



# Perceptions of exceptional skills in children with autism

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## Focusing on the strengths of Autistic children

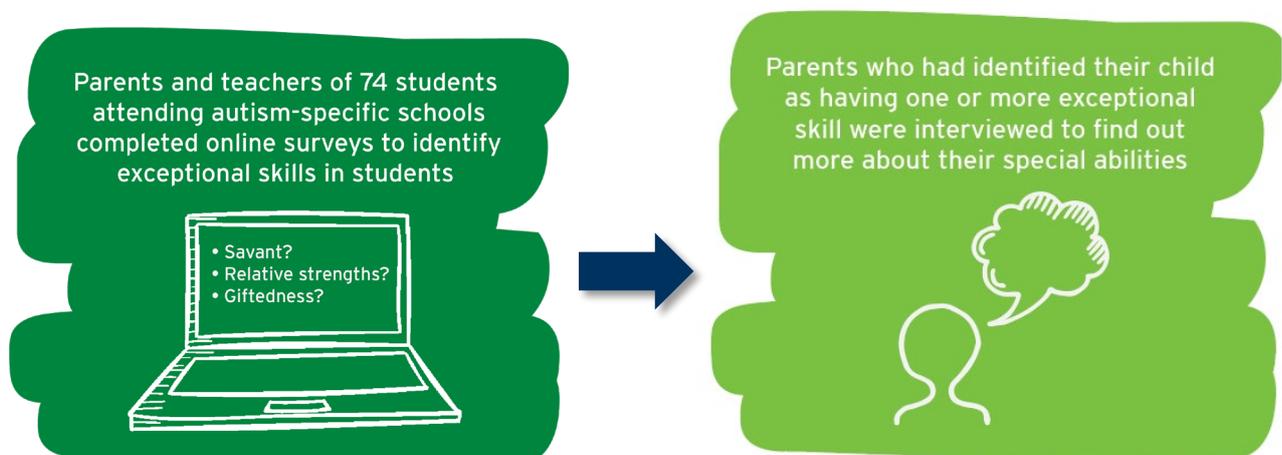
Research has consistently shown that Autistic individuals have poorer educational, employment and quality of life outcomes than non-autistic adults. Most interventions to date are deficit-based and focused on identifying and then attempting to develop areas of weakness. However, all Autistic individuals have areas of relative strength and some demonstrate exceptional skills in some areas. Using a strengths-based approach to educating Autistic children may equip them to utilise these skills in ways that foster greater inclusion and a better quality of life in adulthood. To assist educators develop such programs, **a better understanding of the strengths and exceptional skills of Autistic students is needed.**

### About the research

#### The identification of exceptional skills in children with autism: Prevalence, misconceptions, and the alignment of informant perspectives

Parents/carers and teachers of Autistic students attending one of four Aspect autism-specific independent schools were asked to complete an online survey to identify students with:

- **Relative strength** - an unusually high ability in a specific skill at a level that is not remarkable or rare for any person of any age, but it is significantly above a child's overall abilities or developmental level
- **Savant skill** - an unusually high ability in a very specific skill at a level that is far beyond what is commonly seen in any person at any age - it is a rare, remarkable skill that appears to defy explanation
- **Gifted** - a high level of ability in one or more areas that is not rare or remarkable for any person of any age, but it is much higher than most children of their age (i.e. in the top 10% of all children of their age)



This study examined the:

- **Rates and types of exceptional skills** in Autistic school-aged children attending autism-specific schools (Aspect)
- **Associations** between exceptional skills with autism severity and intellectual disability
- **Level of agreement** between parent/carers and teacher reports of exceptional skills.

For information regarding each child's/student's autism severity, parents also completed the Social Responsiveness Scale. Cognitive level was determined by review of previous cognitive assessments or with an updated assessment using the Wechsler Abbreviated Scale of Intelligence (WASI II; Wechsler, 2011).

Parents were interviewed by a clinical psychologist to gain further insight in relation to reported exceptional skills, and to assign a final rating of exceptional skills, according to the study criteria.

## **About this report**

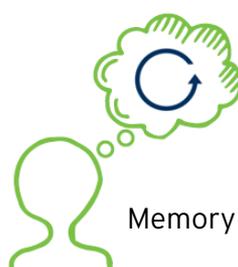
This report presents the key findings of this parent/carer and teacher survey and a summary of our recommendations for further research and good practice in the education of students with autism who display exceptional skills.

## The results

### Rates and patterns of exceptional skills

Children/students with autism may display strengths and/or exceptional skill(s) that sit alongside their impairments associated with autism. Twenty-nine percent of students were reported to display one or more exceptional skill.

Of the 29% of students rated as having at least one exceptional skill, 8 children (11%) had one or more savant skills and 14 children (18%) a relative strengths. No children were evaluated as displaying giftedness as defined in the questionnaire.



Most commonly reported exceptional skills

### Examples of parent reported exceptional skills

*"Can engineer things to get them to do what he desires"*

*"Exceptional calculation mentally with big digits"*

*"Max can replicate pictures/scenes he watches on cartoons from his memory or without looking at the picture/scene"*

*"Has a very strong memory and currently recalls facts on landmarks"*

## Associations between exceptional skills with autism severity and intellectual disability

There was no significant difference in autism severity scores for those with and without exceptional skills. Having an intellectual disability was also not associated with exceptional skills.



### Making a contribution

Historically, exceptional skills were thought to be displayed **only** by people with moderate to severe intellectual disability and developmental delay, or a major mental illness (Hill, 1978; Treffert, 1989). However, recent research suggests that exceptional skills, (savant skills in particular) may be present in people with autism regardless of their levels of autism severity or intellectual ability (Clark, 2001; Howlin et, 2009; Treffert, 2012).

The results of our survey indicate that exceptional skills were not related to autism severity and that children/students with autism may exhibit exceptional skills regardless of whether or not they have an intellectual disability.



## Level of agreement between parent/carers and teacher reports

Overall agreement between parents and teachers was low.



### Not surprising

The perspectives of parent/carers are important as they provide a unique insight into the skills and abilities of their children and how these have developed over time (Acar et al., 2016; Chan, 2009; Ruf, 2009). Teacher's perspectives are also valuable because of their professional training in education and child development and their opportunities to assess each child's skills and abilities in relation to their peers (Webster-Stratton & Lindsay, 2010). However, there is quite a large amount of evidence that parents and teachers can differ, sometimes substantially, in their accounts of children's behaviour, whether they are typically developing (see Achenbach, McConaughy & Howell [1987] for review) or have autism (Clark et al, 2019).

The low level of agreement between parent and teacher accounts of exceptional skills may be related to:

- Parents may be aware of an outstanding skill e.g. memory for postcodes, birthdays, or car registration numbers, which may not be the case for teachers in busy curriculum-based classroom settings
- Lack of familiarity and understanding of the different types of exceptional skills of children with autism by both parents and teachers - not surprising given the lack of commonly agreed definitions of exceptional skills in autism among researchers and practitioners
- Difficulties of using a questionnaire/survey and subjective perceptions of ability - we need to develop ways of identifying and assessing exceptional skills
- Low rates of giftedness reported by teachers and zero rate identified by the clinical psychologist may be due to the study being focused on children in a special educational setting where exceptional abilities are not typically expected compared to a mainstream educational settings.

## Summary

In our study approximately **one-third of children/students demonstrated one or more exceptional skill**. This is consistent with a number of previous studies in this area. Although there were no reports of giftedness as rated by the clinician, this is likely related to the study comprising only students with autism in special education schools.

Parents and teachers experienced some confusion and misunderstanding with the different types and definitions of exceptional skills as described in the survey. Again, this is not surprising given the lack of commonly agreed definitions of exceptional skills in the field of autism.

Rather than relying solely on information from surveys and questionnaires to add to our knowledge of exceptional skills, we need to develop better-standardised ways of identifying and assessing exceptional skills in individuals with autism.

## Recommendations for our practice and research

The outcomes or impact of this study will inform the development of professional development for teachers in Aspect schools and improved information and support for parents regarding exceptional skills in Autistic students.

In Individual Plan Meetings, teachers should ask parents specifically whether their child displays exceptional skills, which may not be directly related to the academic curriculum. If present, measures to better identify and assess these exceptional skills should be completed, and then the exceptional skills included in students' Individual Plans.

ARCAP is currently developing further studies examining the identification and assessment of strengths/exceptional skills in Autistic students and the inclusion of these skills in students' Individual Plans.





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understanding, engaging & celebrating the  
strengths, interests & aspirations  
of people on the autism spectrum

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