, IG, on which the typically-developing pupils scored highest.

INSERT FIGURE 4 HERE

A repeated measures ANOVA (with score as the dependent variable and group as the factor) indicated significant main effects for group ($F=7.529$, $p < 0.01$), score ($F=14.421$, $p < 0.0001$) and the interaction ($F=2.042$, $p < 0.01$). Post-hoc tests, in the form of 36 independent t-tests, showed that pupils with MGLD scored significantly higher than typically-developing pupils on: US ($t = -2.680$, $p < 0.05$); PS ($t = -3.101$, $p < 0.01$); UP ($t = -2.744$, $p < 0.01$); and UC ($t = -3.343$, $p < 0.01$). While these two groups also differed significantly on IC ($t = 2.166$, $p < 0.05$), the typically-developing pupils actually scored higher (all other $ps > 0.05$). Pupils with MGLD also scored significantly higher than pupils with ADHD on: UC ($t = -3.278$, $p < 0.01$); UP ($t = -3.113$, $p < 0.01$); IG ($t = -2.779$, $p < 0.01$) and UG ($t = -2.070$, $p < 0.05$; all other $ps > 0.05$). Typically-developing pupils also scored significantly higher than pupils with ADHD on: IC ($t = 3.098$, $p < 0.01$) and IG ($t = 3.658$, $p < 0.001$; all other $ps > 0.05$).

Correlations

In order to investigate potential predictors of behaviour on each of the measures, data collected from the pupils with MGLD and ADHD on the four measures (i.e. BSS, MMCPC, MALS and WRAT-4) were placed into two correlation matrices. For pupils with MGLD, the MALS (Myself as Learner) overall score correlated negatively with Internal Social control ($r = -0.623$, $p < 0.05$) and Powerful others Cognitive ($r = -0.696$, $p < 0.01$) on the MMCPC.

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Relationship with Father from the Burnett Self Scales correlated negatively with Unknown Cognitive control from the MMCPC ($r=-0.726, p <0.01$), as did Relationship with Mother with Powerful others Social ($r=-0.657, p <0.01$).

For pupils with ADHD, the MALS (Myself as Learner) score correlated negatively with Physical Appearance on the BSS ($r=-.731, p <0.05$) and correlated positively with Internal Cognitive ($r=0.621, p <0.05$), Internal Social ($r=0.744, p <0.01$) and Internal General control ($r=0.588, p <0.05$) on the MMCPC. Internal Social control correlated positively with Learning on the BSS ($r=0.705, p <0.01$). Powerful others Social control on the MMCPC correlated negatively with Reading ($r=-0.568, p <0.05$) and Learning ($r=-0.706, p <0.01$) on the BSS and Spelling on the WRAT-4 ($r=-0.722, p <0.01$). Powerful others Cognitive control on the MMCPC correlated negatively with Spelling on the WRAT-4 ($r=-0.666, p <0.01$), whereas Internal Cognitive control on the MMCPC correlated positively with Learning on the BSS ($r=0.730, p <0.01$). Internal Physical control on the MMCPC correlated positively with Learning on the BSS ($r=0.659, p <0.01$) and Self-esteem on the BSS ($r=-0.626, p <0.05$), whereas Unknown Physical control on the MMCPC correlated negatively with Physical Ability on the BSS ($r=-0.581, p <0.05$). Internal General control on the MMCPC correlated negatively with Maths ($r=-0.638, p <0.05$), positively with Learning ($r=0.680, p <0.01$) and positively with Self-esteem, all on the BSS ($r=0.580, p <0.05$), whereas Powerful others General correlated negatively with Maths ($r=-0.786, p <0.05$) and Spelling on the WRAT-4 ($r=-0.655, p <0.01$).

Summary of Results

On the WRAT-4 measure of cognitive attainment, the typically-developing pupils produced the strongest overall performance, followed by those with ADHD and finally those with MGLD. In spite of these different academic performance outcomes, neither pupils with ADHD nor MGLD perceived themselves as having weak performances on Reading, Maths,

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or Learning, as measured by the BSS, or learning capabilities as measured by the MALS. On the BSS measure of self-concept, both pupils with ADHD and MGLD performed similarly to the typically-developing pupils (interestingly this groups scored lowest on Physical Appearance), with the exception that those with ADHD indicated poorer Relationships with Mother. As a measure of perceptions of control, the MMCP data indicated that pupils with MGLD attributed more control to unknown sources than both the typically-developing pupils and those with ADHD. A range of significant correlations also highlighted potential relationships among subscores across measures, but only for pupils with ADHD and MGLD.

Discussion

As a measure of cognitive abilities with regard to Maths, Spelling and Sentence Comprehension, the WRAT-4 outcomes held some surprises. Although the pupils with ADHD had been independently assessed as presenting with typical academic attainment, they scored significantly lower than their typically-developing counterparts on all three subscales. In contrast, the WRAT-4 outcomes showing significantly poorer performances for pupils with MGLD compared to the two other groups was consistent with their independent assessments as falling below the typical range of academic attainment.

Interestingly, the outcomes recorded for the pupils with MGLD on both the BSS and the MALS suggested that these children did not recognise the presence of any cognitive deficits. That is, on the BSS these pupils perceived themselves to be as competent on Maths, Reading and Learning as the other two groups, and a similar pattern emerged for perceptions of learning capabilities on the MALS. In spite of these perceptions of cognitive and social competence, pupils with MGLD did attribute significantly more social, cognitive and general control to others and unknown sources than their typically-developing counterparts and occasionally more than the pupils with ADHD.

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A number of interesting correlations also arose from the data. For pupils with MGLD, the greater attribution of cognitive control to others correlated with lower perceptions of self as a learner. For pupils with ADHD, the greater attribution of social and physical control to others correlated with lower perceptions of competence on reading, learning, maths and spelling. Indeed, these latter perceptions of academic competence also correlated with their perceptions of their general competence as learners. For this group, greater attribution of internal control regarding physical abilities and general abilities also correlated with perceptions of the self as a more competent learner and higher self-esteem.

The use of a range of standardised measures, such as that employed here, often yields such an array of data that it is at times difficult to summarise the findings. However, three general conclusions began to emerge. First, the actual cognitive attainment data indicated that pupils with ADHD were significantly weaker than their typically-developing counterparts, although both of these groups were significantly stronger than their counterparts with MGLD. For those with ADHD, this flew in the face of their independent assessments, although it was entirely consistent with those undertaken with the pupils with MGLD. Second, the data taken from the self-perception measures showed a number of areas in which neither pupils with ADHD nor MGLD appeared to fully recognise these weaker relative performances. In short, both groups perceived themselves to be competent learners on many fronts. Third, it was only in the correlational analyses that relationships began to emerge between perceived weak cognitive performances and primarily the attribution of cognitive and social control to others and unknown sources, especially with the pupils with ADHD. That is, pupils with ADHD who perceived themselves to have academic weaknesses were more likely to attribute cognitive and social control to others, rather than themselves.

The current study highlights possible disparities in measures of cognitive attainment when different measures are employed. For instance, it is not clear which measure had been

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used to categorise pupils with ADHD as within the typically-developing range. Nonetheless, this disparity highlights the importance of using a standardised and extensive measure in all groups of children. Given the importance attributed to these academic outcomes and the extent to which the provision of educational support may depend upon them, the need for uniformity in cognitive attainment is very clear.

The need for uniformity in the measurement of academic attainment presupposes the importance of subjecting all pupils to these measures. While it is important to recognise and accommodate all types of learners, especially under measurement conditions, it is nonetheless important to have quantitative information on a pupil's cognitive competence. The lack of such evidence not only makes it difficult to provide appropriate educational supports and make realistic predictions of future attainment, it also renders it almost impossible to evaluate the efficacy of supports or interventions that are provided (Scanlon et al., 2014; Smith & Douglas, 2013; Yeo & Moore, 2003). Indeed, this runs counter to the existing policy context in which schools are accountable for pupil outcomes. This accountability seems impossible to manage if all pupils are not provided with standardised testing, such as exists in the US and the UK.

SEND is a single grouping, but even only the cognitive attainment data here show that they can differ considerably. The current paper paid limited attention to social or organisational factors, both of which heavily influence educational performances. These provide more possibilities for there to be variations in this broad group of children. So, SEND is perhaps best thought of as a series of continua, such as a cognitive attainment one (with its own divisions for example in maths and English), self-management, social competence, etc. The categorical model in current form is too broad, it needs to be made more specific by identifying the target domain to be measured and this should then be measured in a systematic and uniform way across all groups of children as appropriate.

Conclusions

The assessments reported in the current study were conducted at a time when the groups of children in question were anticipating the move from primary to post-primary school in the Republic of Ireland. As a result, it is useful to extrapolate any implications our outcomes may have for the process of transition for these samples, given the international dearth of empirical evidence on transitions for pupils with SEND generally. It must be recognised that the evidence that exists for this group in transition does suggest that they do not *overall* experience a less successful transition outcome than their typically-developing peers (Evangelou et al., 2008). On balance, certain factors may make at least some of these pupils more vulnerable to poor transitions or negative transition experiences (see Maras & Aveling, 2006; Tur-Kaspa, 2002). These factors in particular include low academic attainment, which is in itself a risk factor for transition stress and anxiety (West et al., 2008).

It is widely accepted that attainment at any one educational level is strongly influenced by attainment at the prior level (e.g. Fabian & Dunlop, 2006) and that successful transitions can facilitate academic attainment, school enjoyment and even preparedness for the future (Dockett & Perry, 1999). A key ingredient in these relationships is students adaptation, which appears to be facilitated by adopting a positive and comprehensive approach to the new challenges, such as changing friends, having multiple teachers and learning new subjects (INTO, 2008). These changes pose shifts in continuities to which pupils have become accustomed and demand considerable pupil adjustment (see Evangelou et al., 2008), which may be particularly challenging for pupils with SEND, especially where it involves lower academic attainment. Indeed, low academic attainment has been associated with problematic transitions (West et al., 2008), which in turn increase the risk of educational disengagement and drop-out (Darmody, 2008; Galton & Willcocks, 1983; Numminen & Kasurinen, 2003).

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A number of studies have also emphasised the importance of self-esteem in the process of transition, as either a directly influential or mediating variable. This may apply acutely to pupils with SEND, whose global self-concept appears to be lower at primary school than their typically-developing peers (Forgan & Vaughn, 2000; Rogers & Saklofsky, 1985). Indeed, West et al. (2008) found that low self-esteem is directly associated with poor transition outcomes. It is perhaps equally important to detect where pupils have misinterpreted their academic competence, either through over- or under-estimation, as we observed here, and to determine the extent to which self-esteem may be influenced by this misinterpretation (see Hoza, 2002).

Within all educational systems, it is widely acknowledged that key functions of continuous assessment include identifying an individual's educational trajectory and facilitating comparisons with other pupils (EADNSE, 2007). Continuous assessment, as our data here show, is also essential to undermine inaccurate assumptions about particular groups of children particularly with regard to academic attainment, and to illustrate clearly that even children deemed to be within a similar group can produce diverse outcomes, and this requires different forms of remediation. Our findings suggest that perhaps different individual or group profiles influence different transitions and further research with an array of groups with SEND will be needed to determine the broader range of competencies, perceptions of these competencies, and the precise extent to which these factors facilitate positive or negative transition experiences or outcomes.

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Figure 1: Mean WRAT-4 subscale scores.

Figure 2: Mean BSS subscale scores.

Figure 3: Mean MALS scores.

Figure 4: Mean MMCPC subscale scores.

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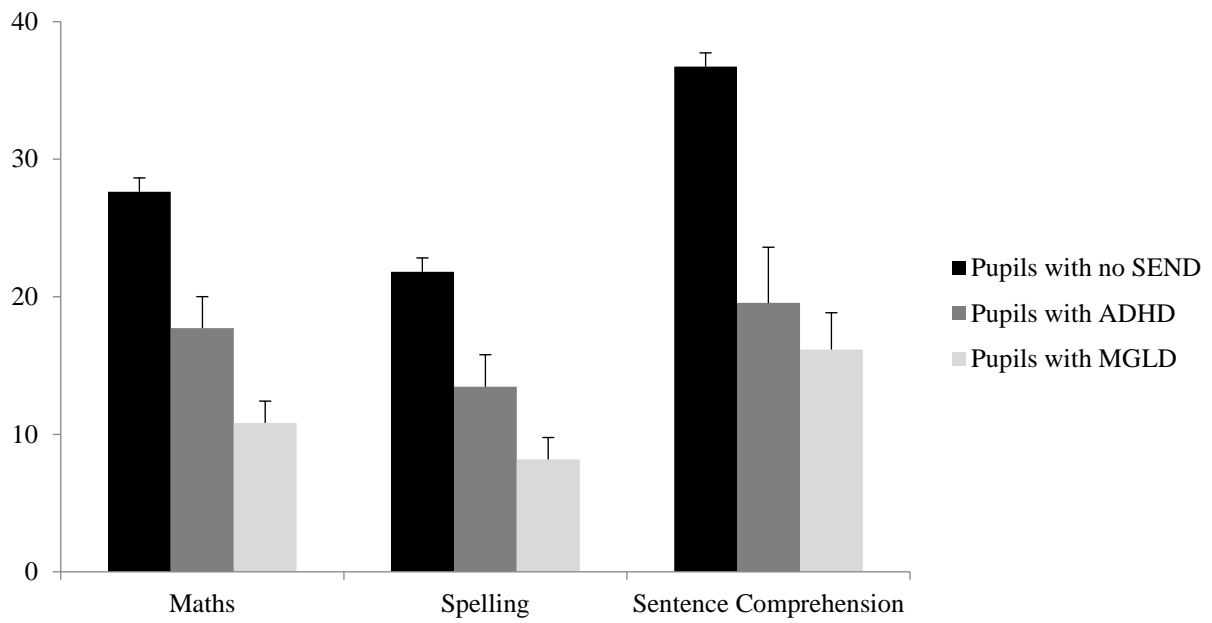


Figure 1. Mean WRAT-4 subscale scores.

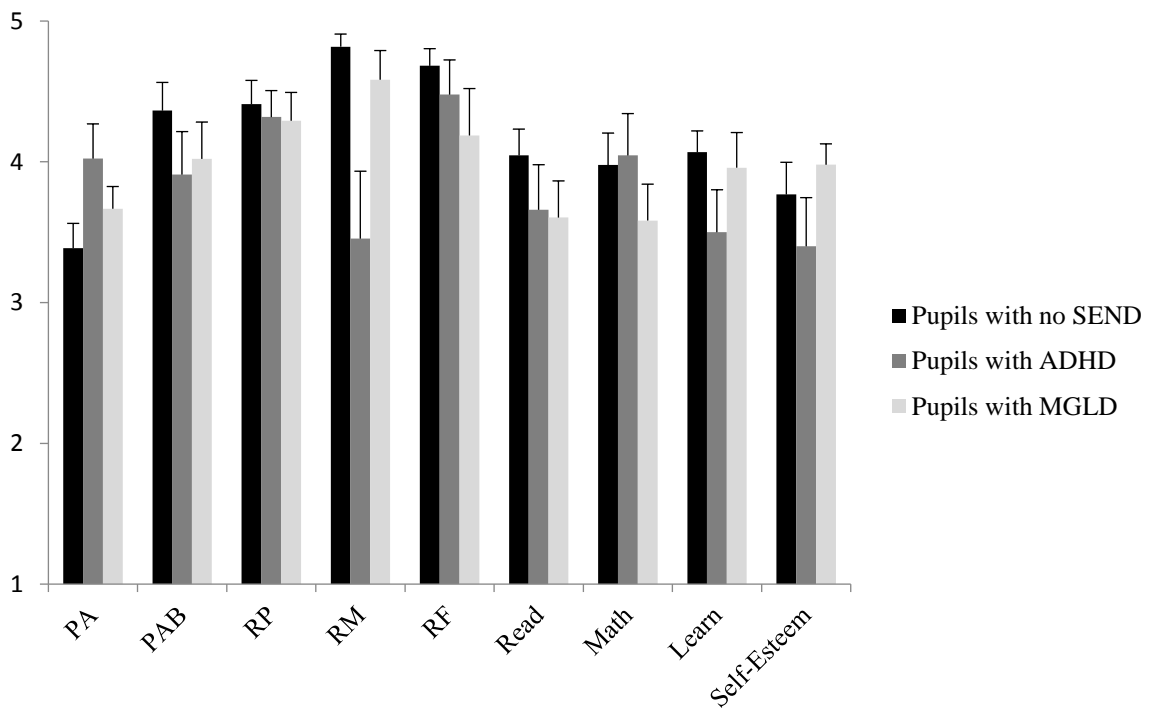


Figure 2. Mean BSS subscale scores.

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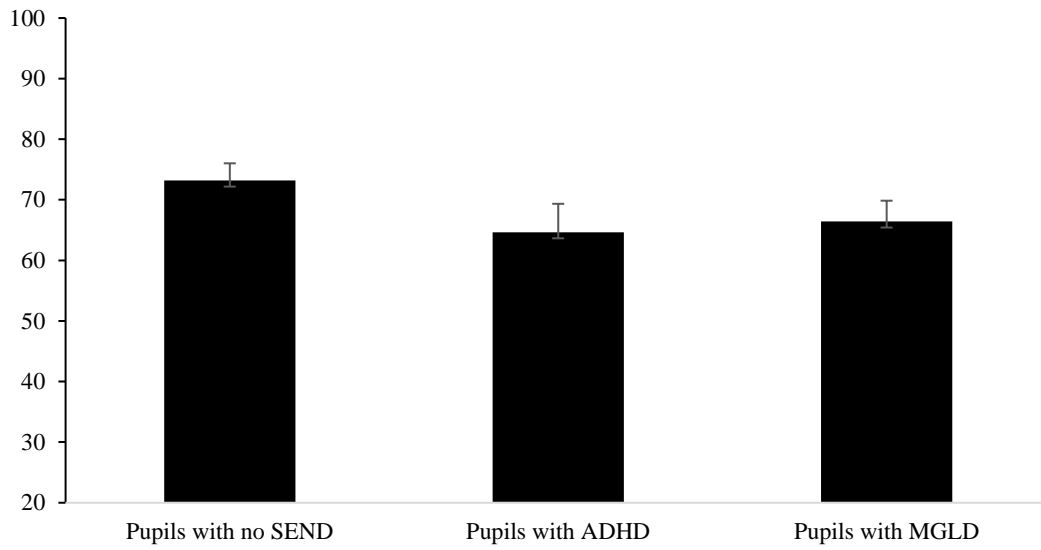


Figure 3. Mean MALS scores.

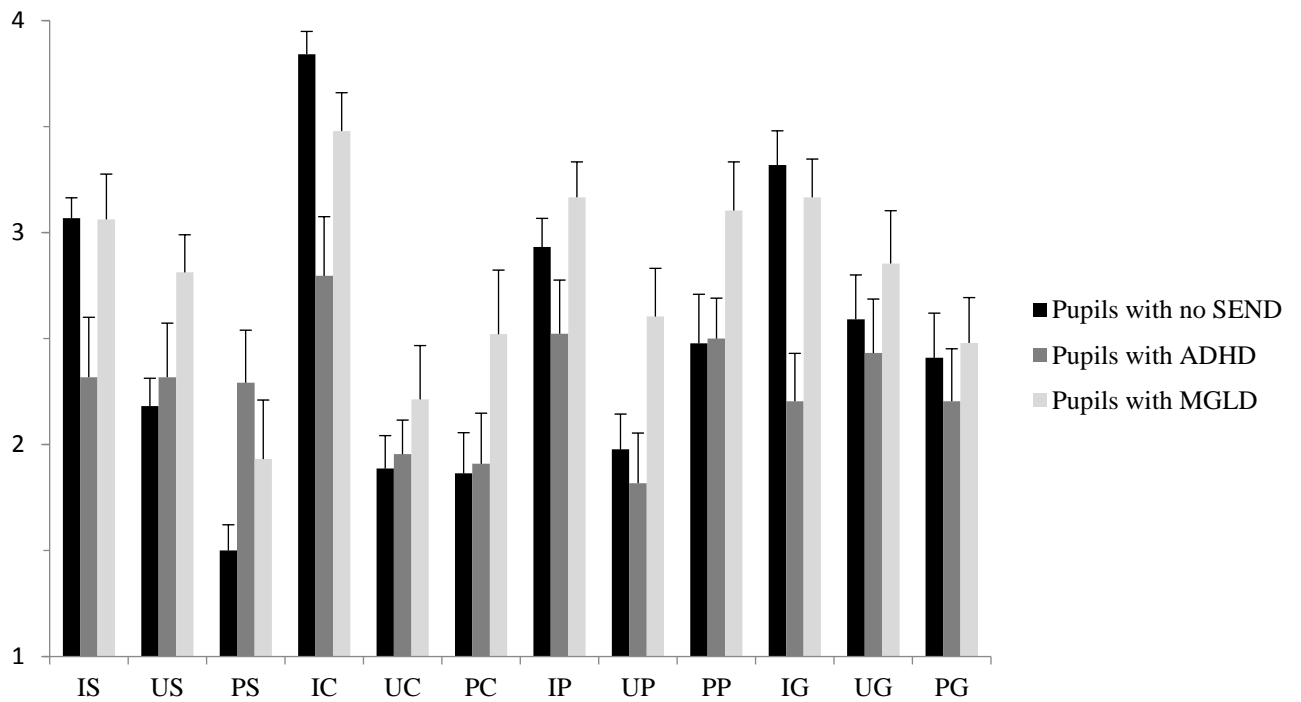


Figure 4. Mean MMCP scores.

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