


ORIGINAL ARTICLE

Transition From Primary to Secondary School From the Perspectives of Students With Autism Spectrum Disorder and Concomitant Intellectual Giftedness[†]

Carolyn Anne Minnie 

Queensland University of Technology, Australia
Corresponding author. Email: caminnie65@gmail.com

(Received 23 January 2023; revised 11 October 2023; accepted 12 October 2023; first published online 29 November 2023)

Abstract

Transition from primary to secondary school is an often challenging milestone in the lives of all students. Although existing research provides insight into transition for students with autism spectrum disorder (ASD), research that considers transition from the perspective of students with ASD and concomitant intellectual giftedness (IG) appears scant. This paper contributes to narrowing this gap by providing insight into the experiences of 21 students with ASD and concomitant IG who had already transitioned to secondary school. Data gathered from focus group discussions revealed that this particular cohort of students experienced difficulties in gaining social acceptance by same-age peers and were unequipped to meet the expectations of secondary school teachers and an increased workload, which intensified their transition experience. These findings highlight that this cohort of students requires specific preparation and support to transition to secondary school, which was not occurring.

Keywords: autism spectrum disorder; intellectual giftedness; primary school; secondary school; transition

The transition to secondary school is a pivotal and often challenging milestone in the lives of all students (Rice et al., 2011; van Rens et al., 2018). However, for students with autism spectrum disorder (ASD) and concomitant intellectual giftedness (IG), making the adjustment to larger secondary school environments, new routines, and procedures, along with meeting the expectations of multiple teachers and gaining social acceptance by same-age peers, intensifies the transition experience (Hughes et al., 2013; Minnie et al., 2022; Mitchell & Beresford, 2014; Stack et al., 2021). Therefore, this cohort of students should be provided with timely preparations to support the transition to secondary school. However, successful support requires a systematic and consistent approach by all stakeholders (Towns, 2017). Although the role of stakeholders in supporting students with ASD to transition to secondary school appears to be well researched (e.g., Bruck et al., 2022; Makin et al., 2017; Mandy et al., 2016; Martin et al., 2021; Nuske et al., 2019), there seems to be a paucity of research that explores the voices of students with ASD and concomitant IG to ascertain the support they deem necessary. Researchers have an ethical responsibility to include persons with ASD in research to provide insight into the support required by this cohort of students (Cascio et al., 2020; Saggars et al., 2018). However, the lack of research that considers the voice of this cohort of students is of concern. In this paper, the author seeks

[†]This manuscript was accepted under the Editorship of Umesh Sharma.

to contribute to narrowing this gap by exploring these students' transitional experiences and giving voice to their recommendations.

A review of studies relating to the transitional experiences of students with ASD conducted by Richter et al. (2019) and Stack et al. (2021) identified that being prepared for secondary school and being familiarised with the secondary school environment was of value to these students. In addition, findings highlighted that these students desired social acceptance in secondary school and were concerned by the prospect of having multiple teachers (Richter et al., 2019; Stack et al., 2021). Further studies highlighted the importance of emotional support from stakeholders (e.g., teachers) who understood how to appropriately scaffold students with ASD to meet the expectations of secondary school (Coffey, 2009, 2013; Hopwood et al., 2016; Mitchell & Beresford, 2014), and could provide socio-emotional support for these students (Kutcher, 2014; Mitchell & Beresford, 2014; Richter et al., 2019; Stack et al., 2021). As such, it can be argued that a supportive teacher–student relationship would likely address and minimise student apprehensions about changes to routines, new social aspects, expectations, and the unfamiliar environment of secondary school (Scanlon et al., 2016).

Although commonalities relating to the support and preparation required by students with ASD transitioning to secondary school emerged from research (e.g., Dillon & Underwood, 2012; Fortuna, 2014; Richter et al., 2019), a recent study by Bruck et al. (2022) conducted in Australia found a lack of consistent support for this cohort of students. The majority of participants (60%) revealed that post-transition support was nonexistent (Bruck et al., 2022). These outcomes are concurrent with research by Ronksley-Pavia (2020) that students with disabilities (including ASD) and concomitant IG in schools across Australia remain underserved. This might explain the seeming lack of evidence-based programs to support transition to secondary school for this specific cohort of students (Dixon & Tanner, 2013; Ng et al., 2016; Prior, 2013; Ronksley-Pavia, 2020; Rossiter et al., 2018). Research and dialogue surrounding ASD and concomitant IG is further confounded by the complexity, uniqueness, and varying developmental trajectories of overlapping traits specific to this cohort of students (Assouline et al., 2012; Boschi et al., 2016; Doobay et al., 2014; Foley-Nicpon et al., 2017; Ronksley-Pavia, 2020; Ronksley-Pavia et al., 2019). As a result, teachers' limited knowledge relating to ASD and concomitant IG hampers the support offered to these students (Boschi et al., 2016; Foley-Nicpon et al., 2013; Minnie et al., 2022), especially in supporting difficulties attributed to differences in socio-emotional and executive functions.

Socio-Emotional Differences

In Australia, the average age of students transitioning to secondary school coincides with the developmental trajectory to adolescence (11 to 12 years old), a time when all students attempt to establish a social identity that is acceptable to peers and society (Neal et al., 2016; Vaz et al., 2014). However, for students with ASD and concomitant IG, differences in communication and social interactions may expose the vulnerability of these students and intensify the transition experience (Dixon & Tanner, 2013; Tso & Strnadová, 2017), often resulting in a heightened awareness of their differences (Gardner et al., 2021).

Differences in social interactions and communication skills can be attributed to challenges in understanding nonverbal language and/or language used out of context (e.g., sarcasm), which often results in students making inappropriate comments or not understanding humour (Foley-Nicpon et al., 2012; Lovecky, 2004; Ronksley-Pavia & Townend, 2017). Consequently, same-age peers may consider these students immature and exclude them from social groups. The demands of social interactions may also lead to frustration and anxiety for this cohort of students, which in turn may hamper the initiation of social interactions with other students (Griffin et al., 2006). Despite these differences, these students desire friendships and to be accepted by peers (Kutcher, 2014).

To afford these students opportunities to establish friendships requires scaffolding and additional socio-emotional support in mainstream schools (Saggers et al., 2018). However, to offer these students opportunities that develop 'emotional competence' requires stakeholders to understand the

social-emotional differences associated with ASD (and concomitant IG; Gardner et al., 2021, p. 29). It is likely that such knowledge will enable stakeholders to offer this cohort of students appropriate support in gaining social acceptance in secondary school.

Executive Functions of Autistic Students With Concomitant IG

Students with ASD and concomitant IG typically exhibit proficient academic skills (Cain et al., 2019), higher verbal reasoning skills (Foley-Nicpon et al., 2012), and an ability to approach problem-solving in novel ways (Burger-Veltmeijer et al., 2016) when compared to same-age peers and other students with ASD. Notwithstanding these proficiencies, a difference in global processing may hamper planning and task initiation for these students (Blijd-Hoogewys et al., 2014), which influences how they organise schoolwork and meet deadlines (Attwood, 2007; Cain et al., 2019; Nuske et al., 2019). In addition, cognitive inflexibility associated with ASD may evoke feelings of being overwhelmed, often inhibiting students from commencing or refocusing attention on new tasks, and at times may diminish the ability of these students to inhibit responses (Attwood, 2007). As a result, heightened levels of anxiety during transition may cause responses (e.g., shouting out, outbursts) that teachers with limited knowledge of ASD and concomitant IG may construe as behavioural or learning difficulties (Doobay et al., 2014; Foley-Nicpon et al., 2012; Wormald, 2017). As a result, these students may be given an inappropriate label. On the other hand, students with ASD and concomitant IG may inhibit responses by internalising behaviours exhibited as repetitive or patterned mannerisms (e.g., cataloguing, classifying, sequencing) to assist them in creating order (Attwood, 2007). However, stakeholders should not construe these repetitive and patterned mannerisms as organisational skills or task initiation.

Pursuing the need for appropriate adjustments for students with IG and a concomitant disability (including ASD), Willard-Holt et al. (2013) explored the perceptions of students in relation to support offered at school. Findings indicated that participating students felt that the educational system failed to recognise and harness their intellectual ability, resulting in misappropriated learning adjustments (Willard-Holt et al., 2013). In the current research, the author explored the perceptions of students with ASD and concomitant IG ($N = 21$) who had already transitioned to secondary school to determine what adjustments they considered essential to support transition to secondary school.

Method

Ethical Considerations

Ethical approval to conduct the current study was granted by the Queensland University of Technology University Human Research Ethics Committee (UHREC; Approval number 1800000060). A screening tool, compiled by the researcher, was approved by the UHREC to assist schools with screening potential students for participation in the study.

Recruitment and Consent

Six schools were invited to participate in the research. The researcher contacted each of the principals via email, requesting a brief meeting to discuss the research project. However, only three principals agreed to involve their schools in the research. These principals were provided with an information pack outlining the research project and were requested to sign a consent form. The principal at each of the research sites appointed a teacher (typically, the head of secondary school) to liaise with the researcher.

Schools were solely responsible for screening and selecting students to participate in the research. Each school generated an initial email inviting selected parents to discuss participation in the research with their child. Upon accepting the invitation, expressions of interest to participate were emailed directly to the researcher. These parents and students received an information pack via email. The

information pack included a social story outlining the intent of the research and what students could expect during the focus group session. The pack also included examples of topics to be discussed and parent/student consent forms. Consent from a primary caregiver was required given the ages of student participants. The signed parent/student consent forms were returned directly to the researcher by email.

Participants

To align with a social constructivist epistemology, a qualitative research design was employed to facilitate the exploration of ‘real people in real situations’ (Cohen et al., 2017, p. 376) and to give precedence to the students’ interpretations of their experiences and perspectives (Braun & Clarke, 2013; Cohen et al., 2017). Moreover, Fletcher-Watson et al. (2019) argued that the inclusion of persons with autism was crucial in gaining insight into their perspectives and experiences. Therefore, students with ASD and concomitant IG who had already transitioned to secondary school were invited to participate in the research. These students were selected from Years 7 to 10 as they were deemed able to share their transition experiences and express their perspectives on challenges, including how these challenges might be addressed. Older students were included as they were considered to be able to recall challenges and provide insight into the consistency of support in secondary school.

Schools were solely responsible for the selection and screening process of students; discussions relating to student nominations were not entered into, and information regarding a diagnosis or that would indicate students’ IG was not sought. Of the 23 participants nominated by the schools, two withdrew due to family circumstances. The composition of student participants ($N = 21$) is provided in Table 1.

Setting

Three P-12 independent schools participated in the research, and a concise overview is provided in Table 2. P-12 schools were purposefully selected to allow the researcher access to both secondary and primary campuses. In addition, conducting research at a P-12 school, where students typically

Table 1. Student Participants

School	Total number	Male	Female	Year 7	Year 8	Year 9	Year 10
School 1	7	5	2	4	1	1	1
School 2	7	2	5	4	1	2	0
School 3	7	4	3	7	0	0	0

Table 2. Participating Schools

Research sites	Approximate enrolment	Location
School 1 Independent P-12	1,600 students	Urban city in South East Queensland
School 2 Independent P-12	800 students	Regional town in South East Queensland
School 3 Independent P-12	1,200 students	Regional town in South East Queensland

transitioned from primary to secondary school within the same school, provided a measure of consistency regarding the support offered to students and the experiences of these students who transitioned from Year 6 to secondary school.

Data Collection

Focus group discussions provide participants with opportunities to engage in discussions that expose opinions and perspectives (Ary et al., 2014; Braun & Clarke, 2013), and where participants are encouraged to share their experiences relating to topics that might not otherwise have emerged in individual interviews (Creswell, 2008). Ary et al. (2014) stated that in instances where there was limited research on the topic, focus group discussions were useful in identifying emerging issues to assist in gaining insight into and pursuing issues — in the case of this research, the transition experiences of students with ASD and concomitant IG who had transitioned to secondary school.

One concern raised by the UHREC was that students with ASD may not function well within group dynamics. However, the researcher wrote a social story outlining what a focus group entailed and supplied the questions students would be asked, providing students with an opportunity to prepare answers and an understanding of what to expect. These steps align with recommendations by the Cooperative Research Centre for Living with Autism for conducting group meetings with persons with autism (Saggers et al., 2018).

In addition, findings from research conducted by Gowen et al. (2019) indicated that participants with ASD valued, and felt valued, when they were provided with opportunities to discuss their experiences and opinions with others. This may explain why participants from this study were forthcoming in sharing their experiences and seemed to find comfort in being part of a group that shared similar experiences relating to transition, and in offering suggestions on how schools could better support transition to secondary school.

Focus group discussions were voice-recorded and transcribed verbatim. Participants were given an alphanumeric code to de-identify the data and were offered an opportunity to review the transcript to check for accuracy or withdraw comments they did not wish to have included in the data.

Instrumentation

In the absence of a consistent method for identifying autistic students with concomitant IG, a list of traits associated with ASD and IG was created from the existing literature. This list was to be used as a screening tool and was approved by the UHREC. The screening tool was provided to participating schools by the researcher to assist with the screening of potential student participants. The schools' decisions as to the selection of student participants were respected, and discussions regarding the selection of students were not entered into by the researcher. In addition, information relating to a diagnosis of autism or results from IQ tests, prior to or after the focus group discussions, were not requested.

Data Analysis

Data analysis was approached using thematic analysis as a method for 'identifying, analysing and interpreting' data (Clarke & Braun, 2017, p. 297). Thematic analysis was employed to identify interconnections within data with relevance to the following research question: 'What support do students with ASD and concomitant IG consider essential to support transition from primary to secondary school?'

Deductive analysis was guided by a review of the literature, and inductive analysis was conducted by listening to the perspectives and experiences of participants during focus groups. The analysis was guided by a recursive process initially delineated by Braun and Clarke (2006). In phase one, the researcher gathered data from across the various sites on separate occasions, facilitating the viewing

Table 3. Coding Snapshot Relating to Social Differences

Original student transcript	Deductive codes framed by existing literature	Inductive codes framed by student experiences
<p>I honestly think socially, like the order, the cliques, and different popular groups were really obvious as soon as we hit high school. I miss primary school in regard to, like, socially. Like having everyone, our cohort was so close, and then as soon as we hit high school everyone just went. I know this is something we can't really change, to any extent, but it is really something that I would love to have back in high school, social equality in a grade. (Student 29S6)</p>	<p>Differences in social interactions and communication associated with autism spectrum disorder (ASD) create challenges for students with ASD. Students with ASD are often excluded from social groups. Students with ASD desire friendships.</p>	<p>Student recognises difference in social hierarchy in secondary school. Student signals being excluded by same-age peers. Socially scaffolding students with ASD prior to transition to secondary school might provide opportunities for social acceptance.</p>

and reviewing of data over time. Data gathered from the focus group discussions were transcribed verbatim from voice recordings into Word documents, which were then imported into NVivo 12 (QSR International Pty Ltd., 2020) for coding and analysis.

In the second phase, the transcripts were reread and coded to identify relationships and patterns within the data in relation to the research question. The researcher coded data deductively guided by existing literature with a focus on challenges autistic students faced during transition to secondary school. Phrases relating to challenges were identified and categorised into criterion relating to the differences associated with autism and experiences within the school environment. A snapshot of how data relating to social differences were coded is provided in Table 3.

Once data had been coded and grouped together, the researcher reviewed the data, checking that themes and coded data were relevant. Themes that had inadequate data are to be removed (Braun & Clarke, 2013). For example, data indicated that the markings of school buildings were confusing, but when measured across the data corpus, this set of data was found to only relate to one student at a particular school. Although this data was of interest to the researcher, it did not address the research question and was therefore omitted from the data corpus.

Credibility of Research

To ensure the trustworthiness of research, Ary et al. (2014) recommended methods to substantiate the trustworthiness of qualitative research such as data triangulation, member checks, and transparency. Transparency was achieved by consistently following steps outlined by Braun and Clarke (2013), which ensured the integrity with which data were collected and analysed. Triangulation of data was facilitated by the gathering of data from multiple groups of students at various sites, allowing the researcher to identify similarities and compare findings.

In addition, participants were given an opportunity to member check transcripts to ensure accuracy, to provide feedback to correct any errors, and to withdraw any comments that they did not wish to have included in the data. No amendments to the transcripts were made, and no participants withdrew any data. Member checking adds to the credibility of research by controlling bias throughout the transcription of verbatim audio recordings (Ary et al., 2014).

Results

Data from the current research indicated that students with ASD and concomitant IG required additional support relating to (a) socio-emotional challenges, and (b) in equipping them with skills to meet the expectations of secondary school.

Socio-Emotional Support

The socio-emotional support deemed essential by participating students with ASD and concomitant IG focused specifically on navigating complex social groups within the secondary school environment and in gaining social acceptance by peers:

You get a little bit lost and bombarded with everything like growing up, peer pressure, and all that stuff. It's just so much to think about. (Student 29S5)

When I got to high school, my best friend left, so it was just me, no one else. I had to find a whole new friendship and it was really, really hard to do. Everyone has their own little groups from the years before and there was just me. I had to try and fit in. (Student 27S1)

The social order, the clique, and different groups was really obvious as soon as we hit high school. I miss primary school . . . having everyone so close, and then as soon as we hit high school, everyone just went. I know this is something we can't really change to any extent, but it is really something that I would love to have back in high school, social equality in a grade. (Student 29S6)

These comments signal that a shift in social groups within the secondary school environment presented significant challenges for these students. In addition, differences in social interactions associated with ASD may have hindered acceptance by social groups. Moreover, comments by Year 9 students suggest that these challenges are not specific to the first year of secondary school but extend throughout the secondary years and elicit feelings of being abandoned by the cohort. Some students seemed aware of their social differences and were of the opinion that social skills should be incorporated into the curriculum:

Our social skills are getting pushed back and stuff that 99% of us won't need. Yeah, our social skills are getting pushed back and those sorts of things [subject content] are being pushed forward. (Student 29S5)

They [secondary school teachers] are not teaching us a lot of real-life stuff and that causes a lot of the problems in this century. (Student 2S96)

These comments highlight the need for explicit and consistent teaching of social skills to support and scaffold students with skills they deemed as essential life skills. In addition, students considered that this support may offer them more opportunities to gain some social acceptance. Another commonality to emerge from the data was that participating students felt unequipped to meet secondary school expectations.

Equipping Students With Skills to Meet Secondary School Expectations

A commonality to emerge from the data was that students considered themselves unequipped with skills required to meet the expectations of multiple teachers, and to contend with the increased workload of secondary school. This state of unpreparedness heightened levels of anxiety, intensifying the transition experience:

I reckon a major part of the transition was that teachers expected us to be independent. When you transition to high school, you're thrown out there without knowing what to do. You don't have any idea. Transitioning from Year 6 to Year 7 was a real wake-up call for me. (Student 29S5)

I also think that in primary school the teachers guided you through all the stuff. In high school after a couple of weeks they [teachers] literally just bombard you with assignments. You're still getting

used high school, then suddenly you get three assignments all at once ... from different teachers, due at once and you don't know what to do. (Student 28S3)

Yes, it is difficult when you have different teachers for different subjects. (Student 29S6)

These students recalled transition as being a stressful time where they felt overwhelmed by the expectation to be independent, of having to meet the expectations of multiple teachers, and coping with an increased workload. These comments signal that they were not prepared or equipped to meet the demands of secondary school. Similarly, students from School 3 reiterated being overwhelmed:

I think for me one of the hardest things or changes is the expectations. They expect so much more from you going into high school. They expect you be there on time, expect you to know your way around. They expect you to know a lot more than in primary school. You have more individual work, and they expect you to be more independent. (Student 37S4)

In primary school, the assessments are spread out, but in secondary school, the teachers put their assessments where they want to, so you could have, like, three assessments at the same time. (Student 37S6)

Adding on to what Student 37S6 said, it was one assessment per term in primary school. It's one assessment per term per subject, minimum, in high school. (Student 37S3)

And you only had one teacher, who knew what homework they have given you. But when you're in Year 7, you have homework for each subject and you have to keep up with the homework from other subjects. This is hard. (Student 37S1)

I think that teachers need to be aware of what other things are happening. (Student 37S2)

The reference to primary school teachers providing guidance and minimising workload so that students had sufficient time to complete assignments suggests that this did not prepare these students to meet the expectations of secondary school. In addition, references to secondary school teachers suggest that they appear unaware of the work given by colleagues, or of the challenges that these students faced in meeting expectations. Further, some students suggested that secondary school teachers may also make assumptions that students have the necessary skills to complete work within set time frames:

That's another thing that I really hate about high school is that teachers all give you an assignment and they think that theirs is the most important. They want their assignment to go first, above all other assignments. You've got five others to do. (Student 27S3)

Like you've got seven other subjects that you're doing with assignments and exams. (Student 29S6)

Similarly, a student from School 3 commented,

Sometimes teachers remark that they made the assignment, and it was pretty much worked out and we should get a good mark on it, then ask us why it is taking so long. (Student 37S2)

It is possible that secondary school teachers may inadvertently put pressure on students by setting expectations that their subject is more important than other subjects. However, students with ASD (and concomitant IG) may take comments made in relation to subject importance literally. In addition, it would appear that the assumptions made by teachers that students are equipped to complete and understand assignments also compound anxiety levels.

Students were forthcoming with suggestions that would better prepare students for transition to secondary school:

They [teachers] should definitely give you a lead-up though, because otherwise you are totally overwhelmed because you don't know what to do. (Student 28S3)

Yeah, it's just kind of there like a concrete wall in your face. (Student 27S4)

The group agreed with this statement by nodding or commenting 'yeah':

Introduce things slowly . . . just introduce a high school aspect every 5 weeks and let the kids wrap their heads around what high school is actually about. (Student 29S5)

Like Student 29S5 was saying, like being in a Year 7 classroom for a week in Grade 6, so you get a feel for it and where everything is. (Student 27S1)

I think that in Year 6 we need to be taught some of the skills. Not necessarily giving us all of the assignments in Year 6, but teaching us how to time manage. (Student 27S2)

There was consensus among participants that a systematic approach where skills were explicitly taught throughout Year 6 would better prepare students with ASD and concomitant IG for secondary school, instead of only during the last few weeks of Term 4. Students also recommended that time management skills required explicit teaching and that opportunities to practise these skills should be offered so students could organise an increased workload in secondary school:

To avoid stress, especially in the middle of the term, learn how to manage your time for homework and assignments. I need to learn to manage my time, so I don't get as stressed with all the assignments and stuff. (Student 19S6)

Yes, I agree. (Student 17S2)

Yeah, time management. (Student 17S3)

Although Student 19S6 was aware of the significance of time management, she identified that her lack of time management skills contributed to heightened stress levels. Moreover, this Year 9 student's comment highlights a lack of explicit teaching of time management skills in both primary and secondary school.

Only students at School 3 provided suggestions as to how teachers should provide support in managing time:

Teach us how to manage time using blocks. Also, assignments need to have a sheet or information on which part should be done when. (Student 37S2)

We were given this book at the start of Term 4. It had all these time management things in the back. I found this helped because it also told me how to basically understand the assignment. If we had that at the start of the year, I feel I would have done better. (Student 37S3)

If we even had it at the start of the second term, it would help, but by the fourth term, you sort of have worked out what to do. (Student 37S4)

Although the preceding comments indicated the significance of explicitly teaching and scaffolding students with time management skills, teachers need to be mindful of appropriately scaffolding time management skills:

We got this sheet that told us how long we should spend on homework every night. It was really wrong as I would be spending 2 hours on French homework a night when it says I should only be spending 20 minutes a week. (Student 37S2)

I know that at the start of the year it was said that if we did 70 minutes of homework a day it should get us through. But on the weekends, Saturdays, Mum will come in and ask if I'm getting a headache because I will have been working for 2 to 3 hours. (Student 37S1)

It is possible that the time frames teachers provided may have been calculated on their assumptions that students in Year 7 were equipped with the skills required to complete the work. However, differences in global processing (e.g., planning, initiating) associated with autism may impede students' ability to meet deadlines (Tso & Strnadová, 2017), and setting inappropriate time frames, along with the desire of students with ASD and concomitant IG to please, contributed to heightened levels of anxiety in these cases.

Secondary School Environment

Although existing research indicated that students with ASD experienced challenges relating to the secondary school environment, students participating in the current research were not forthcoming with challenges relating to the secondary school environment. The researcher prompted the students to reflect on the use of lockers, resources, and navigating a larger campus. Students at School 1 considered lockers as redundant:

I scarcely use my locker since the lovely invention of online textbooks. I just have a big thick book with different sections that I use for my subjects. So, I don't even use my locker anymore. (Student 19S4)

I usually put things in my bag. It is easier to get stuff out of my bag than the locker. (Student 17S3)

A reasonable explanation for not using lockers was provided; however, the convenience of laptops and schoolbags was deemed to alleviate accessing resources from lockers.

Likewise, students at School 2 and 3 did not comment on lockers; instead, they commented on the inconvenience of having to carry resources (e.g., books, laptops) with them while navigating the secondary school campus and changing classrooms:

A challenge for me going into Year 7 was having keep going back and forth to a locker and not just leaving your stuff on the desk like we did in primary school. (Student 37S3)

Yes, and the constant switching between classrooms . . . We have some classrooms that are way over there, and we didn't actually know where to go. (Student 37S1)

Similar comments were made by students from School 2:

Yeah, like with timetables, lockers, and walking from one side of the school to the other while carrying your books, like what?! (Student 27S4)

When I first came here, I used to come to Learning Enrichment, if I didn't know where I was. I also found the timetables really hard to understand, because instead of writing the full name of the teacher, they write like just the first three letters of the teachers' surnames. (Student 27S3)

We have a timetable, and we have to walk to different classes. And then you see all the blocks and the letters and it's just crazy. (Student 27S1)

Although in Year 6 these students were familiarised with the secondary school campus, they felt unprepared to follow timetables and orientate themselves while organising resources and navigating the campus.

Discussion

Although the majority of students describe feeling anxious and overwhelmed by secondary school (Bruck et al., 2022; Coffey, 2013; Hopwood et al., 2016; Waters et al., 2014), research into the transition experiences of students with ASD and concomitant IG is sparse. As a result, the findings from the current research make a significant contribution to narrowing this gap. The limited research on the transition experiences of students with ASD and concomitant IG presented challenges in comparing the current findings with existing research; therefore, research relating to the transition of students with ASD was considered. Contrary to findings from these studies that suggested that moving between classrooms, navigating the secondary school campus, and the use of lockers heightened levels of anxiety (Dewrang & Sandberg, 2011; Mitchell & Beresford, 2014; Ng et al., 2016), these aspects were considered as more of an inconvenience than a challenge by participants in the current research. Instead, participating students indicated that not being equipped with the skills required for secondary school left them feeling overwhelmed by the expectations of multiple teachers and an increased workload, which heightened levels of anxiety. In addition, the emergence of social groups in secondary school, along with a deep-seated desire for social acceptance (Kutcher, 2014), might explain why students participating in the current research recognised the need for explicit teaching of social skills in preparation for secondary school.

Although research indicates that transition to secondary school can contribute to levels of heightened anxiety, these findings seem not to inform policy and/or pedagogical practice, which may explain the paucity of guidelines to support students with ASD and concomitant IG to transition from primary to secondary school. To narrow this gap, the researcher of the current study would recommend that policymakers (e.g., Australian Curriculum, Assessment, and Reporting Authority) provide educational organisations with clear and consistent guidelines to assist teachers in equipping this cohort of students with skills required in secondary school. This recommendation is based on the change to a national curriculum that has delivered a level of academic consistency and aligned educational standards across the states and territories. Therefore, it is probable that teachers and schools alike will adhere to and implement guidelines mandated by policymakers. To enhance inclusive education in Australia tasks stakeholders to timeously equip all students, especially students with ASD and concomitant IG, with appropriate and explicitly taught skills that will enable them to access and meet secondary school expectations.

Limitations of This Study

Limitations to this research relate to sample size and sample consistency. The UHREC considered the identification of students with ASD and concomitant IG a potential cause of distress for both parents and students alike. To address this concern, schools were tasked with selecting student participants who were known to the school (i.e., be involved in support/programs), and the parents of these students were to be aware of their child's involvement in programs or of support offered by the school. In addition, no information on the students selected was requested, nor were discussions as to the

selection of students entered into. Although the criteria for participation stipulated that these students were to be involved in gifted and talented programs and/or had been identified with ASD, it was not possible to guarantee that all students participating in this research were students with ASD and concomitant IG. As a result, sample consistency is considered a limitation.

Moreover, the absence of a consistent method for identifying the concomitance of ASD with IG resulted in a screening tool being created by the researcher from multiple sources in the literature. This tool was accepted by the UHREC, but the researcher relied on schools to screen and nominate student participants. Notwithstanding limitations in sample consistency, participating students provided rich accounts of challenges experienced during the transition to secondary school, making recommendations on how teachers can better support these students to transition to secondary school.

In addition, the sample was limited to three Queensland P-12 independent schools. Therefore, these findings may not fully align with the transition experiences in government schools and Catholic schools, or schools in other states and territories, and may not be of relevance to a wider variety of schools. However, the findings are still significant to narrowing a gap in research relating to this specific cohort of students.

Conclusion

Transition to secondary school remains and will remain an often intensified experience for students with ASD and concomitant IG if they are not provided with support to transition to secondary school. This cohort of students requires specific and consistent support to scaffold differences in social interactions and executive functions attributed to ASD. However, these students remain an underserved and often unrecognised cohort within schools, and the responsibility for providing specific and consistent support to transition to secondary school lies at the feet of all stakeholders. Moreover, future research should include students from this cohort who are very able to share their experiences and provide insight into the challenges of transition.

References

- Ary, D., Jacobs, L. C., Sorensen, C. K., & Walker, D. A. (2014). *Introduction to research in education* (9th ed.). Wadsworth Cengage Learning.
- Assouline, S. G., Foley-Nicpon, M., & Dockery, L. (2012). Predicting the academic achievement of gifted students with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 42(9), 1781–1789. <https://doi.org/10.1007/s10803-011-1403-x>
- Attwood, T. (2007). *The complete guide to Asperger's syndrome*. Jessica Kingsley Publishers.
- Blijd-Hoogewys, E. M. A., Bezemer, M. L., & van Geert, P. L. C. (2014). Executive functioning in children with ASD: An analysis of the BRIEF. *Journal of Autism and Developmental Disorders*, 44(12), 3089–3100. <https://doi.org/10.1007/s10803-014-2176-9>
- Boschi, A., Planche, P., Hemimou, C., Demily, C., & Vaivre-Douret, L. (2016). From high intellectual potential to Asperger syndrome: Evidence for differences and a fundamental overlap—A systematic review. *Frontiers in Psychology*, 7, Article 1605. <https://doi.org/10.3389/fpsyg.2016.01605>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. SAGE Publications.
- Bruck, S., Webster, A. A., & Clark, T. (2022). Transition support for students on the autism spectrum: A multiple stakeholder perspective. *Journal of Research in Special Educational Needs*, 22(1), 3–17. <https://doi.org/10.1111/1471-3802.12509>
- Burger-Veltmeijer, A. E. J., Minnaert, A. E. M. G., & Van den Bosch, E. J. (2016). Intellectually gifted students with possible characteristics of ASD: A multiple case study of psycho-educational assessment practices. *European Journal of Special Needs Education*, 31(1), 76–95. <https://doi.org/10.1080/08856257.2015.1087147>
- Cain, M. K., Kaboski, J. R., & Gilger, J. W. (2019). Profiles and academic trajectories of cognitively gifted children with autism spectrum disorder. *Autism*, 23(7), 1663–1674. <https://doi.org/10.1177/1362361318804019>
- Cascio, M. A., Weiss, J. A., & Racine, E. (2020). Person-oriented ethics for autism research: Creating best practices through engagement with autism and autistic communities. *Autism*, 24(7), 1676–1690. <https://doi.org/10.1177/1362361320918763>
- Clarke, V., & Braun, V. (2017). Thematic analysis. *The Journal of Positive Psychology*, 12(3), 297–298. <https://doi.org/10.1080/17439760.2016.1262613>
- Coffey, A. (2009). *Managing the move*. ResearchOnline@ND. <https://researchonline.nd.edu.au>

- Coffey, A. (2013). Relationships: The key to successful transition from primary to secondary school? *Improving Schools*, 16(3), 261–271. <https://doi.org/10.1177/1365480213505181>
- Cohen, L., Manion, L., & Morrison, K. (2017). *Research methods in education* (8th ed.). Routledge. <https://doi.org/10.4324/9781315456539>
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Pearson/Merrill Prentice Hall.
- Dewrang, P., & Sandberg, A. D. (2011). Repetitive behaviour and obsessive–compulsive features in Asperger syndrome: Parental and self-reports. *Research in Autism Spectrum Disorders*, 5(3), 1176–1186. <https://doi.org/10.1016/j.rasd.2011.01.003>
- Dillon, G. V., & Underwood, J. D. M. (2012). Parental perspectives of students with autism spectrum disorders transitioning from primary to secondary school in the United Kingdom. *Focus on Autism and Other Developmental Disabilities*, 27(2), 111–121. <https://doi.org/10.1177/1088357612441827>
- Dixon, R. M., & Tanner, K. (2013). The experience of transitioning two adolescents with Asperger syndrome in academically focused high schools. *Australasian Journal of Special Education*, 37(1), 28–48. <https://doi.org/10.1017/jse.2013.5>
- Doobay, A. F., Foley-Nicpon, M., Ali, S. R., & Assouline, S. G. (2014). Cognitive, adaptive, and psychosocial differences between high ability youth with and without autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 44(8), 2026–2040. <https://doi.org/10.1007/s10803-014-2082-1>
- Fletcher-Watson, S., Adams, J., Brook, K., Charman, T., Crane, L., Cusack, J., Leekam, S., Milton, D., Parr, J. R., & Pellicano, E. (2019). Making the future together: Shaping autism research through meaningful participation. *Autism*, 23(4), 943–953. <https://doi.org/10.1177/1362361318786721>
- Foley-Nicpon, M., Assouline, S. G., & Colangelo, N. (2013). Twice-exceptional learners: Who needs to know what? *Gifted Child Quarterly*, 57(3), 169–180. <https://doi.org/10.1177/0016986213490021>
- Foley-Nicpon, M., Assouline, S. G., & Stinson, R. D. (2012). Cognitive and academic distinctions between gifted students with autism and Asperger syndrome. *Gifted Child Quarterly*, 56(2), 77–89. <https://doi.org/10.1177/0016986211433199>
- Foley-Nicpon, M., Fosenburg, S. L., Wurster, K. G., & Assouline, S. G. (2017). Identifying high ability children with DSM-5 autism spectrum or social communication disorder: Performance on autism diagnostic instruments. *Journal of Autism and Developmental Disorders*, 47(2), 460–471. <https://doi.org/10.1007/s10803-016-2973-4>
- Fortuna, R. (2014). The social and emotional functioning of students with an autistic spectrum disorder during the transition between primary and secondary school. *Support for Learning*, 29(2), 177–191. <https://doi.org/10.1111/1467-9604.12056>
- Gardner, A., Wong, M., & Ratcliffe, B. (2021). Social-emotional learning for adolescents on the autism spectrum: High school teachers' perspectives. *Australasian Journal of Special and Inclusive Education*, 45(1), 18–33. <https://doi.org/10.1017/jsi.2020.13>
- Gowen, E., Taylor, R., Bleazard, T., Greenstein, A., Baimbridge, P., & Poole, D. (2019). Guidelines for conducting research studies with the autism community. *Autism Policy & Practice*, 2(1), 29–45.
- Griffin, H. C., Griffin, L. W., Fitch, C. W., Albera, V., & Gingras, H. (2006). Educational interventions for individuals with Asperger syndrome. *Intervention in School and Clinic*, 41(3), 150–155. <https://doi.org/10.1177/10534512060410030401>
- Hopwood, B., Hay, I., & Dymont, J. (2016). The transition from primary to secondary school: Teachers' perspectives. *The Australian Educational Researcher*, 43(3), 289–307. <https://doi.org/10.1007/s13384-016-0200-0>
- Hughes, L. A., Banks, P., & Terras, M. M. (2013). Secondary school transition for children with special educational needs: A literature review. *Support for Learning*, 28(1), 24–34. <https://doi.org/10.1111/1467-9604.12012>
- Kutcher, M. L. (with Attwood, T., & Wolff, R. R.) (2014). *Kids in the syndrome mix of ADHD, LD, autism spectrum, Tourette's, anxiety, and more! The one-stop guide for parents, teachers, and other professionals* (2nd ed.). Jessica Kingsley Publishers.
- Lovecky, D. V. (2004). *Different minds: Gifted children with AD/HD, Asperger syndrome, and other learning deficits*. Jessica Kingsley Publishers.
- Makin, C., Hill, V., & Pellicano, E. (2017). The primary-to-secondary school transition for children on the autism spectrum: A multi-informant mixed-methods study. *Autism & Developmental Language Impairments*, 2. <https://doi.org/10.1177/2396941516684834>
- Mandy, W., Murin, M., Baykaner, O., Staunton, S., Hellriegel, J., Anderson, S., & Skuse, D. (2016). The transition from primary to secondary school in mainstream education for children with autism spectrum disorder. *Autism*, 20(1), 5–13. <https://doi.org/10.1177/1362361314562616>
- Martin, T., Dixon, R., Verenikina, I., & Costley, D. (2021). Transitioning primary school students with autism spectrum disorder from a special education setting to a mainstream classroom: Successes and difficulties. *International Journal of Inclusive Education*, 25(5), 640–655. <https://doi.org/10.1080/13603116.2019.1568597>
- Minnie, C., Lassig, C., Tangen, D., & Beutel, D. (2022). Teacher collaboration in supporting students with twice-exceptionality to transition to secondary school. *Australasian Journal of Gifted Education*, 31(2), 20–35. <https://doi.org/10.21505/ajge.2022.0013>
- Mitchell, W., & Beresford, B. (2014). Young people with high-functioning autism and Asperger's syndrome planning for and anticipating the move to college: What supports a positive transition? *British Journal of Special Education*, 41(2), 151–171. <https://doi.org/10.1111/1467-8578.12064>

- Neal, S., Rice, F., Ng-Knight, T., Riglin, L., & Frederickson, N. (2016). Exploring the longitudinal association between interventions to support the transition to secondary school and child anxiety. *Journal of Adolescence*, 50(1), 31–43. <https://doi.org/10.1016/j.adolescence.2016.04.003>
- Ng, S. J., Hill, M. F., & Rawlinson, C. (2016). Hidden in plain sight: The experiences of three twice-exceptional students during their transfer to high school. *Gifted Child Quarterly*, 60(4), 296–311. <https://doi.org/10.1177/0016986216656257>
- Nuske, H. J., McGhee Hassrick, E., Bronstein, B., Hauptman, L., Aponte, C., Levato, L., Stahmer, A., Mandell, D. S., Mundy, P., Kasari, C., & Smith, T. (2019). Broken bridges—New school transitions for students with autism spectrum disorder: A systematic review on difficulties and strategies for success. *Autism*, 23(2), 306–325. <https://doi.org/10.1177/1362361318754529>
- Prior, S. (2013). Transition and students with twice exceptionality. *Australasian Journal of Special Education*, 37(1), 19–27. <https://doi.org/10.1017/jse.2013.3>
- QSR International Pty Ltd. (2020). *NVivo 12* [Computer software]. <https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home>
- Rice, F., Frederickson, N., & Seymour, J. (2011). Assessing pupil concerns about transition to secondary school. *British Journal of Educational Psychology*, 81(2), 244–263. <https://doi.org/10.1348/000709910X519333>
- Richter, M., Popa-Roch, M., & Clément, C. (2019). Successful transition from primary to secondary school for students with autism spectrum disorder: A systematic literature review. *Journal of Research in Childhood Education*, 33(3), 382–398. <https://doi.org/10.1080/02568543.2019.1630870>
- Ronksley-Pavia, M. (2020). Twice-exceptionality in Australia: Prevalence-Pavia estimates. *Australasian Journal of Gifted Education*, 29(2), 17–29. <https://doi.org/10.21505/ajge.2020.0013>
- Ronksley-Pavia, M., Grootenboer, P., & Pendergast, D. (2019). Bullying and the unique experiences of twice exceptional learners: Student perspective narratives. *Gifted Child Today*, 42(1), 19–35. <https://doi.org/10.1177/1076217518804856>
- Ronksley-Pavia, M., & Townend, G. (2017). Listening and responding to twice exceptional students: Voices from within. *TalentEd*, 29, 32–57.
- Rossiter, R. C., Clarke, D. K., & Shields, L. (2018). Supporting young people’s emotional wellbeing during the transition to secondary school in regional Australia. *Australian and International Journal of Rural Education*, 28(1), 71–84. <https://doi.org/10.47381/ajre.v28i1.170>
- Saggers, B., Klug, D., Harper-Hill, K., Ashburner, J., Costley, D., Clark, T., Bruck, S., Trembath, D., Webster, A. A., & Carrington, S. (2018). *Australian autism educational needs analysis – What are the needs of schools, parents and students on the autism spectrum? Full report and executive summary* (Version 2). Cooperative Research Centre for Living with Autism.
- Scanlon, G., Barnes-Holmes, Y., McEntegart, C., Desmond, D., & Vahey, N. (2016). The experiences of pupils with SEN and their parents at the stage of pre-transition from primary to post-primary school. *European Journal of Special Needs Education*, 31(1), 44–58. <https://doi.org/10.1080/08856257.2015.1087128>
- Stack, K., Symonds, J. E., & Kinsella, W. (2021). The perspectives of students with autism spectrum disorder on the transition from primary to secondary school: A systematic literature review. *Research in Autism Spectrum Disorders*, 84, Article 101782. <https://doi.org/10.1016/j.rasd.2021.101782>
- Towns, S. (2017). Harnessing the power of collaborative practice to improve the primary to secondary school transition experience. *Australian Educational Leader*, 39(1), 58–61.
- Tso, M., & Strnadová, I. (2017). Students with autism transitioning from primary to secondary schools: Parents’ perspectives and experiences. *International Journal of Inclusive Education*, 21(4), 389–403. <https://doi.org/10.1080/13603116.2016.1197324>
- van Rens, M., Haelermans, C., Groot, W., & Maassen van den Brink, H. (2018). Facilitating a successful transition to secondary school: (How) Does it work? A systematic literature review. *Adolescent Research Review*, 3(1), 43–56. <https://doi.org/10.1007/s40894-017-0063-2>
- Vaz, S., Parsons, R., Falkmer, T., Passmore, A. E., & Falkmer, M. (2014). The impact of personal background and school contextual factors on academic competence and mental health functioning across the primary-secondary school transition. *PLoS ONE*, 9(3), Article e89874. <https://doi.org/10.1371/journal.pone.0089874>
- Waters, S. K., Lester, L., & Cross, D. (2014). Transition to secondary school: Expectation versus experience. *Australian Journal of Education*, 58(2), 153–166. <https://doi.org/10.1177/0004944114523371>
- Willard-Holt, C., Weber, J., Morrison, K. L., & Horgan, J. (2013). Twice-exceptional learners’ perspectives on effective learning strategies. *Gifted Child Quarterly*, 57(4), 247–262. <https://doi.org/10.1177/0016986213501076>
- Wormald, C. (2017). An enigma: Barriers to the identification of students who are gifted with a learning disability. In N. Ballam & R. Moltzen (Eds.), *Giftedness and talent: Australasian perspectives* (pp. 331–351). Springer Nature Singapore. https://doi.org/10.1007/978-981-10-6701-3_15