

Asperger's/Autistic Spectrum Disorder project: transition from higher education to the workplace

Dawn-Marie Walker

The main diagnostic criteria for autistic spectrum disorders (ASD) are communication and social interaction difficulties, which can make the transition from education to the workplace traumatic. A course was organised to help with this transition; with four learning outcomes: i) Knowing oneself: ASD inherent traits and the work setting; ii) Career research: mapping ASD traits onto careers; iii) Workplace issues; and iv) Developing an action plan. Qualitative interviews were conducted. All respondents agreed that the course was useful with two main themes arising: confidence building and identifying with having ASD.

Introduction

We can see in the autistic person, far more clearly than with any normal child, predestination for a particular profession from earliest youth. A particular line of work often grows naturally out of their special abilities.

(Asperger, 1944)

The rising prevalence of Autistic Spectrum Disorders (ASD) (including Aspergers, Autism and Pervasive Developmental Disorder) has corresponded with an increase in educational programmes for students with ASD outside higher education (HE) (Kerr et al., 2003). HE establishments, on the other hand, appear

less prepared for teaching these students (Taylor, 2005). There is also a lack of research regarding HE-attending students with ASD due to the widespread but mistaken assumption that ASD will preclude study at degree level and beyond (Powell, 2003). However, with the advent of UK Disability Discrimination Act (DDA) (2005), and a heightened awareness of ASD, including better diagnosis, there are a growing number of students with ASD attending HE. In 2002, UK HE establishments accepted 68,000 students with disabilities and of these 3,700 were classified as having mental health difficulties, including ASD (Department of Education and Skills, 2010). In 2003, the Universities and Colleges Admissions Service (UCAS) added ASD as a criterion in the disability section on their application form. That year, 165 applicants disclosed as having ASD, of whom 139 were offered places. By 2008, this figure had risen to 851 applicants disclosing, with 706 being offered places (Deacy, 2009).

The main diagnostic criteria for ASD are communication and social interaction difficulties. People with ASD may have difficulty turn-taking in conversations and may be verbose in their dialogue as well as having reserved body language and lack of eye contact. These specific difficulties may affect their performance in the job interview or work place. It is estimated that there are about 332,600 people of working age in the UK with an ASD and 259,506 are thought to be of average intelligence or above; however, only 6% of these individuals are in full-time, paid employment (Barnard et al., 2001). This is lower than the percentage for the 7 million people of working age with disabilities; 49% of the latter were in employment in 2003, compared with 81% of people who are not disabled (Office for National Statistics,

2004). Employment for people with ASD is particularly important as unemployment can further compound social isolation and marginalisation and can trigger psychological problems such as depression, low self-esteem, stress and anxiety (Attwood, 2003; Ghaziuddin, 2005).

To help with the transition between education and employment, the Centre for Career Development at the University of Nottingham piloted a course for students with ASD. The course was designed to help guide them through thinking about needs, impairments and issues, about how these can map to workplace scenarios and to make the transition from education into work as smooth as possible. The course was open to all University of Nottingham students with ASD, whether they were undergraduates or postgraduates and regardless of year of study. The course consisted of informal workshops that provided opportunity for dialogue between teacher and students. The four main learning outcomes and associated activities are summarised below.

i) **Knowing oneself: the traits inherent with ASD and how they could impact on work.**

A short overview of ASD was provided with a discussion about associated traits, what they mean and how they can impact on individuals, colleagues and the workplace. The attendees completed the Myers-Briggs personality assessment to enable a more customised identification of their own profile, rather than a generic ASD one. This helped to ensure that career options were explored fully, rather than following a predestined course as argued by Asperger (1944). The students were also encouraged to gain a wider range of career experiences in order to develop a portfolio of skills.

ii) **Career research: mapping ASD traits onto careers.**

The attendees explored the different issues impacting on career decision making, including planning how to reach goals, and the steps needed. They considered

the data from the Myers-Briggs assessment, together with their personal requirements, such as financial rewards, interests, etc., and worked with career advisors to ascertain and discuss appropriate options. Over-reliance on matching approaches can neglect other factors such as the job market (Mitchell and Krumboltz, 1996), personality development over time (Osipow and Fitzgerald, 1996), cultural specific determinants (Leong et al., 1998), the influence of gender (Farmer et al., 1998), and sexual orientation (Mobley and Slaney, 1998). To reflect this, the course incorporated not only a matching exercise but some consideration of developmental career theory (Super, 1957) i.e. the attendees were enabled to understand themselves, their role in work, and variations across the lifespan.

iii) **Workplace issues.**

The attendees were enabled to identify workplace issues that influence the transition into work for people with ASD and any needs that should be addressed prior to starting in a new role. Topics covered included interpersonal relationships, disclosure, ergonomics, communication, and handling change.

iv) **Action plan: planning for the personal transition.**

Incorporating the information learnt from the previous sessions, the attendees were supported in writing their own personal development plan. This included the details and timing of the steps needed to build their personal pathway. The attendees were given one-to-one support from a careers advisor for this. Ongoing support to further develop the personal development plan, or revise it if necessary, was offered either via meetings with a career advisor or the University of Nottingham Careers' online portal.

The achievement of the learning outcomes was not formally assessed. The production of a detailed personal development plan was the main form of informal assessment. As the course was voluntary, it

was thought that having a more formalised assessment scheme would prevent some students attending.

Aim

This study aimed to evaluate the Asperger's transition course within an HE setting from the participants' perspectives.

Method

Ethics

This project adhered to the principles proposed by the British Educational Research Association (BERA) (2004). All participants gave informed, signed consent prior to inclusion.

Participants

Recruitment for the course took place via agreement with the Student Services department at Nottingham University who identified four students who had either identified as having ASD on their UCAS form, or who had disclosed post-registration. The true number of students who have disclosed with ASD at Nottingham may be under-represented because common practices within HE do not routinely capture code B from the UCAS form which includes ASD. The referred sample consisted of one female and three males of whom one had just graduated. One participant was a research postgraduate and the remaining students were undergraduates, three with science backgrounds and one with arts. There was a range of ages, educational levels, and backgrounds in the sample. Two students chose to be interviewed face to face; the remaining two students chose Skype chat.

The course

The taught sessions took place between October 2008 and March 2009. The course was designed to be delivered by a consultant with experience of Asperger's in a business context (MJ) and who has Asperger's himself, together with a careers advisor

(PK). The course was split into four, 3 hour sessions and was designed to be delivered within one academic year.

Data collection methods

After the last session, students were interviewed to evaluate the course. Prior to the interview, the questionnaire was emailed to the participants. It was recognised that people might have difficulty giving negative feedback person to person, due to the lack of anonymity. Also, due to the nature of ASD with its associated deficits in social functioning, great thought was given to the data collection process, as it was understood that an interview situation may be an intimidating situation. A recent study has been conducted that evaluated the internet as a communication medium for people with ASD which found that the internet lessened the emotional, social and time pressures which the participants experienced during offline situations (Benford, 2008). Therefore it was proposed that participants would be offered an interview in-person or using computer-mediated communication (Skype). For the face-to-face interview, data would be recorded using a digital voice recorder which was then transcribed verbatim. The Skype chat was a typed conversation and thus did not require transcribing.

The interviews

Questions were formulated in collaboration with MJ and PK. Semi-structured interviews were selected which allowed enough flexibility within the questioning to explore the issues highlighted by the participants (Rubin and Rubin, 1995). The survey was piloted and designed to take approximately 30 minutes to complete. The questions asked were:

1. What was the most useful thing you learnt during this programme?
2. What was the least useful thing you learnt during this programme?
3. What did you enjoy about the programme?
4. What did you dislike about the programme?

5. Has the programme helped you identify an appropriate career? If 'yes' how?
6. How do you think the programme could be improved?
7. Are you more confident about explaining your condition to employers?
8. Are you more confident about adapting your work practice, e.g. environment, seeking clarification of tasks to be completed, etc.?

Reflection diaries

The participants were also given a reflection diary each with instructions: to make notes after each session about how it went; to include comments about any feelings or reactions to any of the taught material; to note what was enjoyable and not enjoyable about that session; and to record the main learning outcomes achieved. They were also encouraged to note any reflections they had between sessions, e.g. using a technique learnt in class when faced with a difficult situation. All data obtained from the interviews and reflection diaries were analysed together. The research method sought to obtain different perspectives by using more than one method of data collection. This constituted a form of triangulation via data (Denzin, 2006). The researcher also kept field notes of the sessions and a personal reflective diary research diary.

Analysis

The process of analysis was inductive to allow the most important themes and comments from the participants to be highlighted.

Results from the interviews and diaries

Using the data obtained from the four interviews and the two reflection diaries submitted, the following themes were derived from searching systematically to identify any recurrent patterns and clusters of data with similar meaning.

Confidence building

All participants stated that the course enabled them to develop the confidence to disclose their disorder to any prospective employers.

I think it's always going to be quite hard to ask for adaptations because you don't want other people to be thinking you're strange, or being too demanding. But I think if you can help them understand that small changes could help you, then that's good.

[Participant 1]

The course also gave students some useful insights as to what may be expected from them and the techniques to manage these situations.

...being confident in knowing what the workplace would be like and how you can manage having Asperger's in it.

[Participant 1]

Identifying with having Asperger's

The students stated that the course gave them time, and the ability, to think about the general traits of ASD and how one can turn these unique traits into positive ones in the correct environment.

...they're trying to get us to think a bit more about the general traits of people with Asperger's and how you can quite easily turn those [negatives] perhaps into a positive, and show the ease with which someone has actually managed to [do so].

[Participant 3]

One of the positive aspects of the course for the majority of the students was having the teaching delivered by someone with ASD. They felt that the teacher had first-hand knowledge of appropriate and successful techniques to deal with difficult workplace situations, and had proved this by achieving success.

...it was useful having someone [teaching the course] with Asperger's because they had personal experience they could draw on...

[Participant 1]

As the teacher had Asperger's, he also had insight into the most appropriate teaching approaches to suit the learning styles of people with Asperger's. This was appreciated by the students as it ensured that the course was delivered at the right level and was structured correctly. However, although all students thought it was useful to have a tutor with personal experience of the disorder, the general consensus was that it need not be taught by someone with Asperger's all of the time.

...I don't think empathy is sort of a monopoly of someone with the exact same shared experiences.

[Participant 3]

Meeting others who shared the same disorder allowed the students to self-identify with the disorder and this was appreciated:

...listening to the actual students was one of the most rewarding aspects for me...it allows you to understand what is personally you, and what is actually part of the condition.

[Participant 4]

It also helped prevent a feeling of isolation, as there is a lack of disclosure to the university and peers about having this disorder.

I think it's useful meeting other students with similar conditions because it makes you feel less isolated.

[Participant 1]

However, even though they enjoyed the group situation, and appeared to gain a great deal from it, perhaps due to the nature of the disorder, the group had difficulty in developing a group identity and none of the group met up between sessions or subsequently.

Improving the course

When the students were asked for detailed feedback regarding what aspects of the course they felt could be improved, all of the students mentioned the timing of the course. Although they recognised that the timetable may be due to external influences such as lecturer availability, they thought the spread over the

full year was too long.

I think the sessions were quite a long way apart, sometimes it made it quite hard to remember from one session to the next.

[Participant 1]

The students suggested that, instead of having the course spread over a full academic year, the course could take place on a monthly basis instead. They thought that the number of sessions, i.e. 4, was suitable. Even though it was felt by the course leaders that the size of the class was small and therefore problematic, all students agreed that 4-5 students in the class would be a good number but that it should not be less than that.

...potentially you could have one or two more [students] but the more people you have, the more processing everyone with Asperger's is doing, which can potentially slow down response times.

[Participant 1]

When asked how the course could be improved, three of the students mentioned splitting the course, and delivering it separately to postgraduates and undergraduates, due to the different types of students requiring different career advice.

...there's quite a distinction, people starting out on their undergrad and people who are undertaking postgraduate study.

[Participant 3]

Personal reflections and field notes

From my field notes, I observed that PK interacted well with MJ and the course was well-presented with supporting PowerPoint presentations. There was plenty of interaction between the leaders and the students, and between the students themselves. In the first session, it was noticeable that one of the students was very quiet with a passive body posture, eyes cast down and not laughing at jokes. However, the student did attend the following sessions, and gradually got to know the group and gained a voice. Another member

of the group, who needed quite firm handling during the sessions, had little concept of 'turn taking' and was a dominant character. From my more personal reflections, although I attended the sessions, I took no part in the teaching or discussions; however, the students were aware of the project and my role in the group. The students knew I was an academic member of staff. The relationship I developed with them over the course was beneficial to the quality of the data as they knew me. They also knew that the data would be kept confidential, including from the Careers Centre. I believe this encouraged openness in the range of opinions expressed about the value of the course.

Learning outcomes

As stated above, the main form of assessment was the personal development plan. This reflected the knowledge gained throughout the course. The structure of each plan stemmed from the participants' interpretations of the material and the key issues they took from it.

i) Knowing oneself

The plans revealed that the students had considered and reflected on: the key traits of ASD and whether or not they had an effect; the traits that exerted the most impact; and the potential effect on different work roles. They also used their Myers-Briggs profile to develop further understanding.

ii) Career research

The plans showed that students had thought about what jobs they may find interesting and suitable for their needs, including not only ASD traits but also financial, time and geographical aspects, etc. In their plans, they had outlined the techniques which would be useful for their career research such as job vacancy or company web sites, job advertisements in relevant publications, and how to use the careers centre or networks.

iii) Workplace issues and requirements

The plans revealed that the students had considered their personal ASD traits and whether the role they hoped for would suit these. Other workplace issues had been considered by all students, e.g. levels of socialisation required; working environment (such as office based, or outdoors); and levels of communication required.

iv) Action plans

Some students had taken the issues outlined above to the next stage by using these for career search, and developing any further steps required in their personal development plans.

Discussion

The evaluation suggests that the course was well-received and valued by the participants. It enabled the students to have confidence in their abilities and to adapt their unique traits into positive ones. It also gave students space to think and plan for the future.

...it was good to challenge and get you thinking and perhaps re-confirm in your mind that the ideas you've got may, or may not, be compatible [with ASD].

[Participant 3]

Although the students appeared to learn a lot from this course and the feedback was generally good, the main limitation was not the subject matter or the delivery, it lay in identifying students who could benefit. Ascertaining who these students were was extremely difficult. This was partly because the Student Support Services department at the University of Nottingham does not keep easily accessible records of the registered students who have ASD. Therefore, although there were four participants identified for this course, there may have been many other students who could have benefited but who were not identified. This issue was compounded by the fact that students with ASD may not self-disclose either because they feel they do

not require any extra support or because they fear stigma or rejection. It may be because of the high/normal intelligence associated with people with ASD, and their ability to develop coping strategies which mask impairments, that the needs of people with high-functioning ASD may not receive sufficient recognition by HE or work establishments (Frith, 2004).

Recommendations regarding enhancement of the course

It is proposed that a member of the Student Support Service liaises with the Career Development Centre in order to access data regarding new students with ASD. It is recommended to circulate details regarding the course on the Intranet, and to email undergraduate Schools and the Graduate School in order to increase intake. It is suggested, numbers permitting, to run two courses, one for postgraduates and one for undergraduates. It is also recommended to have groups of between five and eight students per intake.

Conclusion

The course was well received and the students thought it was useful with good feedback given. Although this course developed good outcomes for a group of marginalised students, this will only fully benefit them if employers are educated also. Employers need to be educated in order to combat fear of mental illness and encourage self-disclosure. A combination of self-disclosure and wider societal acceptance will lead to the adoption of a more widespread, social model of disability.

References

- Asperger, H. (1944) Die 'Autistischen Psychopathen' Im Kindesalter. *Archiv für Psychiatrie und Nervenkrankheiten*, 117, 76-136.
- Attwood, T. (Ed.) (2003) *Cognitive Behaviour Therapy*, Philadelphia, PA: Jessica Kingsley Publishers.
- Ghaziuddin, M. (2005) *Mental Health Aspects of Autism and Asperger Syndrome*, London: Jessica Kingsley Publishers.
- Barnard, J., Harvey, V., Potter, D. and Prior, A. (2001) Ignored or Ineligible? The Reality for Adults with Autism Spectrum Disorders. *National Autistic Society*. http://www.co-brass.com/NAS_Outcome_Study%5B1%5D.pdf (accessed 30 January 2012).
- Benford, P. (2008) *The Use of Internet-Based Communication by People with Autism*. University of Nottingham.
- British Educational Research Association (2004) Revised Ethical Guidelines for Educational Research. <http://www.bera.ac.uk/files/2008/09/ethica1.pdf> (accessed 30 January 2012).
- Deacy, S. (2009) Mythology and Autism. *Students with Asperger Syndrome in HE*. <http://myth-autism.blogspot.com/search?updated-min=2009-01-01T00:00:00Z&updated-max=2010-01-01T00:00:00Z&max-results=5> (accessed 30 January 2012).
- Denzin, N. (2006) *Sociological Methods: A Sourcebook*, Chicago: Aldine Transaction.
- Department of Education and Skills (2002) UK-Domiciled HE Student Statistics.
- Farmer, H., Rotella, S., Anderson, C. and Wardrop, J. (1998). Gender Differences in Science, Math and Technology Careers: Prestige Level and Holland Interest Type, *Journal of Vocational Behaviour*, 53, 1, 73-96.
- Frith, U. (2004) Emanuel Miller Lecture: Confusions and Controversies about Asperger Syndrome. *Journal*

Asperger's/Autistic Spectrum Disorder project

of *Child Psychology & Psychiatry*, 45, 672-686.

Kerr, K., Smyth, P. and McDowell, C. (2003) Precision-Teaching Children with Autism: Helping Design Effective Programmes. *Early Child Development and Care*, 174, 399-410.

Leong, F.T.L., Austin, J.T., Sekaran, U. and Komarraju, M. (1998). *An Evaluation of the Cross-Cultural Validity of Holland's Theory: Career Choices by Workers in India*, *Journal of Vocational Behavior*, 52, 441-455.

Mitchell, L.K. and Krumboltz, J.D. (1996) Krumboltz's Learning Theory of Career Choice and Counselling, in Brown, D, Brooks, L and Associates (Eds) *Career Choice and Development* (3rd. Ed), San Francisco, CA: Jossey Bass.

Mobley, M., and Slaney, R.B. (1996). Holland's Theory: Its Relevance for Lesbian Women and Gay Men, *Journal of Vocational Behavior*, 48, 2, 125-135.

Office for National Statistics (2004) *Social Trends No.34*. London: TSO

Osipow, S.H. and Fitzgerald, L.F. (1996) *Theories of Career Development* (4th. Ed) Needham Heights, MA: Allyn and Bacon.

Powell, S. (2003) *Special Teaching in Higher Education: Successful Strategies for Access and Inclusion*, London: Kogan Page.

Rubin, H. and Rubin, I. (1995) *Qualitative Interviewing: The Art of Hearing Data*, Thousand Oaks, CA: Sage.

Super, D.E. (1957) *The Psychology of Careers*, New York: Harper and Row.

Taylor, M.J. (2005) Teaching Students with Autistic Spectrum Disorders in HE, *Education and Training*, 47, 484-495.

For correspondence

Dr. Dawn-Marie Walker
University of Nottingham
Nottingham Integrated Clinical Research Centre
The Research Design Service for the East Midlands (NDL)
Room 2400, C Floor, South Block
Queen's Medical Centre
Nottingham NG7 2UH

Email: dawn-marie.walker@nottingham.ac.uk
Tel: 0115 924 9924 ext. 70706
Fax: 0115 82 30501



Acknowledgements

Peter Kay, Centre for Career Development, University of Nottingham; and Malcolm Johnson, Asperger Management.