Inclusive educational practice for autistic learners
Guest Editors: Damian Elgin Maclean Milton and Nicola Martin

81 Guest editorial
83 Publishers note
84 Participatory autism research with students at a UK university: evidence from a small-scale empirical project
Kenneth Andrew Searle, Liz Ellis, Marianthi Kouri, Andrea MacLeod, Caroline Lear, Calum Duckworth, Davide Irvine, Harry Jones, Michaela King, Jessica Ling and John Simpson
94 Impact of training in Autism on inclusive practices
Amy Dympna Nolan and Elizabeth Fraser Selkirk Hannah
107 Self-advocacy and self-determination of autistic students: a review of the literature
William James Zuber and Colin Webber
117 Barriers and enablers of inclusion for young autistic learners: lessons from the Polish experiences of teachers and related professionals
Marion Hersh and Sharon Elley
131 The sensory school: working with teachers, parents and pupils to create good sensory conditions
Nicola Martin, Damian Elgin Maclean Milton, Joanna Krupa, Sally Brett, Kim Bulman, Danielle Callow, Fiona Copeland, Laura Cunningham, Wendy Ellis, Tina Harvey, Monika Moranska, Rebecca Roach and Seanne Wilmot
Guest editorial

Second special edition on autism and education

Welcome to the second special edition, which focuses on good practice in education of autistic people. Education is conceptualised broadly and encompasses the whole age range from early years into adulthood. It is necessary to bear in mind that autistic children become autistic adults and autistic pupils, if they are lucky, become autistic students. If they are even luckier, they go on to being autistic employees engaged in satisfying careers. These things should not be a matter of luck and we are reminded in more than one of the articles about the principles which underpin the 2010 Equality Act and UN Convention on The Rights of Persons with Disabilities.

The Children and Families Act (CFA 2014) emphasises the importance of transition to adulthood and continuing access to education up to the age of 25 for disabled young people. Only those with “the most complex requirements” have access to the protection of an Education and Health Care Plan which is meant to facilitate a smoother transition between educational phases and into work or further education (although often fails in practice). The CFA fails to mention university as a destination post-school and this is problematic as growing numbers of autistic people are progressing to higher education.

Contributors to this special edition include autistic graduates some of whom, including the co-editor of this special edition, have gone on to gain doctorates. A particular strength of this volume is the inclusion of the authentic voices of autistic people and this principle underpins the work of the editors. We both operate within the context of university and The Participatory Autism Research Collective (PARC) and recognise the privilege of our employed status. Many autistic researchers (including PARC members) are not as fortunate because of the many barriers to employment encountered by autistic people, including those educated to the highest level.

Editors have only included work in which autistic voices are prominent. This principle applies to all aspects of our own research and we both strive to ensure that autistic researchers are properly remunerated for their expertise.

Common themes emerge within this volume and coalesce around the idea that autism should be viewed positively and holistically rather than as a set of deficits which have to be addressed and somehow fixed. The requirement to create positive learning environments is emphasised throughout and specifically discussed in practical terms both in the training on inclusive practice and sensory school papers. Sensory concerns present in the learning context are highlighted as an environmental barrier which needs to be understood and addressed in order to facilitate a positive learning environment for autistic learners.

While the positive learning environment idea may seem obvious, readers are reminded that unhelpful deficit model stigmatising discourses around autism are widely available. This concern is covered effectively in the paper that explores the experiences of educational professionals working with autistic children and young people in Poland that draws links between inclusive practice and social/neurodiversity models of disability, and the paper which considers self-advocacy and self-determination of autistic students. In the article on the impact of training of educational staff, the recommendations include being cognisant of the world views of autistic people and aware of the ways in which individuals perceive the world. Similar considerations are also echoed within the sensory school paper. Training interventions for staff which include authentic autistic voices are recommended and this is echoed in the...
paper which considers the sensory environment of the school. Interventions without understanding what is going on for the individual are inherently flawed and the editors would argue unethical.

Lifelong education is of interest to the editors and the volume would have benefitted from the inclusion of an article which considers this point in detail. Many autistic students are over 25. The majority of autistic doctoral students are over 25. We are also interested in transition to the world of work. Barriers to employment persist even for highly educated well-published autistic academics and this is a particular concern for PARC. Advances in Autism is working on a special edition which focusses on the workplace and we look forward to contributing.
I am delighted to announce the publication of Issue 2 of Advances in Autism, with a special edition on “Inclusive educational practice for autistic learners” (Part 2). It is a timely edition, with World Autism Awareness Week 2019 just around the corner, and is led by Guest Editors Professor Nicola Martin and Dr Damian Milton.

According to the UN sustainable development goals, obtaining a quality education is fundamental to improving quality of life. This co-produced special edition showcases examples of good practice in education and analyses how to work effectively with autistic learners. Framing autism as positive and enriching, the authors and editors demonstrate that there is much to learn and gain from the experiences that autistic people encounter in inclusive learning environments.

A particular strength of this special edition is that the voices of autistic people are present at all levels; from the research itself, to the autistic scholars who have conducted and written the research, and of course the valuable perspective of the co-guest editor.

In the words of the National Autistic Society, we need to work “to create a society that works for autistic people.” By sharing experience and best practice, we can contribute to this by creating educational environments that work for autistic people, so they can thrive at all levels of education. I am sure that the research we see in this edition will enrich the knowledge base of educators and researchers alike, and I am delighted to see this showcased in Advances in Autism.

Web reference


www.un.org/sustainabledevelopment/education/
Participatory autism research with students at a UK university: evidence from a small-scale empirical project

Kenneth Andrew Searle, Liz Ellis, Marianthi Kourti, Andrea MacLeod, Caroline Lear, Callum Duckworth, Davide Irvine, Harry Jones, Michaela King, Jessica Ling and John Simpson

Abstract

Purpose – The purpose of this paper is to address the benefits of a participatory approach to autism research, demonstrating the positive effects of giving autistic project assistants (PAs) the opportunity to design and undertake a project researching the experiences of autistic university students.

Design/methodology/approach – A participatory approach was implemented, engaging autistic university students as research assistants. All the research team except project co-ordinators were autistic. Undergraduate autistic students developed and conducted a set of semi-structured interviews, with two autistic alumni responsible for data analysis and both scheduling and moderating focus groups. Participation in dissemination of the findings was open to all.

Findings – The results included in this paper reflect a portion of the overall findings, specifically regarding the participatory approach. The findings of the study indicate the perceptions of respondents being interviewed by autistic researchers in relation to their shared understanding, facilitating positive feelings and a sense of rapport in the interview process. The PAs were able to improve their research skills through the project, which contributed constructively to their CV and allowed them to feel more positive about being autistic, and specifically about being an autistic researcher.

Originality/value – This paper is one of the first to discuss the challenges and benefits of including autistic participant researchers at all stages of the research project, including research design, data collection, analysis and dissemination, being co-written by both project co-ordinators and autistic project researchers.

Keywords Autism, Higher education, Research design, Inclusion, Participatory research

Paper type Research paper

Introduction

Participatory research can be understood as both a range of methods and an ideological perspective, defined by Bergold and Thomas (2012) as “planning and conducting the research process with those people whose life-world and meaningful actions are under study” (see also Vincent et al., 2016). It has at its core the belief that subjects with directly relevant experience to the research enquiry should act as key partners within the research process, with their opinions, skills and knowledge being integral to undertaking both the methodology and drawing conclusions. Cornwall and Jewkes (2000, p. 1667) have praised the process, noting that “the key difference between participatory and conventional methodologies lies in the location of power in the research process” (see also Macaulay, 2017). Specifically, Pellicano et al. (2014) have spoken of the need for a “greater involvement of the autism community both in priority setting and in research more broadly to ensure that resources reach where they are most needed”, indicating the need for a participatory approach in autism research. Previous research focussing on the experiences of autistic students has already been undertaken at a range of colleges and universities helping to bring about support groups and break down social barriers (see Brosnan and Mills, 2016; Van Hees et al., 2015).
Within this paper, we discuss how autistic students studying at the university under investigation were re-positioned as researchers within a project which aimed to understand and the autistic student experience, as well as being aware of how to counter the barriers around this. Unlike many projects, the students were involved in all stages of the research, including problem identification, interview design and adaptation where necessary, data gathering and participant feedback, data analysis, report writing and dissemination. They also participated in the production of an educational resource, which was one of the main outcomes of this study (Authors, 2016). Rather than employing a non-autistic team, the project assistants (PAs) and project researchers (PRs) were autistic adults.

In undertaking a participatory research project, we were careful to provide the PAs and PRs with autonomy in undertaking the project. Not only did this ensure that they would be able to exercise a degree of control “in priority setting and in research more broadly” (Pellicano et al., 2014), but also they would equipped in the relevant research skills. It was also felt, as reflected in previous studies (Madriaga and Goodley, 2010), that a participatory research methodology would be able to “connect researchers with relevant communities [in order] to achieve shared goals” (Fletcher-Watson et al., 2018). As such, we were able to give the sense that we were “working with rather than for the autistic community” (CRAE IOE, 2018), allowing participants to feel open when discussing their experiences as students with autism given that the PAs and PRs were able to empathise with their situation as an autistic student at the same university. Prior to proceeding, it is important to point out that the participatory research put forward within this project was atypical to other understandings of the process as a method, as the respondents selected to take part in the research were not those taking part in the research. Nonetheless, although the participants selected were both students and recent alumni from the same UK university, they were representative of the community we wished to work with. While much of the data accumulated was important in providing a resource for autistic students and identifying the specific needs of autistic students at university level, this paper will principally be focussed around the nature of participatory research when working with students with autism.

**Participatory research**

The framework for the research project was designed and developed according to the main principles of the participatory approach. A participatory approach refers to the inclusion of participants within the research process in such a way that they benefit from it and that it reflects their opinions and experiences. Existing disability research has been extensively critiqued, with arguments made including that it “has taken place within an oppressive theoretical paradigm and within an oppressive set of social relations” (Stone and Priestley, 1996, p. 699). Participatory research entered the field of disability and mental health research, when disabled people started to request “a more pluralist and eclectic approach to theorising and researching disability” (Daniell and Woodhams, 2005, p. 281), contending that their rights in the decision-making process that was related to them were being undermined. Participatory research views participants were not viewed as passively co-operating, but as actively forming the final product. It is therefore critical for the participants to act as engaged co-researchers, whose opinion is present in every and every stage of the process (Goodley and Clough, 2004). Within autism stakeholder communities, this development has been greeted with “widespread unease” (Pellicano and Stears, 2011, p. 271). As an autistic researcher, Milton (2014, p. 794) has noted, however, that “it is the voices and claims of autistic people regarding their own expertise in knowledge production concerning autism that is most recent in the debate, and traditionally the least attended to”. The nature of the social and communication difficulties of autistic individuals may make some (non-autistic) researchers sceptical of the ways in which they might be able to include them in the current research process through perceived difficulties of working within the usual research paradigms (Waltz, 2007). However, this absence of representation from autistic individuals in research deprives the research community of the important and novel insights that autistic people can bring.

There are many benefits of adopting a participatory framework for autism research, as the involvement of autistic adults in research allows autism studies to be more “translational and sustainable” (Wright et al., 2014, p. 1). The insight of autistic people is, therefore, of the utmost
importance in order for the research community to have access into their unique way of thinking. As MacLeod et al. (2013, p. 407) stated, “the research field stands to benefit significantly from [the autistic researcher’s] involvement”. Rather than forcing autistic researchers to behave in a more non-autistic manner, Milton and Bracher (2013) have instead suggested that autistic adults should take a researching approach that accounts for their specific needs and desires, rather than perceiving themselves within part of a “problematic interpretation” (p. 69). As a result, a participatory framework can act as a meaningful methodology to help understand and find out more about the lives and experiences of autistic people.

The application of a participatory framework, however, presents a number of barriers. For instance, participatory research requires a high level of commitment from the participants, as their opinions will be needed in all stages of the research process. This high level of engagement is not always a welcome process for participants as issues of time, confidence and interest in the process may present complexities to their participation to the research project. To counter these concerns, the project co-ordinators ensured there was ongoing communication, usually via e-mail but face to face if people preferred, reminding the PAs and PRs of upcoming tasks and of their ongoing responsibilities in order that PAs and PRs could anticipate busy periods and flag up any difficulties in good time.

Fieldwork

The participatory research under discussion in this paper centres around a project undertaken at a Russell Group university in the UK. The overall aim of the project was to explore and respond to perceptions of the autistic student experience and draw awareness in relation to the current barriers preventing them from achieving their full potential while studying at the university in question. In order to do so, this project undertook a small-scale peer-to-peer consultation with a purposely selected participant group of people with autism. Among the participants selected, 13 per cent identified as LGBTQ, 65 per cent were aged over 21 years of age, 35 per cent were distance learners, 38 per cent had repeated a year and 59 per cent had multiple disabilities. An essential aspect of the project was the engagement of autistic students as PRs and PAs as co-creators of the project. Through undertaking a participatory action research approach, it was hoped that our results would provide a greater understanding of the direct challenges faced by autistic students at the specific institution and the need for an appropriate team to work on finding potential solutions and building specific ways forward. Through having autistic members in the team, we hoped that respondents would be more likely to view the interview process as an understanding environment in which they could speak candidly, also being unafraid to ask for help. As a secondary outcome of this project, we hoped that students at the university in question would have the opportunity to meet other autistic people they would not meet otherwise, therefore enabling them to form a greater number of social bonds. Through this process, we were able to move away from an “architecture of containment” (Gabel and Miskovic, 2014, p. 1145) – namely, the controlling of disability through difference in the university space – to present a more inclusive design.

Methodology

Interviews for the role

From the outset the project had at its core a desire to adhere to a participatory approach. However, the project co-ordinators recognised that the research team also needed to have a certain level of commitment and interest in the topic. Interested parties were asked to send their CV and a covering letter, from which a short list of candidates was produced. Following interviews, five autistic students were employed as PAs, and two autistic alumni were employed to conduct focus groups and analyse interview data as PRs. These were paid roles under formal contract, offering a good incentive for both the purposes of recruitment and reinforcing the students’ responsibilities within the role, and situating the PAs and PRs as equitable contributors to the work of the project. Additionally and of no less importance, it provided valuable paid work experience.
Piloting, induction and training

Prior to undertaking interviews, the PAs were given support, guidance and training on key research skills and issues such as confidentiality, safeguarding, lone working, consent, questioning and probing, and notetaking from the project co-ordinators. This ensured that the PAs were confident and knowledgeable about the interview process, that participants and PAs were kept safe, and that the data collected would be a valid account of the participants’ experiences.

Interviews were also piloted with autistic alumni, which gave the PAs an invaluable insight of what to expect in the interview and confidence in dealing with the unexpected, as well as the relevant knowledge and skills associated with the research process more broadly. Former students from a range of backgrounds, including distance learners and alumni wishing to continue in higher education, were interviewed in order to provide a variety of different experiences. Following feedback from pilot interviews in which respondents noted they were at times unsure of what response to make, the team decided it would be appropriate to provide a spider diagram of potential responses to act as prompts and conversation starters. Although this may raise concerns with the reliability of responses it was felt that the spider diagram with its visual/written responses would help respondents get into the flow of the conversation, rather than being daunted by the questions and feeling frustrated that they were not able to answer. In the same way that a researcher might verbally prompt a respondent, the spider diagram provided a visual/written prompt. This was especially the case since some guide was requested by participants during the piloting stage. Additionally, not all participants referred to the spider diagrams.

Another recommendation which emerged from the pilot interviews was the need to provide participants with the questionnaires before the interview. In both cases, participants were able to consider their responses as well as being provided with prompts if unsure what to say, taking off some of the pressure of being put on the spot in an interview situation. It was agreed that the focus group would be online rather than face to face, meaning respondents would feel more relaxed in giving their responses and PPRs would not have to worry about the challenges of facilitating such a large group. Also it meant that the focus group could take place over a number of days rather than a short, specific point in time, meaning logistically more people could contribute.

The PAs and PPRs used prompting and probing appropriately and built up a rapport with participants within the interview process. As semi-structured interviews were being undertaken, the discussion was able to be advanced when relevant, ultimately allowing for the provision of rich data concerning the student experience. As they were working in a supportive environment with project co-ordinators with a unique understanding of their particular needs, they could build their own confidence in terms of time management and working within a broader team.

To evaluate the impact of the participatory model on participants and PAs, respondents were asked to complete a feedback form after each interview and PAs were asked to reflect on their role as an interviewer, which was done through group discussions on the online team area throughout the project, through individual e-mail responses to set questions generated by the research team. Additionally, co-ordinators exchanged reflections and logged key points that arose.

Preparing participants

All participants provided written informed consent to take part in the project before the interviews began. Additionally at the start of each of the three interviews verbal consent was taken and participants were reminded that they did not have to answer all the questions and that they could stop the interview at any time. Participants were also made aware that they could withdraw their involvement in the project up to a given point in time. Additionally, on completion of an interview participants were also provided with a small gift voucher as a thank you for giving up their time to take part in the project. The research took between September 2015 and July 2016, with a round of interviews taking place each term.

Rather than the interviews being offered in a face-to-face format only, it was felt that it would be easier for some of the respondents if this could be done over Skype or via Canvas, the university’s Virtual Learning Environment, as well as over the telephone. It was expected that most students would opt for an online (typing using the chat facility on Skype) interview, but this did not prove to
be the case, as most students preferred a face-to-face interview. This brought about unanticipated consequences in terms of arranging interview spaces and extra time to transcribe the interviews.

Data gathering

Similar to Madriaga and Goodley’s (2010) longitudinal study of autistic students in higher education, the project took place over the course of a year, providing a full understanding of how the experiences of the respondents – in both their social lives and their working lives – developed over the academic year. The interviews were conducted with 19 students. All of the respondents were diagnosed as autistic prior to attending university. There were respondents in their first, second, third and fourth years as undergraduates, as well as postgraduate students undertaking master’s and doctorates. Students came from a mix of ethnic backgrounds but most defined themselves as white British. There was a mixture of men and women, as well as two people who defined themselves as non-binary. More than half the participants defined themselves as having a difference, disability, specific learning difficulty or long-term health problem, in addition to autism.

There were three rounds of interviews spread across the academic year. The first round of interviews focussed on transition into university; the second phase explored the students’ experiences once they had settled down somewhat to university life; and the third allowed students to look ahead to the future and reflect back upon their academic and personal achievements. The interview questions emerged as a collaboration amongst the research team (PAs, PRs and project co-ordinators) rather than being pre-determined by the non-autistic project co-ordinators. We looked at both academic and social life and PAs were encouraged to develop an ongoing research conversation with the participants. The interviews lasted between ten minutes to a little over an hour.

Following the interviews, the PRs moderated termly online focus groups asking the students to elaborate on key themes from the interviews. In the first term these were more open-ended, allowing respondents the opportunity to speak and get to know one another. By the second term, however, there was more of an emphasis on finding specific information around the key themes raised, and to encourage suggestions and ideas regarding the content of an online autism awareness resource specific to the university in question.

Data analysis

The two PRs undertook a thematic analysis of the interview transcripts, identifying the most common themes such as dealing with stressful situations, the desire for specialist mentors or the pressure to finish assignments. In doing this, the research team was able to understand the most important issues to the students. Analysis took place on a termly basis, so we could assess how the students had experienced change. In doing so, we were able to assess relevant changes to the respondent’s experiences as students at the university as well as issues which were of continued importance throughout the year.

Dissemination

Often research that purports to be participatory does not include research participants in the dissemination process. However, in this project participants were involved in report writing, presentations at conferences and seminars, and in creating a video documenting participants’ experiences at university and a website resource. Participants, as well as PAs were also asked to comment on final drafts of documents and to preview videos and websites. Furthermore, we played to the strengths of the individuals so those who were more artistic could contribute visually, whereas those who were more confident in public speaking took part in videos and presentations.

Results

The project itself was extremely successful, providing much-needed data about the relevant facilities that needed to be improved to cater for the needs of students with autism regarding both their studies and everyday lives. An online database was collated, providing both students and
lecturers with an understanding of what was expected of the university in terms of helping students. Following the interviews, participants, PAs and PRs and project co-ordinators evaluated the interview process and their involvement in it, providing further reflection on the participatory research more broadly.

**Participant evaluations**

Evaluations initially sought general participation feedback on accessibility of the interviews. All of the respondents found the meaning of questions clear and the environment and format accessible, with one participant commenting, “I liked that I was asked what else I thought the university could have done because it meant I got to put forward some of my ideas”.

Subsequently, the evaluation was focussed on the peer-to-peer aspect. Most participants were positive about being interviewed by an autistic peer, and suggested that as a result they were more forthcoming in their responses. Specifically, one respondent noted that “it’s nice to meet people who can empathise with what you go through or can give advice because they experience similar things”, thus showing how participatory research has been able to provide a shared understanding and heightened feelings of trust, ensuring that participants were more likely to disclose relevant information. Another respondent agreed, commenting how “there is a greater likelihood of mutual understanding” through being interviewed by a researcher with autism. Further to this, one participant noted that they “felt more comfortable because I didn’t have to explain any of my quirks as they were accepted as part of my autism. I didn’t have to feel embarrassed about any of the support I needed or any of the difficulties I was having because the interviewer had that personal understanding”. Equally, another participant greatly appreciated the way it was “interesting to share thoughts and experiences with someone who knows my situation a bit more than most people”, reinforced by a further comment that “meeting other students [with autism] reinforces the fact that I’m not the only one out there”. One participant also praised the project’s methodology, stating that it was a “very good way the interviews were set up and the flexibility with which these were handled”.

In feedback, respondents noted how relaxed the process allowed them to feel, despite talking about material of a personal nature. Eight participants explicitly cited specific ways in which the interview had made them feel positive about themselves and their abilities, five of whom directly attributed this to the interviewer style, praising PRs for having “really helped me reflect on my time at university”. One respondent put it explicitly in terms of the interviewer being able to get the best answer out of them, noting that they “really appreciated the way that the interviewer helped me come up with better answers to my questions”.

Since this project was born out of discussions surrounding the potential demand for an autistic peer advocacy network, the evaluation also included questions relating to the peer contact that had been available during the project. The advantages of this process were noted by one participant who commented that “it would be good to meet others on the autism spectrum because it’s a good way of learning from each other and learn social cues in a safe place”.

Regarding spending more time with autistic peers, four of the participants said that they would have appreciated more peer contact within the project, one noting that “it would be great if there were more opportunities to meet people on the autism spectrum”. Equally, participants were also happy that they got the chance to meet other autistic students, with one participant noting “it has been both interesting and helpful to meet other students on the autism spectrum and to share coping strategies and experiences, I feel like I have made one good friend though this project and that has been amazing, it’s helpful to have people who understand my needs without me having to give long explanations”. However, although a Christmas party and end of project gathering were arranged, if conducting this or a similar project in the future it is recommended that additional time, space and resource can be built into the project so that participants were able to meet and share experiences outside of taking part in the “project proper”. This point was re-enforced further by the comment that, “perhaps there could have been more opportunity outside of the project to meet up with other autistic students and share experiences which could help with the project information gained”.
**Project assistant reflections**

After the end of the project, PAs were asked to reflect on their involvement in the process. The PAs most common responses included having greater confidence and skills as a result of participation in the project, often arising from interviews that had not going as planned (e.g. late starts and cancellations). They also mentioned the need to be sensitive to the needs and personal disclosures of the participants, as well as the usefulness of the prompt sheet in keeping the interviews on track. When asked what could have been done differently, one of the most common responses was how their role as a PA in this project has influenced their attitudes towards being autistic, noting how “it has widened my view of autism, and I have come to realise that even autistic people are sometimes only limited to their personal experiences as something to judge autism”. More significantly, they were in touch with other peer contacts whom they hoped to stay in touch with after the end of the project. For example, one participant commented that had been “able to make friends I wouldn’t have been able to make in other circumstances”. As mentioned above by the project participants, there was a desire for more opportunities for get-togethers and social interactions to take place. Nonetheless, the significance of a need for “shared experiences and a sense of belonging to a group” was of importance to PAs, allowing them to act as empowered researchers without being forced to compromise their identity as autistic people.

**Co-ordinator reflections**

Co-ordinator reflections highlighted both the challenges and benefits of the project, which often went beyond those which had been anticipated. They spoke about the need to have significant time commitment for support and organisation, especially in the early stages and the need for flexibility to accommodate the changing needs of the PAs and participants. They noted that recruiting a larger team than planned was beneficial, as PAs could cover each other during periods of heavy workload and broader stresses. PAs were involved in many aspects of the project, brought a broad skill set and range of ideas to the design and delivery of it and were more involved than anticipated from the early stages of the project which often needed creative approaches which required a time commitment from all parties. Finally, they highlighted that all project members learned from each other both specific skills and perspectives relating to being autistic and they had the opportunity to gain positive work experience and develop various academic skills through this project. The co-ordinators found working in this team a very positive experience.

**Discussion**

Overall, this project aimed to, and has succeeded in allowing the principles of participatory research to act an emancipatory space, allowing for autistic people to be involved in priority setting and collating broader research. Though the majority of individuals on the team were autistic, which is missing within most of the current autism research, and the data collection was conducted exclusively by them. Furthermore, we ensured that the autistic respondents were active collaborators in the process, rather than passively co-operating subjects. Both the participants and the PAs felt that this was an opportunity for them to connect with other autistic students and form relationships with them, allowing them to build networks and form friendships for the future. As both PAs and respondents said that they would have liked to have had more of an opportunity to interact with each other, this would be something that we would hope to pursue with future projects, therefore ensuring that there could be additional opportunity for further networks to be built.

Although this project can be criticised on account of the fact that the co-ordinators were not autistic, it was through the PAs, who were all autistic people, that the design, questions, interviews and data collection were undertaken. The only roles conducted solely by the non-autistic co-ordinators were in writing the funding application and managing the budgets. In allowing the research process to be planned by the PAs alone, as such, their skills, confidence and knowledge of the research environment have developed through this project, not only
allowing them to be more advanced in both collecting and analysing data, but also clearly demonstrating that being a person with autism is not an obstruction to having a future academic career or becoming a strong researcher more broadly.

Despite what has been achieved with this project, it is very important to take into account that the PAs were also university students, many of whom were juggling many competing demands, during the duration of the project. At certain times, therefore, it had to be borne in mind that team members might need to take a step back from the project and focus on their academic studies, for fear of being overloaded. At these points, therefore, it was critical to maintain the co-ordinator roles in order to ensure that the project could remain on track.

As well as being interviewed by other autistic individuals it was also important that the PAs and PRs were students (or recently graduated alumni) of the university in question. As well as being able to build rapport and prompt and probe appropriately in relation to autism the shared understanding of being a student at this particular university was also important. As such, for these participants, autism should be understood in the context of the student experience. This level of understanding was a relevant and valuable point within the project as a whole, acting as a consistent reminder that, when engaging in participatory research, it is important to take into account the complexities of autism, in terms of there being a range of complementary or competing identities, such as other mental health issues, sexuality, race and gender.

Overall, this project has acted as an important step towards investigating the experiences of autistic university students, in both their studies and their social lives. In following Madriaga and Goodley’s (2010) separation between the two in our questioning, we were able to understand the significance of these complexities more prominently. It also allows us as researchers to evidence a range of benefits that have arisen from the project’s adoption of a participatory framework in autism research, overcoming the negative discourse relating to such an approach as being regarded as problematic.

Conclusion

In the implementation of a participatory approach, this project has been able to investigate the experiences of autistic university students in a comprehensive and clear manner. The PAs and PRs were autistic individuals, who not only conducted the interviews but also engaged with the data analysis and were involved in the dissemination of the outcomes of the project after its completion. The participatory approach was described as very beneficial both by the research team and the participants, allowing it to foreground autistic voices throughout the project, increasing the research experience and confidence of the team, which, in turn, led to very positive links within various members of the team, both professionally and in terms of friendships. Overall, we believe that adopting a participatory approach was very beneficial to the outcome of the project, strengthening the validity of the results and its ultimate outcome, and helped us to conduct research that was engaging, relevant and empowering for the participants and the team. Ultimately this project exists as a model for future work within research on autism that wishes to provide a participatory approach.

References

Authors (2016).


**Further reading**


**Corresponding author**

Kenneth Andrew Searle can be contacted at: searleken@hotmail.co.uk
Impact of training in Autism on inclusive practices

Amy Dympna Nolan and Elizabeth Fraser Selkirk Hannah

Abstract

Purpose – The purpose of this paper is to evaluate the impact of training on educational staff attitudes, sentiments, concerns and efficacy in providing support for children with Autism in mainstream settings.

Design/methodology/approach – The investigation adopted a pre-test/post-test, quasi-experimental, within-subject research design. In total, 35 early years educators, teachers and pupil support assistants from one Scottish Local Authority (LA) undertook training delivered by the LA’s Communication and Language Outreach Service. Measures included the Sentiments, Attitudes, and Concerns about Inclusive Education Revised (SACIE-R) scale and the teacher efficacy for inclusive practices (TEIP) scale pre and post-training. Post-training participants completed a questionnaire employing open and closed questions to assess perceived usefulness of training, application of knowledge and effectiveness of the teaching strategies.

Findings – Combining data from the three sectors there was a significant change in staff efficacy for inclusive practices ($z = -3.406, p = 0.001, p < 0.05$, with a medium effect size $r = 0.41$) although there were differences between the sectors. There was a significant change in SACIE-R total scores ($z = -3.945, p = 0.000, p < 0.05$; with a medium effect size $r = 0.47$), sentiments ($z = -2.763, p = 0.006, p < 0.05$; with a medium effect size $r = 0.33$) and concerns ($z = -3.685, p = 0.000, p < 0.05$; with a medium effect size of $r = 0.44$) subscale scores for the combined sector data. There was no significant change in the attitudes subscale scores for the combined sector data ($z = -1.106, p = 2.69, p > 0.05$; with a small effect size $r = 0.13$) although there were differences between the sectors.

Research limitations/implications – Limitations include: small sample size, minor differences in the training in different sectors, purposeful sampling, use of questionnaire post-training, variability of completion of SCAIE-R and TEIP post-training.

Originality/value – There appears to be limited research into inclusive practices for children with Autism in the UK context, which this study aims to address.

Keywords Attitudes, Autism, Training, Inclusion, Teacher efficacy

Paper type Research paper

Introduction

There are various policies and legislation that promote inclusive education. On an international level, the Salamaca Statement and Article 24 of the United Nations Convention on the Rights of Persons with Disabilities advocate inclusive education for children with disabilities (UNESCO, 1994; UN, 2006). This is echoed at a UK and Scottish level, with legislation, policy and curricular developments promoting inclusion and inclusive practices, e.g. the Equality Act 2010, the Standards in Scotland’s Schools, etc. Act 2000.

Translating legislation and policy into practice at school level is key to successful implementation of inclusive practices (Sharma et al., 2006). In recent years, there has been a clear shift in research on inclusive education from justifying inclusive approaches to consideration of how it can be achieved (Forlin, Sharma and Loreman, 2014). Sharma et al. (2006) suggest that in order to be successful inclusion needs commitment from all stakeholders including governments, teachers and schools. Similarly, Avramidis and Norwich (2002) propose that the views of personnel implementing inclusion are important for successful implementation. Research indicates that teachers’ attitudes and beliefs are vital factors (Avramidis et al., 2000; Avramidis and Norwich, 2002; Rakap and Kaczmarek, 2010).
**Teachers’ attitudes, sentiments and concerns about inclusive education**

A strong predictor of the success of inclusive education is positive attitudes from educators towards the inclusion of pupils with additional support needs (ASN) in the mainstream class/school (Forlin et al., 2011). Attitudes can be defined as stable learned dispositions resulting in responses to a person, situation or other prompts which are constant in nature (Corsini, 1999). Teachers with positive attitudes towards inclusion adapt the way they work to meet the needs of pupils (Boyle et al., 2013; Sharma et al., 2008; Sharma et al., 2006); and teachers with positive attitudes towards the inclusion of pupils with ASN in the mainstream setting can positively influence the attitudes of pupils towards their peers with ASN (Nowicki and Sandieson, 2002).

Several factors influence educators’ attitudes towards the inclusion of pupils with ASN. Avramidis and Norwich (2002) suggest these can be grouped into child-related variables, teacher-related variables and educational environment-related variables. Child-related variables include the type and complexity of ASN (Rakap and Kaczmarek, 2010). For example, Avramidis and Norwich (2002) report that teachers displayed more positive attitudes towards the inclusion of pupils with physical needs compared to pupils with social, emotional and behavioural needs.

Teacher-related variables include grade level taught, stress levels, experience of contact with pupils with ASN and training. Research suggests that grade level or school stage taught has an influence on teachers’ attitudes to inclusive education which becomes more negative as school stage level increases (Rakap and Kaczmarek, 2010). This finding could be attributed to a greater focus on subject matter at later school stages (Round et al., 2016), a bigger teacher team, mounting performance pressure (Belić et al., 2017) and increased stress levels (Galaterou and Antoniou, 2017). Teachers’ experience of working with a child with ASN in a mainstream setting has been found to influence their attitudes (Avramidis and Norwich, 2002; Belić et al., 2017). This has been attributed to an increase in teachers’ confidence and mastery skill levels (Le Roy and Simpson, 1996; Villa et al., 1996) and hence the importance of training for teachers in supporting pupils with ASN (Avramidis and Norwich, 2002; Forlin, Loreman and Sharma, 2014; Sharma et al., 2008).

Educational environment-related variables include physical and human supports (Belić et al., 2017; Rakap and Kaczmarek, 2010; Round et al., 2016). Physical support includes resources, a restructured environment and teaching materials. Human support includes specialised teachers, pupil support assistants and agencies such as Educational Psychology and Speech and Language Therapy (Avramidis and Norwich, 2002). Avramidis and Norwich (2002) literature review found consistent support for restructuring the mainstream environment to include pupils with ASN. Obstacles to inclusion were lack of resources such as time and human resources (Avramidis et al., 2000).

Previous research has linked teachers’ sentiments and concerns to teachers’ attitudes towards the inclusion of pupils with ASN (Forlin et al., 2011; Sharma et al., 2006, 2008). Sharma et al. (2006) describe sentiments as levels of comfort/discomfort interacting with a person with ASN. Loreman et al. (2007) propose that in order to ensure successful inclusive practices it is important that teachers develop positive sentiments about inclusion. There is some evidence that educators’ sentiments and concerns about a pupil’s ASN correlate with successful inclusive practices (Forlin et al., 2011). Research has found a negative correlation between participants’ concerns and attitudes to teaching in inclusive environments in that positive attitudes towards inclusive education correlate with fewer concerns (Changpin et al., 2007). Educators’ concerns include a perceived skills deficit in teaching pupils with ASN and a lack of resources (Agbenyega, 2007).

**Teacher efficacy**

Bandura developed self-efficacy theory in the 1970s. The following decade, social cognitive theory focussed on the important role of cognitions in learning and behaviour with self-efficacy remaining a key component (Bandura, 1986). Bandura (1997) describes self-efficacy as the belief an individual has about their own capabilities and suggests that four main sources affect efficacy beliefs and ultimately behaviour. These are mastery experiences (a person has shown capability in a task and believes they will be able to do this in the future), vicarious experience (human modelling), social persuasion (being told by another person that they have the ability to perform well) and physiological arousal (arousal from our senses) (Bandura, 1986).
In order for teachers to implement inclusive practices, Forlin, Sharma and Loreman (2014) suggest they must hold self-efficacy beliefs. Judgements about teaching tasks and the learning environment are influenced by teachers’ perceived efficacy (Bandura, 1997). Furthermore, Sharma et al. (2012) deduce that high teacher efficacy in implementing inclusive practices leads to the belief that pupils with ASN can be taught in the mainstream class effectively and vice versa. They advocate that teachers’ actions are influenced by their perceived efficacy and high teacher efficacy is described as an essential component of an inclusive environment.

A number of researchers have postulated a link between perceived teacher efficacy for inclusive practice and attitudes (Boyle et al., 2013; Forlin et al., 2009; Forlin, Sharma and Loreman, 2014; Sharma et al., 2012). Forlin et al. (2009) found that the best predictor of pre-service teachers’ attitudes was confidence in teaching in inclusive environments and proposed that initial teacher education should focus on improving the efficacy of their students in inclusive educational practice. Similarly, Sharma et al. (2012) state that an improvement in pre-service teachers’ attitudes towards teaching in an inclusive environment is related to perceived teacher efficacy. Boyle et al. (2013) also emphasise the importance that teacher attitudes play in achieving successful inclusive practices. Boyle et al. (2013) UK study suggests that training in special education can have a positive impact on teachers’ inclusive practices. Similarly, Forlin, Loreman and Sharma’s (2014) study on professional learning about inclusion in Hong Kong conclude that positive gains were made in teachers’ perceived efficacy in inclusive practices post-training. Also, Forlin, Sharma and Loreman’s (2014) found that a course in inclusive education was successful in improving perceived teacher efficacy for inclusive practice regardless of demographic variables.

However, Wyatt (2014) highlights that several research studies conducted on teacher efficacy pre 1997 had construct validity issues. Tschannen-Moran et al. (1998) state that early research on teacher efficacy focussed on general teacher efficacy (GTE) and personal teacher efficacy (PTE). GTE refers to a teacher’s belief about teachers’ efficacy in general whereas PTE refers to a teacher’s belief about their own efficacy. Bandura (1997) claims that teachers’ beliefs about their personal efficacy should be measured rather than GTE, as external control is unrelated to self-efficacy. As a result of this, papers post 1997 have focussed on PTE.

**Teacher efficacy in teaching pupils with Autism**

Autism is a spectrum condition and common in the UK (NAS, n.d.). Based on two prevalence studies since 2006, it is suggested that 1.1 per cent of the population in the UK may be on the autism spectrum (NAS, n.d.). Children with Autism have language and communication difficulties including difficulties with social interaction, thinking and communication (Baron-Cohen, 2008; Emam and Farrell, 2009; Lo et al., 2014; McGillicuddy and O’Donnell, 2014). These difficulties may impact upon a child’s ability to access mainstream education, and it is vital staff have the knowledge and skills to meet their needs.

Increasing numbers of children with Autism are being educated in mainstream provisions (Emam, 2014). However, there appears to be a paucity of research investigating teachers’ self-efficacy in relation to teaching pupils with Autism. Lo et al.’s (2014) study on teachers’ perspectives on teaching pupils with Autism found higher efficacy levels in teachers who had more confidence, fewer concerns, and more experience in teaching pupils with Autism. A Scottish study by McGregor and Campbell (2001), investigating teachers’ attitudes to the integration of Autistic pupils in mainstream schools, found that teachers who had previous experience of teaching pupils with Autism were more confident than those without that experience.

Previous studies have found differences in teachers’ attitudes towards inclusive education linked to school stage but have not focussed on the views of pre-school staff.
Furthermore, there is a gap in research in inclusive practices in relation to Autism in the Scottish context. Although McGregor and Campbell (2001) focussed on teachers’ attitudes to the integration of pupils with Autism in the mainstream school, Forlin, Sharma and Loreman (2014) state that research on inclusive education is shifting from justifying approaches to focussing on how to make schools more inclusive. Thus, the present study focusses on differences in staff attitudes to supporting children with Autism by sector and the impact of training on staff’s knowledge of strategies to support inclusive practice in relation to children with Autism in the Scottish context.

The study aimed to assess the impact of a training programme on:

1. school staff’s attitudes, sentiments and concerns in supporting pupils with Autism in the mainstream class/school, and whether there are differences between staff groups in the different sectors; and

2. school staff’s efficacy in supporting pupils with Autism in the mainstream class/school, and whether there are differences between staff groups in the different sectors.

The third aim was to investigate:

3. school staff’s perceptions of the usefulness of the training, application of knowledge, and effectiveness of strategies.

Method

Design and ethics

The study adopted a pre-test/post-test, quasi-experimental, within-subject research design. A number of ethical considerations were incorporated into the design of the study including: informed written consent, participants having the right to withdraw from the study at any time and anonymity of participants. The study was approved by the ethics committee of the authors’ education institution and permissions at local authority (LA) and school levels.

Participants

Sampling was purposive. Participants, drawn from five educational establishments in one LA in Scotland, were recipients of training provided by the pre-existing LA’s Communication and Language Outreach Service (COS). The researchers were not involved in the delivery of the training. All participants had previous experience working with pupils with ASN within a mainstream establishment. In Scotland, in 2017, there were 183,491 pupils with ASN. Most pupils with ASN are educated in mainstream establishments (Scottish Government, 2017); thus, all the participants would have experience working with children with ASN. A total of 35 participants completed pre and post-intervention measures (17 from nursery sector, 5 from primary sector and 13 from secondary sector). Experience ranged from 3 years to >21 years (nursery), 1 year to >21 years (primary) and 3 years to >21 years (secondary).

Table I details participants involved in training. In the nursery sector, four of the participants were heads or depute heads; in the primary sector, one of the participants was the head teacher; and in the secondary sector, there was a deputy head teacher and a principal teacher.

<table>
<thead>
<tr>
<th>Table I</th>
<th>Participants in training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector</td>
<td>No. of establishments</td>
</tr>
<tr>
<td>Nursery</td>
<td>3</td>
</tr>
<tr>
<td>Primary</td>
<td>1</td>
</tr>
<tr>
<td>Secondary</td>
<td>1</td>
</tr>
</tbody>
</table>
Staff cover impacted on numbers able to take up places in two of the nurseries. One primary participant did not attend all the training and did not complete the measures. The clerical staff member in the secondary school did not complete the pre- and post-measures as they were aimed at teaching and support staff.

Training

The pilot training programme was developed and implemented by the LA COS in five schools from the nursery, primary and secondary sectors. The COS comprises teachers with extensive experience of working with staff in educational establishments to support the inclusion of pupils with communication and language difficulties. The overall approach to the training was underpinned by Bandura’s social cognitive theory, and utilised three of the four sources of self-efficacy, namely mastery experiences, vicarious experiences and social persuasion. It aimed to:

- develop a shared understanding of how a child with Autism experiences the world and what underlies behaviour and development;
- provide guidance on how to improve communication with children who have Autism;
- coach staff in analysis of behaviour in order to develop communication centred strategies that will support children; and
- provide an opportunity for professional dialogue to enable staff to develop universal and targeted support for children with Autism.

Nursery training was delivered over four consecutive weeks (one half-day session and three 2 h twilight sessions). The primary and secondary training comprised four two hour sessions over consecutive weeks, although there was an additional forward planning session for teaching staff in the secondary school. Additionally, the LA COS offered establishments termly follow up sessions to support the implementation of strategies and a consultation service via phone or e-mail. Having the training delivered over four sessions provided an opportunity for staff to consolidate their knowledge and understanding and begin to implement some of the strategies in their classes/establishments thus offering mastery experiences. Learning about different approaches from experienced teachers during the training sessions and being supported through a consultation service provided vicarious experiences and social persuasion.

The following topics were covered during the training sessions: an overview of inclusive practice in education, covering policy and legislation, conceptual aspects, evidence base, factors underpinning inclusive practice, use of inclusive language; an overview of Autism, including addressing myths and facts, the different ways in which individuals with Autism experience the world, theories, diagnosis, prevalence, learning from individuals with Autism, sensory issues; assessment of Autistic pupils in an educational setting; and teaching strategies for pupils with Autism, at class (e.g. cultivating a positive atmosphere, use of visual supports, understanding child’s behaviour, adapting the environment, addressing sensory issues) and whole school levels through carrying out audit and developing policy. A range of teaching approaches were employed by the trainers including PowerPoint slides, quizzes, video clips (e.g. individuals with autism speaking about their experiences) and presentations by current and former high school students with autism. The content and mode of delivery of the training were adapted to each sector to ensure relevance.

The head of each establishment decided who should participate in the training. Each establishment involved in the training programme was required to send at least one decision maker on the training which aligns with implementation science principles (Fixsen et al., 2005).

Measures

Two measures were employed pre- and post-intervention: Sentiments, Attitudes, and Concerns about Inclusive Education Revised (SACIE-R) scale (Forlin et al., 2011), and Teacher Efficacy for Inclusive Practices (TEIP) (Sharma et al., 2012). In addition, a Questionnaire on Knowledge of Strategies/Understanding of Needs was completed post-intervention.
Pre-intervention measures were completed before the training and post-intervention measures were administered after the training, ranging from five days to five weeks depending on school holidays and teachers’ schedules.

**SACIE-R scale**

The 15-item SACIE-R Scale (Forlin et al., 2011) has three subscales, each with five items, which measure sentiments, attitudes and concerns. The overall scale has good internal reliability (Cronbach’s $\alpha = 0.74$). The subscales of sentiments, attitudes and concerns have internal reliability scores of $\alpha = 0.75$, $0.67$ and $0.65$, respectively. The scale contains a forced choice, Likert four-point scale. When completing the scale, participants were asked to consider pupils with Autism.

**Teacher Efficacy for Inclusive Practices**

The 18-item TEIP scale was developed to measure teachers’ perceived efficacy to teach in inclusive classrooms (Sharma et al., 2012) and comprises three factors: efficacy to use inclusive instructions, efficacy in collaboration, and efficacy in managing behaviour. The scale utilises a forced choice, Likert six-point scale with $1 = $ strongly disagree, $2 = $ disagree, $3 = $ disagree somewhat, $4 = $ agree somewhat, $5 = $ agree, $6 = $ strongly agree. The scale has good internal reliability (Cronbach’s $\alpha = 0.89$). The three factors of efficacy to use inclusive instructions, efficacy in collaboration and efficacy in managing behaviour have internal reliability of $\alpha = 0.93$, $0.85$ and $0.85$, respectively. During the development of the scale, it was decided that items based on a specific label would not be included as the authors suggested that strategies that work with all students are required when teaching children of various abilities in the mainstream class (Sharma et al., 2012). However, Sharma et al. (2012) suggest that when measuring a teacher’s efficacy in relation to pupils with a specific support need, for example, Autism, the teacher can be instructed to think about the needs of a specific pupil when completing the scale. Thus, when completing the scale, participants were asked to consider pupils with Autism in their establishment as teacher efficacy is context- and task-specific (Bandura, 1997; Sharma et al., 2012; Wyatt, 2014).

**Questionnaire on usefulness of training, application of knowledge, effectiveness of strategies (Appendix)**

This questionnaire was developed to address aim 3, namely, perceptions of the usefulness of training, application of knowledge and the effectiveness of strategies.

The first author explained the purpose of the questionnaire to participants and emphasised the focus was on changes in their practice since receiving the training. All 35 participants completed the questionnaire one month after the final training session.

The questionnaire was developed by the first author and revised following feedback on the content and format by five members of COS and an educational psychologist from the LA. It employed a mixture of open-ended ($n = 6$) and closed questions ($n = 2$). The closed questions used a 1–10 rating scale and assessed the perceived effectiveness of the strategies, and confidence in supporting a child with Autism in the class/educational establishment.

**Data analysis**

The Wilcoxon signed-rank test was used to compare participants’ pre- and post-intervention scores on the SACIE-R and TEIP. Non-parametric statistics were employed as the data were ordinal and there was a relatively small sample size (Coolican, 2009).

Qualitative data from questions 1, 2 and 4 in the Questionnaire on Usefulness of Training, Application of Knowledge and Effectiveness of Strategies were analysed using thematic analysis (Braun and Clarke, 2006). The themes were identified using a deductive approach and at a semantic level (Braun and Clarke, 2006). Descriptive statistics were employed for the two closed questions (q3 and q8). The data from questions 5, 6 and 7 are not reported for the purposes of this paper.
Results

Staff attitudes, sentiments and concerns to supporting pupils with Autism

There was a significant difference in total scores post-training ($z = -3.945, p = 0.000, p < 0.05$; with a medium effect size $r = 0.47$) (Field, 2007). This indicates that educators had fewer concerns and more positive sentiments and attitudes towards supporting pupils with Autism in the mainstream class/school. Looking at the three subscales, there was a significant difference in scores on the concerns subscale post-training, indicating that participants had fewer concerns ($z = -3.685, p = 0.000, p < 0.05$; with a medium effect size of $r = 0.44$). There was a significant difference in scores on the sentiments subscale post-training, indicating that participants had more positive sentiments ($z = -2.763, p = 0.006, p < 0.05$; with a medium effect size $r = 0.33$). There was no significant difference between pre- and post-test scores on the attitude subscale ($z = -1.106, p = 2.69, p > 0.05$; with a small effect size $r = 0.13$).

Whilst acknowledging the small sample sizes, which would impact on the power of the statistical analysis, findings revealed some differences between the three sectors. There were significant differences in early years educators’ total scores post-training ($z = -3.109, p = 0.002, p < 0.05$; with a large effect size $r = 0.53$); concerns subscale scores post-training ($z = -2.807, p = 0.005, p < 0.05$; with a medium effect size $r = 0.48$), indicating that participants had fewer concerns; and sentiments subscale scores post-training ($z = -2.949, p = 0.003, p < 0.05$; with a large effect size $r = 0.51$), indicating that participants had more positive sentiments. In contrast, a significant difference was not found in the attitude subscale ($z = -0.288, p = 0.773, p > 0.05$; with a small effect size $r = 0.05$).

There were significant differences in primary teachers’ total scores post-training ($z = -2.032, p = 0.042, p < 0.05$; with a large effect size $r = 0.64$); and concerns subscale scores post-training ($z = -2.032, p = 0.042, p < 0.05$; with a large effect size $r = 0.64$), indicating that participants had fewer concerns. In contrast, there were no significant differences in sentiments subscale scores post-training ($z = -1.841, p = 0.066, p > 0.05$; with a large effect size $r = 0.58$); and in attitudes subscale scores post-training ($z = -1.134, p = 0.257, p > 0.05$; with a medium effect size $r = 0.36$).

There was no significant difference in secondary teachers’ and other staff’s total scores post-training ($z = -1.124, p = 0.261, p > 0.05$; with a small effect size $r = 0.22$). The differences in scores on the three subscales were also not significant (Table II).

Staff efficacy in supporting pupils with Autism

Across the entire sample, there was a significant difference in teachers’ and other school staff’s efficacy in supporting pupils with Autism in the mainstream class/school post-training ($z = -3.406, p = 0.001, p < 0.05$; with a medium effect size $r = 0.41$). This indicated that participants had higher levels of efficacy for inclusive practice post-training.

Looking at the three sectors, there was a significant difference in early years educators’ efficacy scores post-training ($z = -2.772, p = 0.006, p < 0.05$; with a medium effect size $r = 0.48$) and primary teachers’ efficacy scores ($z = -2.023, p = 0.043, p < 0.05$; with a large effect size $r = 0.64$), indicating higher levels of efficacy for inclusive practice post-intervention. In contrast, there was no significant difference in the secondary school staff’s scores ($z = -0.630, p = 0.529, p > 0.05$; with a medium effect size $r = 0.48$) (Table III).

Usefulness of training, application of knowledge, effectiveness of strategies

Table IV details findings from the post-training questionnaire; including ratings of effectiveness of strategies and confidence in supporting a child with Autism in the mainstream class/school. It also reports thematically on strategies that participants state they are utilising in the learning environment post-training and useful aspects of the training.

Discussion

The aims of the study are set out in the sub-section “Teacher efficacy in teaching pupils with Autism”.

Focussing on the first aim, there was some evidence of change in staff’s SACIE-R total scores when the three sectors were combined. There was a significant change in the total scores of nursery and primary participants but no significant difference in the total scores of secondary participants. This aligns with previous research which indicates that teachers’ attitudes are influenced by the school stage taught (Avramidis and Norwich, 2002), and as school age increases, teachers’ attitudes towards inclusive education get more negative (Rakap and Kaczmarek, 2010). A possible explanation is that teachers, at upper stages of education, focus more on the subject matter (Avramidis and Norwich, 2002; Salvia and Munson, 1986).

Analysis of subscale scores revealed there was no significant difference in the attitudes subscale in any of the sectors following training. This contrasts with previous research that has found that fewer concerns about inclusive education correlate with more positive attitudes (Changpinit et al., 2007), and that training is likely to have a positive influence on teachers’ attitudes (Avramidis and Norwich, 2002; Beh-Pajooh, 1992; Forlin, Loreman and Sharma, 2014; Sharma et al., 2008; Shimman, 1990). However, with the exception of Forlin, Loreman and Sharma (2014), these studies did not use the SACIE-R scale. Forlin, Loreman and Sharma (2014), employing a large sample size (n = 2361), found a small but positive impact on teachers’ attitudes post-training. In contrast, the present study had a much smaller sample size.

### Table II

SCAIE-R

<table>
<thead>
<tr>
<th>Sector</th>
<th>z-score</th>
<th>p-values</th>
<th>Effect size r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery Total</td>
<td>3.109</td>
<td>0.002*</td>
<td>0.53</td>
</tr>
<tr>
<td>Sentiments</td>
<td>−2.949</td>
<td>0.003*</td>
<td>0.51</td>
</tr>
<tr>
<td>Concerns</td>
<td>−2.857</td>
<td>0.008*</td>
<td>0.48</td>
</tr>
<tr>
<td>Attitudes</td>
<td>−0.288</td>
<td>0.773</td>
<td>0.05</td>
</tr>
<tr>
<td>Primary Total</td>
<td>−2.032</td>
<td>0.042*</td>
<td>0.64</td>
</tr>
<tr>
<td>Sentiments</td>
<td>−1.841</td>
<td>0.066</td>
<td>0.58</td>
</tr>
<tr>
<td>Concerns</td>
<td>−2.032</td>
<td>0.042*</td>
<td>0.64</td>
</tr>
<tr>
<td>Attitudes</td>
<td>−1.134</td>
<td>0.257</td>
<td>0.36</td>
</tr>
<tr>
<td>Secondary Total</td>
<td>−1.124</td>
<td>0.261</td>
<td>0.22</td>
</tr>
<tr>
<td>Sentiments</td>
<td>−0.181</td>
<td>0.856</td>
<td>0.04</td>
</tr>
<tr>
<td>Concerns</td>
<td>−1.268</td>
<td>0.205</td>
<td>0.25</td>
</tr>
<tr>
<td>Attitudes</td>
<td>−0.759</td>
<td>0.442</td>
<td>0.15</td>
</tr>
<tr>
<td>All sectors Total</td>
<td>−3.945</td>
<td>0.000*</td>
<td>0.47</td>
</tr>
<tr>
<td>Sentiments</td>
<td>−2.763</td>
<td>0.006*</td>
<td>0.33</td>
</tr>
<tr>
<td>Concerns</td>
<td>−3.685</td>
<td>0.000*</td>
<td>0.44</td>
</tr>
<tr>
<td>Attitudes</td>
<td>−1.106</td>
<td>2.69</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Note: *Significant at 0.05

### Table III

TEIP

<table>
<thead>
<tr>
<th>Sector</th>
<th>z-score</th>
<th>p-values</th>
<th>Effect size r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery</td>
<td>−2.772</td>
<td>0.006*</td>
<td>0.48</td>
</tr>
<tr>
<td>Primary</td>
<td>−2.023</td>
<td>0.043*</td>
<td>0.64</td>
</tr>
<tr>
<td>Secondary</td>
<td>−0.630</td>
<td>0.529</td>
<td>0.48</td>
</tr>
<tr>
<td>Total sample</td>
<td>3.406</td>
<td>0.001*</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Note: *Significant at 0.05
Several authors have linked teachers’ sentiments and concerns to teachers’ attitudes towards the inclusion of pupils with ASN (Forlin et al., 2011; Sharma et al., 2008; Sharma et al., 2006). This study found significant differences in the concerns subscale scores post-training. This is in line with Forlin, Loreman and Sharma (2014), who report fewer concerns about inclusive education. In terms of differences between sectors, nursery and primary participants had significantly fewer concerns post-training, whereas there was no significant difference in the secondary sector. Post-training, there was a significant difference on the sentiments subscale overall. In terms of the differences between sectors, there was a significant difference in sentiments in the early years but not in the primary or secondary sectors. The areas of sentiments and concerns are worthy of future research, particularly in relation to differences between sectors.

Looking at the second area of enquiry, across the overall sample there was a significant improvement in participants’ efficacy, as measured by TEIP, in supporting pupils with Autism post-training. This concurs with previous studies in Hong Kong which found that teacher efficacy can be improved by training (Forlin, Loreman and Sharma, 2014; Forlin, Sharma and Loreman, 2014). However, comparing the three sectors, the change in the secondary participants was not significant. There does not appear to be previous research focussing on this area. This indicates another area for future research.

Focussing on the third area of enquiry, in the post-questionnaire, confidence levels in supporting a pupil Autism in the mainstream class/school in the nursery, primary and secondary sectors achieved median scores of 9, 8 and 8, respectively. This is an important finding as previous studies have found a positive relationship between confidence and teacher efficacy in teaching pupils with Autism (e.g. Lo et al., 2014). In all sectors, participants advocated the use of strategies that are recommended by National Autistic Society (2014). It can be concluded from this that

### Table IV Post training questionnaire

<table>
<thead>
<tr>
<th>Sector</th>
<th>Strategies</th>
<th>Effectiveness of strategies&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Useful aspects of training</th>
<th>Confidence in support pupils with ASD&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery</td>
<td>Use of visual aids</td>
<td>Range – 5 to 10</td>
<td>Learning about needs and how to meet them</td>
<td>Range – 8 to 10</td>
</tr>
<tr>
<td></td>
<td>Careful use of language</td>
<td>Median – 8</td>
<td>Listening to young people with ASD speak about their experiences</td>
<td>Median – 9</td>
</tr>
<tr>
<td></td>
<td>Allowing children time to process instructions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Having a good speech model in place</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preparing children in advance for change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consistency of approach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sharing good practice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>Use of visual aids</td>
<td>Ranged – 6 to 9</td>
<td>Gaining an understanding of ASD and associated needs</td>
<td>Range – 6 to 9</td>
</tr>
<tr>
<td></td>
<td>Extra support from peers or professionals</td>
<td>Median – 8</td>
<td>Hearing about how having a communication disorder affects individuals from their own perspective</td>
<td>Median – 8</td>
</tr>
<tr>
<td></td>
<td>More understanding of ASD and associated needs</td>
<td></td>
<td>Learning about strategies that can be used to support individuals with language and communication difficulties</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appropriate target setting</td>
<td></td>
<td>Learning about how the environment can impact the child</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Extra support from the teacher or pupil support assistant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peer support from ‘reading buddies’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Using clear communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Allowing children extra time to process instructions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preparing children in advance for change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>Careful use of language</td>
<td>Range – 6 to 9</td>
<td>Learning about ASD</td>
<td>Range – 5 to 10</td>
</tr>
<tr>
<td></td>
<td>Building a relationship with the pupil in order to know them well</td>
<td>Median – 7</td>
<td>Learning about strategies that can be used to support children with communication and language difficulties</td>
<td>Median – 8</td>
</tr>
<tr>
<td></td>
<td>Informing pupils of changes in advance</td>
<td></td>
<td>Learning about the experiences of young people with ASD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provision of support from the teacher</td>
<td></td>
<td>Time for professional dialogue with colleagues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pupil support assistant, outreach team</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peer support from “senior guiders”</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Notes: |<sup>a</sup> Scale of 1–10, with 1 being not effective and 10 being very effective;  <sup>b</sup> Scale of 1 to 10, with 1 being not at all confident and 10 being very confident
training has had a positive impact on participants’ espoused practice, although it is acknowledged that participants practice was not observed by the researchers.

The present study has a number of limitations. As there was slightly different training in the sectors to accommodate the different contexts, it could be argued that it was not appropriate to combine the findings from the sectors or to conduct comparative analyses. However, as the majority of previous research has not investigated sector differences, the present study’s initial findings are worthy of further investigation. Participants and establishments were purposively selected based on the establishments’ needs. A random sampling method might have increased the internal and external validity of the research. Reliance on the Head Teacher to select participants may have had an impact on results depending on participants motivation. The Questionnaire on Knowledge of Strategies/Understanding of Needs was only used post-intervention so there is no pre-intervention comparison. Post-intervention measures (SACIE-R and TEIP) were employed at different times, which would have impacted on the comparability of the findings. The small sample size would have impacted on the power of statistical analysis and limited the range of views.

A number of areas merit future research as follows:

- Participants had previous experience of working with children with Autism. It would be interesting to include participants without previous experience of working with children with Autism and compare and contrast the impact of training.
- More research is needed investigating difference between different sectors, particularly in relation to inclusive practice in the secondary sector.
- Further research is required focussing on sentiments and concerns about inclusive practice.
- Future research could incorporate follow up measures.

Based on participants’ feedback on the perceived value of the training, there are a number of areas that should be incorporated into future training on Autism for school staff. These would enhance staff self-efficacy and create a more inclusive educational experience:

- Understanding the needs of children with autism through an appreciation of the different ways in which they experience the world: this should include theoretical perspectives.
- Learning a range of pedagogical strategies to support children with Autism: this could include, but limited to, cultivating a positive classroom ethos, understanding the child’s behaviour before intervening, and methods of enhancing predictability such as visual supports.
- Understanding the impact of sensory issues and how to adapt the class and school environments to make them more inclusive: this relates to the concept of universal design negating the need for specialized adaptations.
- Experiential learning through hearing the personal experiences of individuals with Autism through literature, videos and direct personal accounts.
- Opportunities for professional dialogue with colleagues: this could be with colleagues in the same school, networking with staff in other establishments and support from specialist staff.

Future training may wish to place greater emphasis on practical elements such as mastery components (coaching in context) and vicarious experience (observation of practice).

References


(The Appendix follows overleaf.)
Appendix. Questionnaire on usefulness of training, application of knowledge, effectiveness of strategies

1. What strategies are you using within the learning environment to support children with communication and language difficulties (including Autism Spectrum Disorder ASD)?

2. What strategies are you using on an individual basis to support a child in your class/establishment who has communication and language difficulties?

3. How effective do you think these strategies are?

Please circle

Not Effective
Very Effective

1 2 3 4 5 6 7 8 9 10

4. What did you find most useful about this training?

5. How do you propose to take forward what you have learned on this training?

6. How will you and others know that this training has been effective? (For example, how will your practice be different, what changes will be noticed within the different learning environments?)

7. Have you received any feedback from children, parents or carers about changes that they have noticed since you attended this training?

8. How confident do you feel now in supporting a child with communication and language difficulties in your class/education establishment?

Please circle

Not at all Confident
Very Confident

1 2 3 4 5 6 7 8 9 10

Corresponding author

Elizabeth Fraser Selkirk Hannah can be contacted at: e.hannah@dundee.ac.uk

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: permissions@emeraldinsight.com
Self-advocacy and self-determination of autistic students: a review of the literature

William James Zuber and Colin Webber

Abstract

Purpose – The purpose of this paper is to examine current research on self-advocacy and self-determination of autistic students in order to provide an overview of the research and to critically evaluate researcher’s methods of inclusivity of autistic people. Additionally, this paper will critically analyse the discourse of the current research to assess the extent of deficit, stigma and pathology discourse.

Design/methodology/approach – Research will be selected from a list of criteria which is to seek research that is inclusive of autistic people. The research will be analysed using elements of critical discourse analysis, critical disability studies and critical autism studies. The critical autism studies approach used in this paper is emancipatory to promote autistic scholarship, autistic inclusivity and autistic led research methods.

Findings – The result of this paper is that by prioritising, and including autistic individuals in the studies about them provides valuable educational insights and often challenges assumptions, stigmas and stereotypes of autistic individuals.

Research limitations/implications – The findings of the paper may be limited by the selection of literature reviewed and generalisability, therefore, researchers are encouraged to explore further.

Practical implications – This paper holds potential implications that question the consistency of current discourse and research into self-advocacy for autistic individuals in addition to providing effective research, teaching and support strategies based on insight. This paper also highlights some research that challenges assumptions of autistic individuals.

Social implications – This paper challenges assumptions and stigmas associated with autistic individuals and demonstrates the importance of self-advocacy and self-determination. This research transforms the paradigm of autism and education practice that has the potential to improve autistic individuals’ education and ultimately, improve their lives.

Originality/value – This research is important and valuable as there is limited research in this area. The potential of this research is that it can shift the broad perceptions of autism and make improvements in education and autistic individuals lives.

Keywords Autism, Self-determination, Pedagogy, Self-advocacy

Paper type Literature review

Introduction

The influence of the social justice movement has brought the shift to inclusive education which places new demands on educators (Soto-Chodiman et al., 2012, p. 97). Additionally, the Autistic Self Advocacy Network (ASAN) promotes and supports self-advocacy of autistic individuals (Autistic Self Advocacy Network, n.d.), which forms an essential component of democratic rights for equal access to education. The expectation to deliver effective and meaningful education for students with diverse learning needs puts pressure on educators who are potentially not trained to meet the challenge (Soto-Chodiman et al., 2012). Through self-advocacy, however, it is possible for the educator to develop better teaching and learning strategies when the student is able to articulate themselves by describing their challenges, wants and needs. By adopting inclusive research and practices, education professionals can shift from deficit, stigma and pathologizing discourse to approaches that...
emancipate autistic people through inclusivity and autistic scholarship (Gillespie-Lynch et al., 2017, p. 1; Woods et al., 2018, p. 1).

Student learning needs can be diverse in classroom settings, and in order to cater to students with unique learning requirements, the self-advocacy abilities of the student play an essential role in enabling educators and support staff to develop pedagogical insights from autistic individuals (Walters, 2015). The benefit for educators is that they can achieve meaningful and effective educational opportunities and pedagogy strategies for their students (Chou et al., 2016, p. 130) (Carter et al., 2013, p. 135). Self-advocacy and self-determination of individuals with disabilities is linked with improved education and positive life outcomes (independent living and employment outcomes), which demonstrates the importance of this research and associated educational practice (Barnard-Brak and Fearon, 2012, p. 40; Carter et al., 2013, p. 129; Chou et al., 2016, p. 124).

Self-advocacy for autistic students does lead to questions of equivalent educational practices for non-autistic students and there is an argument that if self-advocacy and self-determination have such positive outcomes for students with disabilities, then why are the same practices not applied to all students? This is discussed in some of the research reviewed; however, it requires further research which is beyond the scope of this paper.

Research methods

Research methods used in this integrative literature review (Cohen et al., 2007, p. 292; Cook, 1994; Jackson, 1980) involve selecting literature that meets certain criteria, then the literature is analysed with a view to infer generalisations about substantive issues and provide areas for possible future research (Jackson, 1980). Elements of critical discourse and semiotic analysis will also be integrated which is a compatible method with “social cultural perspectives in educational research” (Rogers, 2011, p. 30).

Online database searches were conducted of peer reviewed research articles using the following search words: self-advocacy, self-determination, pedagogy, education, autism and neurodiversity.

A total of 26 articles were selected and were scanned to determine if they met the selection criteria. The selected articles were then processed using a simple coding system of numerical values – 1, 2 or 3. The PDF files of the articles were stored and files were renamed with the numerical values. Articles with a 3 were immediately rejected and considered irrelevant due to being poorly written and/or not meeting the criteria. Articles labelled 2 were relevant but did not meet the criteria. Articles labelled 1 met at least some of the criteria and were worthy of closer inspection in terms of overall quality.

A total of 21 shortlisted articles were assigned value of 1 and were then closely inspected in order to determine if they met the criteria in full. These articles were then categorised into a system of yes, no and maybe. This process involved comparing and contrasting the articles as they often covered broader areas such as intellectual disabilities (ID), learning disabilities and parent perspectives. The reasons for rejecting the shortlisted articles were primarily due to the fact that they did not specifically address autism or Asperger’s Syndrome (AS) or were not specifically addressing self-advocacy or self-determination.

Another reason for rejecting articles was that many articles were not inclusive of autistic or Aspergers individuals. Finding articles that met these criteria were challenging and only one article used statements of autistic individuals (Walters, 2015).

Literature selection criteria

1. The literature discusses autism and self-advocacy/self-determination in educational contexts.
2. The literature is scholarly and peer reviewed.
3. The literature is published in the years between 2000 and 2017.
4. The literature discusses or includes opinions and statements from autistic people.
Selected literature

1. Towards a critical ASD pedagogy of insight: teaching, researching and valuing the social literacies of neurodiverse students (Walters, 2015).

Analysis

Database searches of autistic, pedagogy and self-advocacy/self-determination revealed that there are limited studies available, they tend to focus on “higher-functioning” autism or Aspergers Syndrome, they are predominantly based in North America (USA), they include discussion around individual education programs and often focus on the transition from school to adulthood. The dialogue in the literature reviewed is dominated by a pathological paradigm that focuses on diagnosis, intervention, treatment and behaviour management almost exclusively conducted by neurotypical individuals that often formulate theories about autistic people without talking with them (Walters, 2015, p. 341). An example is where proposed intervention strategies omit the autistic individual from planning their education in an article titled “Implementation of children’s rights: what is in “the best interests of the child” in relation to the individual education plan (IEP) process for pupils with autistic spectrum disorders (autistic)” (Prunty, 2011). The article outlines a team of specialists (Prunty, 2011, p. 33) but does not include or involve the child in question. This contradicts other research that indicates positive outcomes of student participation and leadership in individual education programs (Barnard-Brak and Fearon, 2012; Carter et al., 2013; Chou et al., 2016; Test et al., 2005).

Although 26 articles were shortlisted and four selected, the rejected articles were closely reviewed and provide broader insights into disability studies in education. All articles shortlisted and rejected were varied in terms of theoretical frameworks and research methods with some articles perpetuating negative autistic stereotypes and discuss autistic “cures” and ways to make autistic individuals “fit in” (Adreon and Durocher, 2007, p. 273). Imagery in one article appears to have been selected in order to represent autism in a negative way where images of young individuals appear to be sad and troubled, yet the article contains a quote from a student “College was an exciting time. I could be myself” which is in stark contrast to the images of seemingly troubled young autistic individuals (Adreon and Durocher, 2007, pp. 271-9).

There does however appear to be a shift in views of autism as demonstrated by the neurotypical movement (Robison, 2013; Walters, 2015) and in some cases individuals such as Tony Attwood congratulate his patients when they are diagnosed with AS as outlined in a quote from his book “I usually say to the child ‘Congratulations, you have AS’ and explain that this means he or she is not mad, bad or defective, but has a different way of thinking” (Attwood, 2015, 2017). The contradictions in research articles and professionals demonstrate that although there is a consensus that research and professionals have good intentions, there are inconsistencies in the perception and portrayal of autistic individuals. Additionally, a strong theme discussed in the shortlisted articles in this research is that more research is needed in the area of self-advocacy for autistic individuals in education. Each of the selected articles will now be analysed in more detail.

Table I provides a brief summary of the selected articles followed by an analysis of each article.

Articles for Table I:

1. Towards a Critical ASD pedagogy of insight: teaching, researching, and valuing the social literacies of neurodiverse students (Walters, 2015).
Table I: Summary of selected articles

<table>
<thead>
<tr>
<th>Article Type</th>
<th>Description</th>
<th>Methods</th>
<th>Location</th>
<th>Date</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Case study</td>
<td>Critical pedagogy, critical disabilities, pedagogy of insight, critical discourse analysis</td>
<td>USA</td>
<td>2015</td>
<td>Views and statements of autistic individual’s insights resist stereotypes. Observations of autistic student’s extracurricular activities linked to pedagogy deficiency. Direct inclusion of views, opinions and statements of autistic individuals. This area is under researched.</td>
</tr>
<tr>
<td>2</td>
<td>Randomised trial</td>
<td>Multivariate analysis</td>
<td>USA</td>
<td>2016</td>
<td>Indirect inclusion of views, opinions and statements of autistic individuals. Self-advocacy linked to positive outcomes. There is no “one size fits all” pedagogy. This area is under researched.</td>
</tr>
<tr>
<td>3</td>
<td>National data analysis</td>
<td>Logistic regression analysis</td>
<td>USA</td>
<td>2012</td>
<td>Indirect inclusion of views, opinions and statements of autistic individuals. Self-advocacy is a key to self-determination. Self-advocacy important for designing instruction and IEP participation. Students are unaware of self-advocacy. This area is under researched.</td>
</tr>
<tr>
<td>4</td>
<td>Ethnographic study</td>
<td>Regression analysis</td>
<td>USA</td>
<td>2013</td>
<td>Indirect inclusion of views, opinions and statements of autistic individuals. Self-determination key to achieving life and education goals. Parents place high value of self-determination for their autistic children but rate their children’s abilities low. Waiting until post high school is too late. This area is under researched.</td>
</tr>
</tbody>
</table>


Towards a Critical ASD pedagogy of insight: teaching, researching, and valuing the social literacies of neurodiverse students (Walters, 2015)

Walters’ article uses critical disabilities and critical pedagogy methods for a case study of two Aspergers university students in writing classes who volunteered to participate in the study. Five, semi-structured individual interviews that spread over a semester were conducted. “After exploring existing conversations that tend to ignore the voices of students with autism, I propose a methodology based on the concept of autistic as insight, rooted in critical disabilities, in which the perspectives of neurodiverse students are prioritised” (Walters, 2015, p. 340). The study outlines that more attention and research should be on university programs for autistic individuals. There is a very little research about autistic students studying at university and even less that include the voices of the students with autism (Walters, 2015).

Universities face challenges and demands to provide effective education for autistic students. Pedagogy practices should be based on the students “Yet the perspectives of autistic students are often missing from pedagogical discussions about them” (Walters, 2015, p. 341). Pedagogical literature often describes the teacher’s journey of how they learn about autism which often involve troubling practices where they tend “to speak about ASD students, often without their knowledge, rather than with them” (Walters, 2015, p. 341). The risk of ignoring the voices of autistic individuals in research is that it reinforces dominant views of autism based on stereotypes. The dominant views of autism are that it is “a problem to be fixed or managed” which implies “control and containment” (Walters, 2015, pp. 341-2). The article then suggests a framework based on disability studies which “values the possibilities of disability” and disabilities as insight can be transformative for pedagogy theory and practice (Walters, 2015, p. 342). This theoretical framework indicates that using insight can in fact broaden pedagogy approaches that embrace inclusion, diversity and sits within the framework of democracy where the perspectives, needs and desires of individuals in educational settings are prioritised. If broader pedagogy theory and
practices incorporate this framework then there is the possibility of transforming education. Walters then “urges teachers and researchers to question neurotypical assumptions undergirding literacy theory and practice” (Walters, 2015, p. 342). Walters described the research perspective after reflecting on their neurotypical assumptions and resisted trying to identify causes as “simplistic assumptions and casual connections”. This approach enabled Walters to position themselves as a neutral researcher in addition to encouraging the subjects of the study to “set the terms of our interaction and communication”. This approach led Walters to become “more self-reflexive regarding my own positionally and neurotypical standpoint” and as a result was able to gain broader perspectives on the subjects of the study. Using the framework of critical disability studies and through “prioritising the experiences and testimony” of the students in the study, the researcher also aligned with the aims of the Autism Self Advocacy Network which “emphasises the voices and expressions of autistic people in conversation about them”. This research method embodies disability studies and the democratic rights of people with disabilities which is summarised in the mantra “nothing about us without us” (Charlton, 2000). This is demonstrated when the two students of Walter’s study were asked to define their diagnosed condition of AS. Both demonstrated critical literacy abilities and resisted stereotypes, such as autistic people are “unemotional and lacking empathy”. The students contradict this standpoint with their statement “They [AS] also have a hard time describing their feelings, but they do feel—it’s just hard for them to express it correctly. It also involves being unable to discern the emotions of others easily” (Walters, 2015, p. 346).

When analysing the findings of the case study, Walters discussed the challenges faced by the AS students with their writing were predominantly due to “neurotypical approaches to writing” and that they “more often experience difficulty because their courses do not support their neurodiverse approaches to writing” (Walters, 2015, p. 349). The challenges the AS students faced in their classes were then contrasted with their “out-of-school” activities where “their struggles with the writing process diminished” (Walters, 2015, p. 349). This finding suggests that pedagogy theory and practice is dominated by neurotypical frameworks and Walters “invites writing teachers to adjust their pedagogy accordingly” (Walters, 2015, p. 349). Additionally, Walters indicates the AS students also resist anti-social and self-awareness stereotypes as they demonstrated themselves to be social learners in addition to demonstrating critical literacies (Walters, 2015, pp. 347-9). In discussions of writing pedagogy, Walters describes a theoretical framework in response to the findings: “A complex pedagogical response mean not only making structural adjustments, but also listening to students to find ways of honoring the variety of neurodiverse social literacies and creative approaches that ASD students bring to the classroom” (Walters, 2015, p. 356).

The methods and frameworks discussed in Walters’ research highlights autistic individuals self-advocacy skills are fundamental to their learning, education and life. The two AS students in the case study volunteered to participate and “were eager to collaborate” (Walters, 2015, p. 357), which indicates the two students had well developed self-advocacy and self-determination abilities. The autistic student’s self-advocacy abilities were met with a person (Walters), that values and prioritises pedagogical insights of autistic students. Walters’ case study demonstrates a pedagogical framework for autistic students self-advocacy which is summarised in a final statement “The ethical pedagogical response is to listen to students and value their insights, a response that works in direct resistance to the deficit-based assumptions and stereotypes that persist about the abilities of ASD writers” (Walters, 2015, p. 357).

Comparisons of self-determination among students with learning disabilities and without learning disabilities: a multivariate analysis (Chou et al., 2016)

This study examined and compared the self-determination skills of students with autism, learning disability (LD) and ID on four variables. The variables were autonomy, self-regulation, psychological empowerment and self-realisation. The study highlights the positive outcomes of higher levels of self-determination that include positive school and adult outcomes in academic achievement, general quality of life and lifestyle satisfaction (Chou et al., 2016). A theme noted in this paper (and many others) indicate that there are limited studies conducted on measuring autistic students self-determination abilities in addition to autistic students being less likely to
receive services in general education settings (Chou et al., 2016). The number of autistic students in the study was 94 and the need for future research with larger sample sizes was highlighted.

The implications for educators are that it is “important for teachers to create meaningful educational opportunities to foster students’ self-determination, especially opportunities for students with autism to learn and participate in inclusive settings” (Chou et al., 2016, p. 130). The article argues that students with disabilities have distinct learning profiles and educators can determine their specific instructional needs and support. The article also identifies that autistic students may have less opportunity to learn in general education settings. Providing autistic students with regular opportunities to make choices about their education and learning is a strategy suggested in this paper which may be included in further research in addition to further research in general for self-determination of autistic students.

**Self-advocacy skills as a predictor of student IEP participation among adolescents with Autism (Barnard-Brak and Fearon, 2012)**

Improved student participation and engagement in individualised education programs (IEP) has been linked to self-advocacy abilities of students with autism in Barnard-Brak and Fearon’s research article. Although secondary student participation in their IEP meetings is mandated in the USA, it should be noted that students at any age are able to participate. This paper indicates the importance of self-advocacy of autistic students and their involvement and leadership in developing their IEP is considered essential (Barnard-Brak and Fearon, 2012, p. 39). A key component for students to achieve self-determination is establishing self-advocacy, and both attributes are strongly linked to a range of positive outcomes such as achieving academic goals, enhanced confidence, independent living and employment outcomes (Barnard-Brak and Fearon, 2012; Carter et al., 2013; Chou et al., 2016; Test et al., 2005). The planning and development of curriculum and instructional strategies can also benefit from the self-advocacy and self-determination abilities of students with disabilities. The diverse nature of disabilities, particularly autism can be challenging for educators but gaining insights from the student can provide meaningful and effective measures for educators (Chou et al., 2016; Walters, 2015).

Despite the positive outcomes in developing self-advocacy and self-determination in students with autism, studies show that there is a lack of awareness and lack of access to self-advocacy and self-determination services and support. Studies also indicate a strong interest in developing advocacy exists amongst autistic students in addition to advocacy being perceived as valuable by autistic students and their parents (Barnard-Brak and Fearon, 2012; Carter et al., 2013).

Among Barnard-Brak and Fearon’s (2012) findings were that “self-advocacy skills have more of an influence on IEP participation among adolescents with autism spectrum disorders as compared to adolescents with disabilities other autism spectrum disorders” (p. 45).

Another area discussed is the need for individualised education programs for autistic individuals as there is a close link to identity construction for individuals with autistic which is viewed as highly social and an ongoing process (Bagatell, 2007, p. 413). Studies into identity construction of autistic individuals are often overlooked given the assumption that autistic individuals are not interested in the social world and Barnard-Brak and Fearon (2012) indicate this as an area suitable for further research (p. 45). This area of research also correlates with Walters’s (2015) critical research paper in which autistic students clearly articulate a description of autism in their own words which resists such assumptions (p. 346).

**Self-determination among transition-age youth with Autism or Intellectual disability: parent perspectives (Carter et al., 2013, pp. 129-38)**

The research article written by Carter et al.’s (2013) examines the parents views on the self-determination abilities of their young adult children with autism. The results indicate that parent’s place a high value on their children’s self-determination abilities but indicate their autistic children did not perform these skills well (p. 129).
The article begins by using a statement from the USA’s Individuals With Disabilities Education Improvement Act of 2004: “all children with disabilities have available to them a free and appropriate public education that emphasizes special education and related services designed to meet their unique needs and prepare them for further education, employment, and independent living” (Carter et al., 2013, p. 129). This statement is then linked to the research into self-determination of autistic individuals and is highlighted as an essential focus to support and provide services for autistic individuals. This emphasis is supported by “mounting empirical evidence evidence suggesting self-determination may also contribute directly to those valued post-school outcomes in the Individuals With Disabilities Education Improvement Act” (Carter et al., 2013, p. 129). The support services and education in self-determination for autistic individuals is often described as unique, which is clearly an established framework in the form of IEPs.

Providing meaningful opportunities is another component that is combined with IEP’s and this can be supported by families, schools and communities playing an active role in providing self-determination opportunities for autistic individuals (Carter et al., 2013, p. 135). Family involvement is associated with improved self-advocacy of autistic individuals and parent’s engaging in self-advocacy and self-determination for their children can offer a consistent influence (Carter et al., 2013, p. 135). This suggests that although self-advocacy and self-determination becomes the focus in the years of transitioning into adulthood, the education and support can begin at anytime in the individual’s life. Early implementation of self-advocacy and self-determination support and education is also highlighted as important as waiting until post-school to begin is likely to be too late (Carter et al., 2013, pp. 130, 135).

Carter et al. (2013) found that parents value and prioritise self-determination skills highly and that they play an important role in supporting their children in addition to offering valuable insights for researchers. The emphasis, however, is to equip autistic students with the skills, attitudes and opportunities in order for them to play an active role in directing their own lives (p. 135). Parents of autistic individuals also tended to give higher performance ratings of their children’s self-determination abilities when they described the autistic diagnosis of their as “mild/moderate disabilities”. However, it is also suggested that the environment and context plays a role in developing an individual’s self-determination (Carter et al., 2013, p. 135).

A range of further research is outlined and the general themes are more studies with larger samples are needed in order to develop self-advocacy and self-determination education and support for autistic individuals (Carter et al., 2013).

Limitations and future research

Although many articles were screened for this literature review, the search was not exhaustive and relied on the search results of peer reviewed articles in online databases. Additionally, only four articles were selected that met the criteria and many were rejected due to not meeting the criteria in this review.

Most of the literature screened and all of four selected articles originated from the USA. Although the USA conducts a great deal of research, it does not include global contexts or perspectives of countries outside of the USA. Therefore, the context of the reviewed articles should be considered for its application to specific contexts and settings globally. This does not suggest research from the USA should not be considered however.

The majority of the future research highlighted in the reviewed literature suggests that this is an area that is generally under-research. Future research should include larger sample sizes, global perspectives and a shift to address the limitation of conducting research, formulating theories and practicing education without including or involving the individuals in question, particularly individuals with disabilities.

Conclusion

As highlighted in the articles reviewed in this paper, there is mounting evidence that self-advocacy, self-determination and including autistic individuals in the educational discussions
and research about them leads to positive outcomes that include achieving academic goals, independent living, improved confidence and employment outcomes. The outcomes of self-advocacy and self-determination skills of autistic individuals benefit the individual and can further develop pedagogy practice in education. Walters’ study highlights autism as an insight for pedagogy as an approach worthy of further research in addition to challenging many preconceptions regarding autistic individuals. Prioritising the insights of autistic individuals also raises a broader topic of pedagogy of insight, which is an area that could be explored further as an approach to develop metacognitive and critical literacies in all students.

Critical discourse analysis of the reviewed literature also reveals the language, definitions and terms used are inconsistent. Additionally, the opinions, views and statements of autistic individuals are not consistently used in research. The result of this paper is that by prioritising and including autistic individuals in the studies about them provides valuable educational insights and often challenges assumptions, stigmas and stereotypes of autistic individuals.

References


Further reading


About the authors

William James Zuber has worked as a Leader and Educator in visual design and multimedia for both private and government organisations and worked as an Instructional Design Leader, Graphic Designer and Multimedia Designer for over 18 years. Bill delivered a research paper at the Education for Democracy Summit held by USQ (University of Southern Queensland) titled "Autism, pedagogy, and self-advocacy: a review of the literature" in 2017. Prior to this, Bill has published an article in a peer-reviewed journal titled "The flipped classroom: a review of the literature" in 2016. To further his academic career, Bill is working towards the PhD Degree in Education with a focus on students with learning disabilities. William James Zuber is the corresponding author and can be contacted at: billzuber@gmail.com

Dr Colin Webber has held the role of National Manager Academic Services at SAE Institute Australia since 2015 having joined SAE in 2013 as Academic Coordinator on the Brisbane campus. Prior to SAE, he has worked in university and private education environments as a teacher and academic leader. His background in composition, music and audio production, especially in highly collaborative environments such as theatre and dance has been highly influential in his interests and methods of education. Colin holds a research in Masters of Music (composition) investigating collaborative environments and a Doctor of Musical Arts investigating the relationships between autistic traits and creative processes. In 2017 Colin was awarded Senior Fellow of the Higher Education Academy.

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com
Barriers and enablers of inclusion for young autistic learners: lessons from the Polish experiences of teachers and related professionals

Marion Hersh and Sharon Elley

Abstract
Purpose – The purpose of this paper is to present new empirical data on the experiences of 120 teachers and professionals working with autistic children and young people across different settings in Poland where autism research on inclusive education is scarce. It explores the relationship of inclusive education to the social and neurodiversity models of disability. It makes evidence-based recommendations for good practice and modelling and evaluating future education and inclusion practices.

Design/methodology/approach – It uses a survey approach involving a combination of qualitative and quantitative data collection and embeds practical findings in theory, including the relationship of inclusive education to the social and neurodiversity models of disability.

Findings – The findings include the barriers teachers and related professionals experience in facilitating inclusive teaching and learning and how the following would be useful to autistic students: opportunities to exercise responsibilities and take leadership roles; social as well as educational inclusion; provision of a safe environment; regular funded autism training in work time; and appropriate use of additional classroom teachers.

Research limitations/implications – A survey-based approach has limitations.

Practical implications – Opportunities to exercise responsibilities and take leadership roles; social as well as educational inclusion; provision of a safe environment; regular funded autism training in work time; and appropriate use of additional classroom teachers.

Social implications – This study can be useful in the development of social skills and communication, social and educational inclusion.

Originality/value – Polish teachers’ attitudes, experiences and support needs, including some previously overlooked issues, are related to the broader international context beyond Poland. Analysis of the findings is used to derive evidence-based recommendations for good practice and modelling, and evaluating future education and inclusion practices.

Keywords Autism, Inclusion, Learning, Teaching, Teachers, Professionals, Poland, International

1. Introduction: the study context
Worldwide, research suggests that 0.62 per cent of people are autistic with slight variations across countries, e.g., 1.47 per cent of US children, 1.1 per cent of UK children and 0.34 per cent of Polish children formally diagnosed, with further tens of millions including families (in)directly influenced (Piskorz-Orgorek et al., 2015; Wee, 2017). Despite 20 years of progress, there are still many unresolved educational issues, including a lack of good programmes, qualified staff and integrated or inclusive teaching provision. Recently, educational inclusion has succeeded integration in Europe and elsewhere. However, inclusive practice remains difficult (e.g. Emam and Farrell, 2009). Facilitating inclusive educational practices which meet the individual needs of autistic children and the relationship between inclusive educational practices, learning and teachers experiences remain under-researched in the Polish context.

Marion Hersh is based at the College of Science and Engineering, University of Glasgow, Glasgow, UK.
Sharon Elley is based at the Department of Sociology and Social Policy, University of Leeds, Leeds, UK.

Received 4 June 2018
Revised 9 August 2018
17 January 2019
Accepted 17 January 2019

The authors would like to thank all the teachers, therapists and other educational professionals who completed questionnaires, as well as everyone who helped the authors distribute them. Particular thanks are due to Hanna Pasterny for her assistance in both improving the language of the questionnaire and distributing it. The authors would also like to thank the anonymous reviewers for their helpful comments and suggestions.
Autism spectrum “disorders” (ASD) are defined by the medical model as a set of complex neurological developmental conditions (ICD-10), leading to intellectual and behavioural challenges throughout life. According to the social model of disability (Barnes, 1994) and the compatible neurodiversity model (Davidson and Orsini, 2013), people on the autistic spectrum experience social, attitudinal and infrastructural barriers and frequently social exclusion (e.g. Humphrey and Lewis, 2008). This is often compounded by non-autistic people’s lack of understanding and acceptance of “autistic” differences in thinking, moving, interacting and sensory and cognitive processing and deficit-based “labelling” and terminology. The term autistic people will be used subsequently for everyone on the autistic spectrum including those with Asperger’s syndrome, as the term commonly preferred by many autistic people. However, the closest equivalent translation will be used in the empirical data from Poland.

Following adoption of the UN Convention on the Rights of People with Disabilities (2006) Poland has attempted to move from a medical-social model of disability to a social model (Barnes, 1994). However, this has had mixed success in raising the quality of education provision and there are still barriers to inclusive education. This research project chose to study approaches to the inclusion of autistic students through the Polish experience for several reasons. Inclusive education is central to the “Education For All” (EFA) and European Union agenda for change. There is value and a need to move outside English speaking countries and fill the gap in research on Eastern Europe. Most autistic and other disabled students (76 per cent) are still in “special” (segregated) education in Poland (Hersh et al., 2014) but there are promising indications of some movement towards inclusion.

Concepts of inclusion are generally less well known in Poland than the UK and integration often dominates educational thinking (Starczewska et al., 2012). Compulsory education in Poland starts in preschool aged 5 and at the time of the study was followed by primary school (6/7–13), lower secondary (13–16) and upper secondary (16–19) or vocational school (15–18). Education reforms in 2017 extended primary school to age 15 and removed lower secondary. In the UK, greater progress means “[…] pupils with special educational needs should wherever possible receive their education in a mainstream school” (DfEE, 1997, p. 2). Inclusion, but not integration, requires restructuring all mainstream schools across the curriculum so every child, disabled or not, fully participates in schooling, learning and communities. Avramidis and Norwich (2002, p. 192) suggest “[…] inclusion therefore becomes part of a broad human rights agenda that argues that all forms of segregation are morally wrong” and Bulawa-Halasz (2015) claims “it is not the child, but the system which needs to change”. Indeed, Article 70 of the Constitution of the Republic of Poland 1997 states that “Everyone shall have the right to education. […] Public authorities shall ensure universal and equal access to education for citizens”. Yet, research in this area often fails to give a nuanced picture of the experiences of autistic pupils and relevant professionals, with most research instead focussing on other groups of disabled pupils in Poland.

There is increasing recognition of the benefits of inclusive education to both (non-) disabled and autistic students (Martin and Milton, 2017) worldwide but no clear definition of its meaning, process or best practice. In Poland, the Polish European Agency for Special Needs and Inclusive Education (2017) provides guidance on best practice which aims to: raise learner achievements by recognising and building on their talents, skills and meeting their individual learning needs and interests; provide personalised approaches that engage all learners and support their active learning participation; ensure all stakeholders value diversity and contribute individually and collectively to widening educational access; enable stakeholders to develop inclusive attitudes and beliefs, knowledge, understanding, skills and behaviours and learning engagement at both individual and organisational levels; and work towards continuous improvement through capacity building and collectively shared goals. Our research project is informed by this “vision” of inclusive education and the limited literature and research findings on inclusive education for autistic students.

General disability research suggests slow progress with disabled students sometimes isolated or otherwise disadvantaged in mainstream classrooms or segregated schooling. The Polish European Agency for Special Needs and Inclusive Education (n.d.) also claims that students with “special educational needs” are often, for example, discouraged from attending mainstream schools; special schools increasingly mainly attract pupils with multiple impairments; and anxiety
about change makes special school teachers resistant to integration/inclusion. Some parents may try to “normalise” their disabled child via mainstream school attendance, often in schools unable to meet complex individual needs. There is frequently insufficient recognition of the need for measures to ensure social, as well as educational inclusion. This can be particularly important and difficult for autistic students and, consequently, there is a need to develop well-resourced mainstream education for all children. Grounded in empirical data and the social model of disability, our research offers new insight into the Polish education context and professionals’ lived experiences of working with autistic children and young people, and highlights the barriers, enablers and facilitators of educational inclusion for autistic children and their application within, and beyond, Poland.

2. Literature review

The growing use of mainstream education (e.g. Avramidis and Norwich, 2002) for autistic children makes the issues associated with effective teaching, learning and support relevant to all teachers worldwide. There is also serious concern about the future education and employment prospects of autistic people, with an estimated 12–15 per cent of higher functioning UK individuals in paid employment and only 25 per cent of young autistic adults having any education or training after school (Touhig, 2013). Research in this area is sparse, with few surveys of teachers or other education professionals, despite recognition of their crucial role in ensuring “equal opportunities for quality education” and “equity in treatment” (Donnelly and Watkins, 2011). Relatively few success factors have been identified. This section provides an overview of research on education provision and experiences in various countries with a focus on the factors that affect inclusion of autistic learners.

There are three main models for educating disabled students: “segregation” in (non) residential special schools; “integration” in mainstream schools in inclusive or special classes, but often “the onus is on the assimilating [disabled] individual […] to make changes so they can “fit in” (Frederickson and Cline, 2002, p. 65); and “inclusion” in appropriate mainstream classes in mainstream schools with appropriate support and aids and “the onus is on the school to change, adapting curricula, methods and procedures so that it becomes more responsive” (Frederickson and Cline, 2002, p. 65; Bulawa-Halasz, 2015). International research shows that “special” school teachers generally have more autism training and better support than mainstream teachers, with only a very small minority of US mainstream teachers feeling “well-prepared” to teach autistic pupils (Teffs and Whitbread, 2009). This raises issues of how this expertise can be transferred from special to inclusive education.

A Scottish study found it can take teachers up to a year to feel competent to teach an autistic child (Glashan et al., 2004). Full and half-day workshops were the most frequently used training approach in a US survey, followed by practical experience of working with autistic students and self-training (Morrier et al., 2011). However, ongoing technical assistance and access to resources to support training are recommended (Scheuermann et al., 2003). Generally, teachers in Poland experience particular difficulties in dealing with the different social and emotional understanding and communication styles of autistic and non-autistic students, motivating autistic students, tackling “challenging” behaviour (Urbanovská et al., 2014) and often lack time to meet individual students’ needs.

Interventions in the UK and USA are increasingly being tailored to individual children in line with literature showing the value of individualised goals, strategies and evaluation criteria (Hurne et al., 2012; Martin and Milton, 2017). This includes joined-up and consistent approaches across parents, teachers and therapists (Ruble and Dalymply, 2002). Individual approaches to assessment, joint work with parents (Koruleka, 2013) and individual approaches which take account of various student features have also been recommended in Poland (Gamcarz and Rybka, 2012), but it is unclear to what extent they are applied in practice. Head teachers’ social/medical model orientation and attitudes toward inclusive classrooms have been found to be the main predictor of effective teaching (Stanovich and Jordan, 1998). "Social model" teachers often teach more effectively and inclusively than "medical model" teachers (Stanovich and Jordan, 1998), indicating the importance of educating teachers about the social model of disability. Experience of teaching an autistic child
has also been shown to increase positive attitudes to integration (McGregor and Campbell, 2001; Teffs and Whitbread, 2009).

Additionally, experience of autism has been found to be crucial for supporting autistic children and their teachers, but is generally lacking (Glashan et al., 2004). However, teachers generally have positive attitudes towards autistic children, with younger and female teachers, and those who had attended multiple autism workshops having more positive attitudes (Park and Chitiyo, 2011). However, US head teachers have problematically been found to recommend lower levels of inclusion for “socially detached” autistic students and higher levels for good academic performers, with most teachers preferring the support of an additional teaching assistant (Giancreco et al., 1999).

Studies show that many assistants have little or no autism specific training and often little knowledge of the school rules (Glashan et al., 2004), although many had taken courses or researched the topic in their own time and shown considerable commitment (Glashan et al., 2004). Some studies show that the presence of an assistant can damage the teacher-student relationship and reduce interaction with the teacher (Giangreco et al., 1997). This may be avoided by the teacher and assistant sharing responsibility for the autistic student and developing strategies together (Teffs and Whitbread, 2009).

Studies show that many assistants have little or no autism specific training and often little knowledge of the school rules (Glashan et al., 2004), although many had taken courses or researched the topic in their own time and shown considerable commitment (Glashan et al., 2004). Some studies show that the presence of an assistant can damage the teacher-student relationship and reduce interaction with the teacher (Giangreco et al., 1997). This may be avoided by the teacher and assistant sharing responsibility for the autistic student and developing strategies together (Teffs and Whitbread, 2009).

There is currently a small body of literature on inclusive education of autistic children, with only a few studies in Poland, sometimes in the context of inclusive education more generally. Research studies globally indicate numerous common issues in working with autistic children and young people across different educational settings to facilitate inclusion, which require further research and investigation. There are also a number of recommendations for good practice, drawn both from the Polish context and internationally. They include the importance of a social model perspective, particularly from the head teacher, experiences of autism and the need for training, but have limited scope and are dispersed across the literature.

Most of the literature is from English speaking countries and there is minimal literature from the perspective of teachers or from a social model/neurodiversity perspective, particularly in the Polish context. The limited literature in the Polish context often focuses on “therapy” rather than education. Some of the recommendations draw on research involving only a very small number of autistic children and in some cases their derivation from the underlying research has not been explained. This paper aims to fill some of these gaps and advance understanding by investigating inclusive education for autistic children in Poland. It is embedded in the social model of disability, the Polish European Agency vision of inclusive education, and a research strategy as discussed next.

3. Methodology

The research used a survey of teachers and education professionals working with autistic students to broadly investigate:

1. What is the current state of inclusive education for autistic students in Poland?
2. How does existing practice relate to theory?
3. How can experience and good practice of working with autistic students be generalised from special to mainstream/inclusive education?
4. What are the enablers and barriers to inclusive practice?
5. What are the lessons from Poland for other countries in the process of moving towards inclusive education?

The theoretical analytical framework was based on the social model of disability. The survey approach enabled the collection of quantitative data and investigation of its statistical significance (not reported here due to space considerations) and qualitative accounts capturing the richness of personal experience. Ethical considerations were central to the study design and throughout the research process. Ethical approval was obtained from the University of Glasgow College of Science and Engineering Ethics Committee. In line with ethical procedures, completion of the
questionnaire was voluntary, all of the responses were submitted anonymously and participant
confidentiality and data protection were assured. The first page of the questionnaire included an
information sheet explaining the research.

The first section of the two-part questionnaire covered personal information for statistical
correlation purposes, including gender, profession, main place of work, years of experience and
the main subjects taught and/or the main areas of professional expertise. The second section
collected quantitative and qualitative data on topics such as working with autistic, including
non-verbal, students, additional teachers and training. Rating scale questions investigated the
importance of both various issues in work with autistic students and suggestions for support.
Further open questions investigated difficulties and good practice in working with autistic
students. Since full inclusion should affect all aspects of education and to avoid biasing the
results, there was no explicit mention of inclusion in the questionnaire. This allowed inclusive and
non-inclusive practices to emerge naturally from participant responses.

Quantitative data analysis used calculation of percentages and the average value for the rating
scales. The quantitative data were merged with the qualitative data (although not presented here
due to space constraints). Analysis of the qualitative data was carried out without translation and
only the chosen quotes were translated (by the first author).

Qualitative data analysis followed a interpretivist thematic approach which allows for a nuanced
and complex understanding of data. A thematic content analysis was carried out (Joffe
and Yardley, 2004). This meant moving from a description of the data to emerging themes and
analysis, and then the broader implications of the data. First-order themes arose out of the data
without a predetermined reference framework to capture the essence of the data and delimit
bias (Boyatzis, 1998; Braun and Clark, 2006). These were then reorganised into groups via
second-order coding. Sub-themes via data interpretation led to overarching themes around
enablers, barriers, inclusion and exclusion. Thematic analysis of these identified several
sub-themes as discussed in the results below. However, due to space constraints, mostly
responses to open-ended questions are presented.

The methodological strengths of the project include the combined approach as both quantitative
descriptive statistics and qualitative thematic analysis enabled a more robust and comprehensive
understanding of the research problem, setting, context and language/experiences than either
approach alone. Merging the two data sets also minimised researcher bias and enabled the
collection of more data than, say, just interviews. This meant combining deductive and inductive
thinking, and analysing the qualitative findings to validate the quantitative responses. Other
strengths of the project include its originality, research on a rarely studied population,
well-formulated research questions derived from a thorough investigation of the literature and
timeliness related to debates on education and inclusionary including Poland’s transitional status.

Limitations of the study include the relatively small sample size, though category saturation was
achieved, and the sampling approach via accessing workshops, possibly leading to bias towards
more interested and motivated participants. Resources permitting, the project would also have
supplemented the data gathered with individual interviews. Nonetheless, the study was
theoretically informed, empirically grounded and collected robust data in order to capture
meaningful patterns of experiences and views to generate an in-depth analytical understanding of
inclusion practices in Poland.

4. Results and discussion

4.1 Overview

In total, 121 responses were received, 115 at workshops and other events and six electronically.
120 useful responses remained after discarding one not from a teacher or other education
professional. Participants represented the diversity of roles across the sector with regards to
location, profession and experience, though the greatest numbers were primary and preschool
teachers (36.4 per cent), followed by educational therapists (19.4 per cent). Two-thirds worked in
preschool (21.2 per cent), primary (33.1 per cent) and secondary schools (12.7 per cent). Other
locations included clinics (12.7 per cent) and therapy centres (11.9 per cent). The large majority of
female participants (91.7 per cent) follows the gender distribution in the sector and other surveys (e.g. McGregor and Campbell, 2001). The majority of school-based respondents worked in special schools (57.9 per cent), with only 15.8 per cent in mainstream schools and 6.6 per cent in mainstream and integrated schools. This indicates that, at least at pre- and primary school level, the majority of autistic children in Poland were in special schools. It adds to the picture of the extent of inclusion and integration worldwide, confirms evidence in Hersh et al. (2014) on the state of educational inclusion in Poland and shows Poland is not (yet) a “mainstreaming” country like Scotland and the USA (McGregor and Campbell, 2001; Teffs and Whitbread, 2009). The research also adds the perspective of teachers and other educational professionals in a country where special education for autistic children is still the expectation.

The majority of respondents were currently working with autistic students (86.7 per cent), with a small number having done so in previous, but not the current year (8.3 per cent). Three quarters (74.8 per cent) had worked with non-verbal autistic people. Respondents most commonly worked with 2–5 autistic children and young people (40 per cent). Just over half of respondents had a teaching assistant and nearly 40 per cent did not, with small numbers having one “sometimes” or “rarely”. This seems lower than current literature suggests, possibly due to the relatively poor economic situation in Poland. In about a third of 22 replies, the assistant supported only autistic children, whereas about two-thirds supported both autistic and other disabled children. In the majority of 19 replies, the assistant supported a small group of 2–5 students. In nearly 60 per cent of 31 responses, the assistant was present at all classes, in about a sixth of cases only at academic lessons and in nearly 10 per cent for about half the teaching time. Limited or no attention has previously been given to the circumstances of provision of additional teachers or assistants.

4.2 Communication

Communication was considered important by over half the participants, “difficult” by over a quarter and nearly a fifth made suggestions for good practice. This is in line with current surveys showing communication is one of the most demanding issues for participants (Urbanovská et al., 2014). Appropriate communication strategies are clearly important for inclusion. However, non-autistic and autistic people may have different attitudes to communicating and engaging in dialogue which can affect inclusion and require special strategies.

Many participants focused on finding an effective form of communication, with comments including “to find a method of communication that is accepted by the autistic person” and “developing points of communication, so the autistic person feels less frustrated”. Difficulties included developing appropriate communication systems, understanding needs and communication with non-verbal people, which was most highly scored in the closed evaluation of important questions. Specific comments included “reaching them in the case of serious autism” and “expanding the types of communication suitable for autistic people and adapted to the way they think”. One respondent expanded with:

The child’s inability to communicate his/her needs and wants […] instead of answering the question the child repeats it or gives all possible answers and lack of communication about their feelings.

Participants had used a wide range of different communication methods with non-verbal autistic children, with many respondents using several different ones. This issue has received minimal discussion previously. The most popular approaches were graphical, in line with the literature on the effectiveness of interactive visual learning materials and cues with autistic students (Carnahan et al., 2009). Other popular approaches were gestures, Makaton and speech. Only three respondents used a national sign language. Many of these communication systems are most suitable for expressing basic needs, but less so for more complex communication. This is probably appropriate for pre- and primary school children, but could be restrictive later in life or act as a barrier to inclusive education, as students generally need to engage in increasingly complex communication as they progress.

Suggestions for good practice generally covered the use of communication systems for non-verbal students, in line with existing literature (e.g. Ganz et al., 2012). In many cases a particular communication system, such as PECS, PEC or pictograms, was mentioned without
further comments. However, one respondent suggested “classes with the support of non-verbal communication methods such as Makaton and PCS symbols”. Many of the comments showed an awareness of the child’s perspective, empathy with probable feelings, and respect and recognition of the importance of a communication system appropriate to the particular child. Despite considerable discussion in the literature of communication with autistic students (e.g. Garncarz and Rybka, 2012), teachers’ and other education professionals’ views seem largely unreported.

4.3 Training

Just over 90 per cent of participants had some autism training. However, half of them had paid for it themselves, with the employer only paying part or all the costs in just over a third of cases. Very few had attended training fully or partially in work time. The majority had attended training outside work, and 10 per cent had taken leave in order to do this. The high percentage of respondents who had attended training compared to the literature may be due to greater motivation and consequently willingness to pay themselves and attend in their own time. However, the recognised importance of training means that access to it should not be dependent on self-payment and attending outside work. Taking the possibility of bias towards more interested and knowledgeable respondents into account only strengthens this conclusion, as less interested teachers are unlikely to be willing to pay for training or to attend in their own time. Proposals for improving their understanding of autistic students included “good contact with a lot of people with autism” and “practice is important”.

Participants responses showed their interest in training, with regular training receiving the second highest score of the various proposed solutions and a large proportion of respondents (21.3 per cent) raising the need for more and better training. This agrees with the literature on the general lack of autism training despite high demand and perceived training needs (McGregor and Campbell, 2001; Teffs and Whitbread, 2009). Meeting other teachers and autistic adults, which can contribute to training, were also highly scored. Several participants wanted fully financed training, with “a need for specific training courses teaching approaches for work with [autistic] students […], coping with aggression and self-harm”; “greater accessibility (including financially) of professional training for specialists […]; and “a professional course on how to work with autistic people. Such courses are very expensive”. However, one teacher complained that “it is very difficult in our school to motivate teachers to participate in training and workshops about autism”. This may have been explained by the need to pay for training themselves and attend outside working hours even though training often supports inclusive practices.

4.4 Behaviour, environment and resources

Specific behaviours and a lack of understanding of their causes were a significant source of difficulties. Aggression, self-harm and lack of social interaction were all considered very important and prevented classroom inclusion. This agrees with the literature (Glashan et al., 2004; Humphrey and Lewis, 2008; Urbanovská et al., 2014), although there do not seem to have been any analogous surveys previously. Behaviour also provided information, for instance “to observe the child’s behaviour in order to read from it what the child needs at a particular moment”. Teachers also recognised that “difficult” behaviour was often a response to external circumstances:

Understanding the sources or stimulation which causes [aggression and self-harm] and the student who is aware of his/her “otherness”, but does not accept it. S/he does not want help […] but at the same time gets angry when things don’t work.

This led to responses of managing an inclusive environment, for instance “removing or reducing sensory stimulation which causes difficult situations” and “foresee situations in which the student will be oversensitive”. Recognition that behaviour is a way to communicate needs or a reaction to stimulation is in line with the literature on behaviour as communication about desires, needs, fears and concerns (Pietrowska, 2013). Teachers recognised that some of the difficulties they experienced were a consequence of their lack of knowledge and understanding of autism, for instance “I sometimes understand their untypical behaviour and understand them
and “very limited knowledge of autism”. They also expressed difficulties in “recognising the needs of the child” and “not knowing their preferences”. This raises issues of potential difficulties in inclusive education where teachers may have even less knowledge, training and opportunity to learn from experience.

Specific comments on the teaching environment included the importance of “an appropriately prepared place of work”, “ensure(ing) quiet and calm in the group” and “adapting the environment as far as possible to the child’s needs”. Generating an appropriate environment was difficult for teachers concerned about inclusive spaces. Thus, due to “different sensory perceptions sometimes despite trying hard I cannot create an environment which is comfortable for them”. This parallels recognition of the value of adjusting the environment to reduce sensory overstimulation (e.g. Ruble and Dalrymple, 2002). A lack of resources also made it more difficult, for example “money to adapt the room fully to work with the child. It’s frustrating when I see that the child has potential, but the conditions are unfavourable (and there is no money to change this)”. Financial resources for support in the education of autistic children in Poland have been noted as a barrier in the literature (Buława-Halasz, 2015). The success of inclusion is likely to depend at least in part on the ability to create suitable “quiet” environments for autistic students. This could be more difficult in a larger school, though more resources might be available.

Resource problems were a reoccurring theme, including “the impossibility of employing additional specialists […] help for the teacher, due to the lack of financial resources […] (despite the need)” and “stress due to the limited organisational possibilities”. Additionally, the limited available resources were not always used effectively. For instance, “the school system is not adapted to [autistic students’] needs”. While the lack of resources should not be used as a justification for not implementing inclusive education, the availability of sufficient and appropriate resources clearly facilitates inclusion.

4.5 Social interaction

Several participants raised autistic students’ relationships and social abilities, paralleling concerns in the literature about encouraging social interaction and developing social abilities (e.g. Glashan et al., 2004) to enhance inclusion. This includes contact with teachers or other professionals and raises issues of the social dimension of educational inclusion. However, it is important to avoiding assumptions about the frequency and type of socialising or pressurise autistic students to socialise.

Suggestions for developing social skills, included “helping autistic people understand the system of social obligations” and “preparation for managing in a social group (to the extent of their possibilities)”. On the negative side “the inability to follow group rules and norms” was considered a difficulty. Recommendations for good practice included peer group involvement, for example:

We introduced a buddy system into classes with autistic students. The neurotypical students looked after the autistic children, in classes they invited them to take part in group work, they spent the breaks with them […] the neurotypical students themselves understood the sense and the need for such a system.

Other approaches were based on educating non-disabled children and inclusive approaches to teaching social skills, including “teaching the children how to understand the child with autism […] what his or her behaviour means, how to play with that colleague, etc”. and “lessons in small groups (2-3 children) for autistic and non-disabled children about social abilities and communication”. This last proposal indicates the potential for autistic and non-disabled students to learn from each other and develop social strategies and interactions that work for both groups and draw on their strengths. All these approaches go beyond the pure physical presence of autistic students in the classroom and encourage their active inclusion and participation in class activities.

4.6 Integration and inclusion

Several participants showed an interest in encouraging integration. Suggestions for good practice leading to integration included “total integration as its lacking” and “continuing integration
of autistic children from preschool to school”. Participants frequently focused on inclusive social events, such as:

Common socials and outings for students with and without autism, between-class social events for children with different degrees of disability, integrating social events for students from our school and the mainstream school.

Other suggestions related to giving autistic students a role and responsibilities, for example:

Including the student in the life of the class, asking what s/he thinks about particular initiatives, entrusting him/her with certain responsibilities […] selecting the student as team captain […], engagement in class plays etc.

The suggestion for making autistic students team captain is particularly interesting, as it is suggested that team selection is a type of activity to be avoided, as it often leads to exclusion (Williams et al., 2005). With appropriate support and resources, giving autistic students roles and responsibilities could counter stereotypes, develop social skills and maximise strengths and inclusion. While the need to “prepare non-disabled students for ‘otherness’, including for contact with non-verbal autistic students” was noted, one teacher considered that “the students who are in classes with autistic students are tolerant, friendly, caring to them”. This follows a recommendation in the Polish literature on the importance of tolerance and openness by students and staff (Korulska, 2013). However, acceptance and respect would be preferable to tolerance. A related issue was the need for autistic children to feel safe and comfortable, including “respect (for classmates); “the widest possible understanding […] by society to avoid them being objects” and “ensuring acceptance and […] feelings of safety for the child”. To achieve this, respondents typically suggested additional teachers or assistants which received their highest score of the various proposed solutions. This parallels teachers’ preferences in the literature for a teaching assistant (Giangreco et al., 1997).

Assistants were considered necessary for non-academic as well as academic classes, as “the fact that students do not need to sit on a bench during gymnastics classes does not mean that an autistic student does not suddenly lose control in front of the other students”. In some areas, organisational polices prevented the employment of assistants. “In my preschool the mothers employed [an assistant], (using a loophole in the rules) […] in other schools an autistic person would not have this possibility”. In some cases, assistants were not employed even when resources were available. “Every school receives a large subsidy for children with autism, but when they cause problems, instead of employing an assistant, they are pushed out of school”.

5. Inclusive practice

While nearly 60 per cent of respondents worked in special schools and only just under a quarter in mainstream (and integrated) schools, participants provided a number of examples of inclusive practice. These included buddying systems and giving autistic students responsibilities, such as team captain. Several participants showed attitudes compatible with inclusion. In particular, they tried to understand the perspective of autistic students and their reasons for their behaviour rather than blaming them for “difficult” behaviours. Thus, while there is still relatively limited physical inclusion in Poland, attitudes and practices are frequently compatible with inclusion.

The barriers to inclusive practice include barriers to both moving autistic students to mainstream schools and ensuring inclusion within a particular school. The survey investigated the latter. Barriers identified include accessing training, difficulties in understanding autistic perspectives and needs, and communicating with autistic students, and lack of resources and organisational structures. Overcoming the barriers to accessing training will require costs to be covered and participation during work time. However, it is not just access to training, but its content and underlying philosophy which are important. In particular, research shows the importance of the social model in supporting inclusion (Stanovich and Jordan, 1998). Practitioners in Poland have recently become aware of and started to adapt the social model (Pasterny, 2017). However, even where the social model is recognised in institutional policies, the medical model frequently still dominates in practice. Thus, training should include the social model and its implications and encourage culture change.
The difficulties teachers experience in communicating with and understanding autistic students highlight some of the barriers to inclusion and are the other side of English autistic students’ concerns that their teachers lack understanding of them (Humphrey and Lewis, 2008). Currently, mainly non-autistic teachers teach autistic (and other) students. There is therefore a need to investigate the barriers to autistic people becoming teachers and implement measures to overcome them. Although each autistic person is very much an individual, autistic adults are a potential source of expertise, able to offer lived experiences of communication issues and insight into the perspectives of autistic students, making increased contact and discussion with them helpful.

Facilitators of inclusion include the very positive attitudes of teachers, their willingness to understand autistic students’ perspectives and inclusive practices, including provision of quiet environments (Rubie and Dalrymple, 2002) and small group teaching. Approaches already used to support inclusion include buddy systems and allocating responsibilities such as team captain. If used appropriately, this can transform class dynamics and perceptions of autistic students across a wide range of professionals.

Lessons from Poland for other countries in transition to inclusive education include the need for an appropriate understanding of inclusion. It is therefore suggested that models or evaluation of the educational inclusion of autistic and (other minority group) students include:

- opportunities to exercise responsibilities and take leadership roles;
- social as well as educational inclusion and the development of enjoyable social opportunities for autistic students;
- consultation with students and parents;
- valuing diversity and focussing on the strengths rather than weaknesses of all students; and
- sensory “quiet” environments.

In relating participants’ experiences to theories of educational inclusion and understandings of autism, it is useful to note: the three main educational models of segregation, integration and inclusion; that Poland is moving from segregation to inclusion; and educational provision is affected by medical, social or neurodiverse understanding of autism, with considerable overlap between the social model and neurodiversity.

Participants’ experiences covered the full range from exclusion due to unwillingness to provide support and use available resources (“but when they cause problems, instead of employing an assistant, they are pushed out of school”) to giving positions of responsibility (“selecting the student as team captain (in sport), engagement in class plays”). The first approach may be based in a deficit understanding of autism with the child seen as a source of “problems” rather than alternatives based on neurodiversity and/or the social model of disability (Barnes, 1994). Neurodiversity would consider differences in understandings of the world, sensory and cognitive processing and sensory overstimulation as leading to differences in behaviour (Davidson and Orsini, 2013). Solutions would include providing an environment which supports the functioning of autistic students. The social model would look at social, attitudinal and infrastructural barriers and ways of overcoming them. Thus, despite their differences, neurodiversity and the social model are complementary and frequently lead to similar solutions.

Comments about “respect” and making autistic children feel “safe” and “comfortable” relate to both neurodiversity and the social model in recognising the barriers experienced and the need to overcome them. This is an advance on the recommendation of tolerance and openness in the Polish literature (Korulska, 2013). It is further seen in the need for “the widest possible understanding of (autistic people) by society to avoid them being objects”. This may imply recognition of the need for a rejection of deficit models (autistic people as “objects”). However, even though calls for understanding are positive, they tacitly imply what could be called the extreme differences of autistic people. Otherwise, this understanding would not be required. Discussion of managing the environment and “removing or reducing sensory stimulation which causes difficult situations” recognise neurodiversity with its associated differences in the perceptions and responses of autistic and non-autistic people and the social model acceptance of the problems caused by barriers and removal of them.
Comments such as “to find a method of communication that is accepted by the autistic person” and “communication in different ways to get to the student” show that teachers recognise the existence of barriers to effective communication with and by autistic people and are taking responsibility for trying to overcome them in accordance with the social model. These comments also follow the neurodiversity perspective of recognising and respecting difference in thought and communication. However, comments on “The child’s inability to communicate his/her needs and wants” indicate a focus on “deficits”. Thus, teachers should be educated about the social model to both challenge practices based on the medical model and enable those already using a social model approach to ground it in theory.

6. Recommendations
The following practical recommendations have resulted from the empirical survey data and literature and will better enable Poland’s “vision” of inclusive education for all:

1. Supporting and teaching autistic students:
   ■ an individual teaching assistant or support teacher for each autistic student who provides effective support, but avoids gatekeeping their access to the teacher or other students;
   ■ small group teaching and individual planning for autistic students, including individual motivation systems and transition support; and
   ■ a positive, but realistic, attitude to each autistic student’s academic and social potential and (pedagogical) approaches which draw on strengths and use (intense) interests.

2. Provision of a safe environment for autistic students:
   ■ minimising sensory disturbances and overstimulation in activities;
   ■ inclusive climate where all (autistic) students feel safe and respected by all; and
   ■ contact or visits to schools by autistic adults acting as role models.

3. Resources and inclusion:
   ■ Adequately funded schools and sufficiently high-quality resources to fully support quality teaching for (disabled) students; and
   ■ Measures to promote inclusion: active involvement of non-disabled students, inclusive social events, opportunities for autistic students to take on roles and responsibilities;

4. Training and information for professionals:
   ■ regular funded training on working with autistic students with significant input from autistic adults; and
   ■ training, including understanding autism from the perspective of autistic people; the social model of disability and neurodiversity; communication with non-verbal autistic people; responding to “challenging” behaviours.

7. Concluding comments
This paper draws on the experiences of teachers and other education professionals working with autistic students in Poland to answer five important questions about educational inclusion of autistic students. Its significance includes evidence-based recommendations for good practice and a model of educational inclusion, applicable both within and beyond Poland. While paralleling the literature, the paper goes much further in relating teachers’ experiences of educational inclusion to different models of disability; raising issues not previously discussed and capturing the perspective of teachers and education professionals.

While the Polish government, like other countries, endorses the principles of inclusion embedded within a social model of disability, practical implementation has been limited. For example, the research shows most autistic students are still in segregated settings such as special schools or
units” in mainstream schools. Despite the recognised importance of appropriate training, less than 4 per cent could attend this fully in work time and half self-funded. The positive attitudes from concerned and dedicated educators trying to understand and support autistic students give a positive message for the prospects of inclusion, but not the lack of resources, suitable conditions and support, knowledge and training that remain despite Poland’s vision of inclusivity.

Inclusive practice is central to the disability rights agenda worldwide and research shows a social model perspective often leads to more effective and inclusive teaching than a medical model (Stanovich and Jordan, 1998). Developing successful inclusionary practice is a long process that requires commitment, involvement and further research. Thus, evidence is urgently needed on the number of autistic students in mainstream settings in different countries. This includes the factors that affect inclusion and the impacts of inclusion on learning outcomes, academic skills and other success factors which then enable the sharing of good practice across countries.

Overall, greater attention to these issues in research and practice will enable autistic children and young people to benefit from the inclusive educational provision they deserve, give teachers the necessary skills and resources for success, and enable non-disabled children and adults to benefit from diversity and contact with autistic students.

References


Davidson, J. and Orsini, M. (Eds) (2013), Worlds of Autism: Across the Spectrum of Neurological Difference, University of Minnesota, Minneapolis, MN.


Further reading


Corresponding author
Sharon Elley can be contacted at: s.t.elley@leeds.ac.uk
The sensory school: working with teachers, parents and pupils to create good sensory conditions

Nicola Martin, Damian Elgin Maclean Milton, Joanna Krupa, Sally Brett, Kim Bulman, Danielle Callow, Fiona Copeland, Laura Cunningham, Wendy Ellis, Tina Harvey, Monika Moranska, Rebecca Roach and Seanne Wilmot

Abstract

Purpose – An alliance of schools and researchers formed a collaborative community of practice in order to understand and improve the sensory school environment for pupils on the autistic spectrum, and incorporate the findings into school improvement planning. The paper aims to discuss this issue.

Design/methodology/approach – Representatives of special and mainstream schools in South London and a team of researchers formed the project team, including an autistic researcher. The researchers and a named staff member from each of the schools met regularly over the course of 18 months in order to work on an iterative process to improve the sensory experience pupils had of the school environment. Each school completed sensory audits and observations, and was visited by members of the research team. Parents were involved via meetings with the research team and two conferences were organised to share findings.

Findings – Useful outcomes included: developing and sharing of good practice between schools; opportunities for parents of autistic pupils to discuss their concerns, particularly with someone with insider perspective; and exploration of creative ways to achieve pupil involvement and the idea that good autism practice has the potential to benefit all pupils. A resource pack was produced for the schools to access. Plans are in place to revisit the initiative in 12 months’ time in order to ascertain whether there have been long-term benefits.

Originality/value – Projects building communities of practice involving autistic people as core team members are rare, yet feedback from those involved in the project showed this to be a key aspect of shared learning.

Keywords Communities of practice, Collaboration, Autism, Parents, School environment, Sensory sensitivities

Paper type Case study

Purpose

Challenges can be created for autistic pupils by the sensory environment of the school. (Ashburner et al., 2006; Howe and Stagg, 2016; Lane et al., 2012; Martin and Milton, 2017). It can feel too loud, too noisy, too fast paced, too smelly and too confusing. Pupils may therefore become overwhelmed and react accordingly either by becoming quite withdrawn (shut down) or rather more expressive about their feelings (Milton, 2017). The latter condition, often referred to as a meltdown, can attract the “challenging behaviour” label. Authors of this paper prefer the expression “indicators of distress” and recognise that the term “challenging behaviour” can be used pejoratively in relation to ways in which an autistic pupil may respond to situations which they find challenging such as a sensory environment which is overwhelming (Martin and Milton, 2017). Problematising the term “challenging behaviour” is also a feature of research by Orsati and Causton-Theoharis (2013).

Received 4 October 2018
Revised 25 February 2019
Accepted 25 February 2019

The Alliance funded the research.
Sensory processing differences in autism were incorporated into autism diagnostic criteria for the first time in the most recent edition of *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013). Sound, sight, smell, touch and taste are not the only sensory modalities. Perception of body position, coordination, motor-planning, balance and interpreting pain, hunger, thirst or temperature may be part of the autistic sensory world too (Bogdashina, 2016; Conson *et al*., 2016). Dyspraxia is common within the autistic population (Caçola *et al*., 2017). Sensory overload can initiate and exacerbate stress and anxiety (Neil *et al*., 2016; Milton, 2017). If an autistic person is in a state of “meltdown” or “shutdown”, it is likely that sensory overload may be a factor. It is necessary to understand that the triggering conditions could involve a complex interaction between a range of sensory modalities and environmental conditions.

Building awareness of the sensory experiences of autistic people in order to support autistic pupils in school effectively is essential in order to intervene with understanding. Labelling a behaviour as challenging without getting to the route of its cause can lead to unhelpful practices. Individuality is key as autistic people will not all experience the sensory world in the same way. Some talk about difficulty integrating sensory information and/or refer to feeling overloaded and panicly (Martin and Milton, 2017). “Synaesthesia" in which sensory information becomes hard to interpret has been described by autistic authors such as Tammet (2007). “Everyday experiences” can become highly stressful and anxiety-raising for some autistic people whose senses become overwhelmed in their struggle to deal with an excess of information (Milton, 2017).

In this project, an alliance of schools and researchers formed a collaborative community of practice (Wenger, 1998; Milton, 2017) in order to understand and improve the sensory school environment for pupils on the autistic spectrum. Learning from the project was to be incorporated into school improvement planning.

**Approach**

Researchers from London South Bank University (LSBU) were approached by an alliance of schools to support a school-based research project. Funded by the alliance the focus was on gaining a better understanding of the sensory environment of the participating schools as experienced by autistic pupils. The findings were to be used to make evidence-based environmental improvements, specifically for autistic pupils. Representatives from each of five schools within the alliance formed a research group with the Critical Autism/Disability Studies (CADS) research group from LSBU. Project participants met on a termly basis for an academic year. After completing a sensory audit (Autism Education Trust, 2012) which was introduced in the initial meeting, each setting chose a particular area of interest on which to concentrate. Clearly the task of looking at every facet of the sensory experience of all of the autistic pupils in each of the settings would be impossible within the limitations of the project. The group felt that sharing knowledge with each other through the building of a collaborative community of practice (Holmes and Meyerhoff, 1999; Wallerstein and Duran, 2010; Wenger, 1998) would be the most practical way forward in making improvements to the pupil experience.

After the initial meeting the researchers negotiated with the schools and mutual agreement was reached about the approach to the task. Teachers and researchers observed *in situ* and discussed particular situations including playground activities, responses to noise and visual clutter and food sensitivities. Various initiatives were tried out and evaluated through discussion with the research group based on observations of how pupils responded. These included the use of Clever Classroom techniques (Barrett *et al*., 2015), visual timetables Humphrey and Parkinson (2006), ear defenders, sensory rooms, quiet play spaces and techniques such as Intensive Interaction (Caldwell, 2014) and a low-arousal approach (Martin and Milton, 2017). Experiences were shared and reflected upon at research group meetings and on researcher visits to the schools. In addition, two conferences were organised to develop an understanding of autism amongst the workforce and parents’ events were arranged which had the spin off benefit of giving mums and dads the opportunity to talk to each other and to ask an autistic researcher very direct questions. Advice was sought from a doctoral researcher at LSBU about pupil involvement in creative activities designed to enable pupils to input into the project (Brett, 2016). Findings were
translated into a written report, conference presentations, staff development activities and a useful dynamic resource pack for each of the schools. The resource pack was developed, with a view to it being updated via the ongoing addition of new materials. Sustainability of the community of practice will also be evaluated in 12 months’ time.

This piece of work does not claim the merit of a large-scale project with a rigorous methodology. It was more of an experiment in getting together school staff, who were not experienced researchers, and finding a way to work together in order to explore sensory aspects of school experience for autistic pupils. The aim of making the environment more autism friendly through a shared iterative process was central for all participants. University researchers with expertise in the field of autism were there to support the process, and worked closely with teachers from five schools from the Teaching Alliance. These included two special schools, and three “mainstream” schools, one of which had a specific autism provision. Participating special schools had both primary and secondary provision; the others were all primary schools. The project started with an initial meeting with school staff near the start of the academic year, and this report was written 18 months later. In discussion with the group, it was agreed that sensory audits (Autism Education Trust, 2012) would be completed by teachers to highlight awareness of why sensory concerns might be an issue. Following discussion of sensory audits, a series of school visits were planned in order for the researchers to observe particular scenarios and then discuss their findings with the school staff. Findings were reported back to the research group and points for good practice were shared. A mid-term conference for teachers was organised and evaluated six months into the project and a second conference is planned. Parent activities were built in and evaluated. A resource pack was developed for schools and is an ongoing project to which information can be added.

Activities and findings

Conferences

A large-scale interim conference was held at the midpoint of the research and school staff and parents were invited to attend. Speakers included the project researchers and others who had been identified as having useful insights to share. Speakers included an occupational therapist with an understanding of sensory issues and autism and a practitioner with expertise in Clever Classrooms (Barrett et al., 2015). Feedback was positive and delegates particularly commented on the benefit of having the opportunity to learn from insights directly from an autistic researcher with a PhD in autism who also had experience of parenting an autistic child. The second conference has yet to take place at the time of writing. It will take the form of a report back on the findings of the research which are outlined in this paper and a look forward to ensure the sustainability of the project. Feedback from the conference will also inform the training programmes of the teaching schools.

Pupil involvement

Throughout all of the research meetings, the discussion was punctuated by the ongoing refrain that it is necessary to see the issues under discussion from the perspective of the pupils affected by them. For those who communicate effectively verbally, it was easy enough just to ask them, for example, about their experiences of going out in the playground. For others, parental insights were clearly useful but only part of the story. Fortunately, LSBU’s CADS research group includes a doctoral student who was completing a thesis at the time about accessing the authentic voices of pupils who do not communicate easily via verbal means alone (Brett, 2016). Dr Sally Brett’s research confirms the premise that pupils’ voices need to be acknowledged to be frequently muddled, ambiguous, and contradictory and bound by context and complex interactions. Nevertheless, the findings generated rich data that unequivocally demonstrate that unconventional voices have a great deal to say and should not be excluded from participation or assumed to be inconsequential.

At the time of writing this paper, a pupil-focussed creative event is being planned, based on Sally Brett’s work, and designed to give pupils the opportunity of expressing their ideas about what
they like and do not like about their school. Dr Brett utilises creative methods such as getting students to draw their impressions of situations and then describe in whatever way they are able the meaning of their drawings. Without putting words into the mouths of the children, the researchers aim to gain some understanding of the way pupils perceive their school in relation to its smells, sights, and sounds and so on using forms of supported communication appropriate to the individual. These are likely to rely quite heavily on the use of images. Brett’s work involving creating images with children to enable them to express themselves will be key in the next phase. We anticipate reporting on this aspect of the project in a subsequent paper.

Parent events

Parents attended the interim conference and had an additional opportunity to meet with the autistic researcher from the LSBU team who could also bring to the table the experience of parenting a teenager who is on the spectrum. The feedback received from mums and dads was overwhelmingly positive, many commenting that they had not actually spoken to an autistic, articulate, well-informed adult before. The insights arising from such an insider perspective were felt to be extremely useful and illuminating by parents who also commented that they felt able to ask all sorts of questions and receive very honest answers. Questions ranged beyond a focus on sensory concerns into broader issues focussed particularly around their hopes and concerns for the future. Interacting with a successful autistic academic was experienced by parents as reassuring. They particularly liked the fact that the autistic researcher was very positive about autism as a neurological difference and practical about ways to recognise and address barriers. Parents requested further workshops focussing on topics such as sleep and diet.

As well as being enthusiastic about meeting with the LSBU autistic researcher, parents also loved talking to each other. Their children are not all in the same school, and even some of the parents of children in the same school did not know each other. School transport home reduces incidental opportunities for playground meetings between parents so opportunities for getting together need to be carefully orchestrated. They also have to take into account practicalities such as timing and childcare. Most parents agreed that daytime meetings, when their sons and daughters are in school, would be easier in terms of childcare, although for others time off work was a problem. The idea of a social event, with the possibility of including the children, was suggested. Parallel activities in different rooms, such as a parent workshop and a separate facilitated pupil activity, might get over the hurdles of childcare and taking time off work. It may be that by introducing parents from different schools to each other a support network could grow organically. Providing the opportunity and stepping back can be effective. It is not necessarily the responsibility of the schools to grow the parental support network although the possibility of offering space for meetings was discussed and is entirely feasible.

Involvement of autistic researcher

The value of having an autistic researcher on the project has already been articulated, particularly in relation to the way parents responded. While the autistic researcher was paid for this project they are not a salaried LSBU member of staff. As is frequently the case, the issue of who pays for the time and expertise of an autistic expert not in full time employment raises its head (Martin et al., 2018). CADS at LSBU is totally committed to the authentic involvement of autistic researchers and includes this principle within funding bids as well as providing opportunities for autistic academics to work together via Participatory Autism Research Collective (PARC) (2018). If the money can be found there could certainly be further ongoing opportunities for parents to learn from autistic adults.

Ongoing staff training

Staff working outside special school settings in particular felt that refreshing the autism awareness of “mainstream” staff was essential, although all staff agreed that ongoing training and development was important for everybody. One teacher commented that at their mainstream school, staff sometimes expressed concerns about the behaviour of some autistic pupils who might, for example, make “unnecessary noises, be picky eaters or flap their hands for no reason”. The teacher felt worried that sometimes these observations were followed by suggestions that
children needed to be in a special school setting or an inclusion unit. It was felt by the researchers that helping all staff to develop a greater awareness of why autistic pupils might be doing certain things would be the most useful approach. Any sort of “intervention” without understanding is likely to be ineffective and enabling staff to better understand their autistic pupils would be the aim of staff development activities (Martin and Milton, 2017). Again the importance of insider perspective was highlighted, i.e. if you want to know why an autistic person does x or y, a good starting point would be to ask them (see Chown, 2017; Murray et al., 2005; Milton, 2017; Sainsbury, 2000; Sinclair, 1993; Williams, 1996 and others). If the individual does not communicate verbally very easily a more nuanced approach to asking them may be required (Brett, 2016). Autistic experts with lived experience of autism are also be well placed to provide some useful ideas (Martin and Milton, 2017).

The group talked about de-emphasising the “special” aspect of education in staff development and emphasising the shared responsibility focus. The resource pack includes the SEND review guide (DFE) which provides an opportunity for schools to self-evaluate, and also to request an independent review if required. This could potentially provide a useful platform for bespoke training built on self-assessment and embedded into school improvement planning. Principles of Universal Design for Learning (UDL) (Meyer et al., 2014; Milton et al., 2016) are also covered within the resource pack with the aim of de-emphasising “special” and focussing on embedded good practice to create schools which cater effectively for all members of their community.

Case studies from individual schools revealing common themes

Feedback from the schools came in the form of case studies focussing on a particular aspect of the sensory environment, looking at the result of support strategies and sharing reflections and knowledge with the rest of the research group. It was noted by the researchers, however, that the plethora of sensory audit and other tools sent to the teachers at the beginning of the project could have been discussed and analysed in more detail, and the time constraints of the project meant that information recorded in these documents was not utilised to its full potential. The teachers did, however, value the opportunity to remind themselves of the importance of analysing the school’s sensory environment, and trying to look at it from an autistic person’s point of view. With more resources, a more methodical consideration of the information collected could have added to the project’s findings; for example, at the beginning of the project, teachers suggested that the impact of smell, such as in dining areas, had probably been under-examined.

The researchers also acknowledge that the following are case studies in a fairly basic sense. Although it could be argued that in some of these case studies, there is a certain amount of subjectivity in how the results of the strategy are reported, the teachers are able to observe the outcomes in a more natural setting. In being familiar with the pupils, the teachers are well placed to determine how effective a strategy had been over time (Cohen et al., 2011).

Case Study 1

Lunchtime provision was the focus of one of the research visits to a “mainstream” primary school in which a small “clubhouse” had been set up for children, including autistic children, who did not want to use the playground during breaks. This was a resource which had been developed prior to the school becoming involved in the project, as a result of staff expressing concerns about apparent difficulties at breaktimes, and which was reviewed in the context of the project. The teacher observed that this initiative worked better with a clear structure, including a visual timetable to show children which member of staff would be there, and what the focus activity would be. Children also had an element of free choice but the teacher noticed that choosing was not always easy for some of them and could be quite anxiety provoking. Originally the “clubhouse” idea had been attempted in a much larger space and had not worked well so the organiser moved the facility to a smaller room which worked better. Size may not have been the only factor but the decision to decamp elsewhere based on observing responses is illustrative of the way in which the organiser stepped back, observed and implemented environmental
change based on pupil reaction. The teacher acknowledged that at first it had been difficult to get children to start coming, but that those who attended soon appeared to look forward to lunchtime in “The Clubhouse”. During a school visit, the researcher observed a pupil talking about seeing a friend at “The Club”. Concerns about segregated social provision and “labelling” were openly debated in research meetings, during which the organiser explained that the Club was not just open to autistic children, and also that children attending could also bring a friend. A common theme seems to be emerging from the various vignettes from different settings, i.e. that good autism practice is good practice which has potential benefits beyond the autistic community. Some children prefer not to play outside in the playground and this school appears to be offering an effective alternative which does not stigmatise by requiring the child to have a label in order to gain entry. The research provided an opportunity for other schools to think about ways in which they could sensitively approach the idea of providing different sorts of play spaces to cater for all pupils, some of whom need something a bit quieter and more contained.

Case Study 2

One teacher gave an example of how advice from the interim conference has made a significant impact on a pupil’s learning in the small (around eight pupils) autism base in which they work, which is attached to a “mainstream” primary school. The child has a particular interest in clocks, but initially it was felt by some staff that it would be disruptive to his learning if he had constant access to his clock. Following the conference, however, where this concern was discussed, the pupil now has access to his clock at all times, and this appears to have improved his learning experience: he is more relaxed, appears able to focus more, communicates and interacts more with staff and peers, and his parents have also commented on the positive difference at home. The pupil uses a “now and then” visual aid, alongside a visual timetable and visual instruction cards, to help him with the structure of the school day. Going with rather than against the interests of an autistic person can generally be seen as good autism practice (Martin and Milton, 2017).

Case Study 3

“Before and after” photos of classrooms were shared by one teacher in a “mainstream” primary school who had implemented the Clever Classrooms (Barrett et al., 2015) approach in a structured way. The Clever Classrooms approach looks at how the physical design of the classroom can impact on and improve the learning experience. As the school SENCo, the teacher had already been researching ways in which the learning environment can impact on students’ learning, and following the completion of the sensory audit, decided to focus on the classroom and how better the school could support pupils with ASD through improved environmental changes and better consideration of how a child with sensory processing difficulties may view a mainstream classroom. Aspects of Clever Classrooms found to be effective included painting the walls in calm colours, and keeping displays simple and not too “busy” while ensuring that some wall space was left blank to reduce visual clutter. The results were positive for all pupils, indicating again that very often good autism practice is good practice for all pupils. Pupils have commented on how calming the classrooms are, and how it is now easier to find things with trays, etc., being labelled. Displays have been taken down from windows, letting in more natural light, thus reducing the need for bright artificial lighting. Visual timetables, also introduced as a direct result of the project, were deemed to have had a similar systemic effect. The senior leadership team and the caretaker in the setting in which these initiatives were introduced were fully supportive, especially about the practicalities of finding ways to display visual material to best effect. Teachers were also positive about their workload being reduced as a result of consistency and clarity in displays. Pupils appear to be less distracted by visual and sensory stimuli by having one consistent colour used in the classroom for displays. The school is now considering how to use the consistency of this approach as a tool to help pupils transitioning into new year groups across the school. Within the resource pack, an article on UDL (Martin and Milton, 2017) illustrates the point that improving the environment for autistic children has wider benefits, and this has been reflected in positive feedback from all pupils, as well as from external parties such as the school’s educational psychologist.
Case Study 4

A special school within the alliance highlighted the issue of sensitivities around food and mealtimes, with many pupils having a restricted diet. They implemented their own pilot project, using the Sequential Oral Sensory (SOS) approach (Toomey, 2007). The SOS approach assesses the child as a whole taking into account their motor skills, oral skills, learning, behaviour and cognitive level of the child, in conjunction with the environment and nutrition. Their occupational therapist had already been trained in the approach, and other staff members also received training to work with a group of four pupils who had been identified as having particular sensory needs in this area, to assess whether the SOS approach might be effective. The programme introduced a structured approach to desensitising pupils to different types of food through play and exploration, and included a training session with their families so that the principles of the strategy could be integrated into the home environment alongside the work in school. At the time of writing, developments in the group included being able to interact with a wider variety of foods, being able to tolerate being near to food and some progress in tasting a wider range of foods. The school plans to integrate the principles of the programme into the dining room for whole school support; run training for all parents of pupils in the Early Years Foundation Stage on the principles of the SOS approach; and run an SOS approach group in each Key Stage.

Case Study 5

One special school reflected on the introduction of “brain breaks” to see whether they could positively affect pupils’ focus and concentration in lessons, which had been identified by staff as an issue which often affected both individual pupils and consequently the whole class. The new school occupational therapist conducted training on brain/sensory/movement breaks, with the aim of enabling children to refocus and de-stress. The researcher observed the effective use of these “brain breaks”, which the teacher had adapted slightly from the OT’s initial suggestion of every 20 min, and which were being used at the natural end of a session, with the choice of activity being given to a pupil. The teacher has reported improvement in the teacher–pupil relationship, where they can take part in “fun” exercise together, and observed that children appeared more motivated and eager to take part in classroom sessions, knowing that there would be a movement break at the end.

Further discussion points

A common theme which emerged from the ideas shared between project participants was that various solutions which staff hit upon to help autistic pupils with sensory sensitivities had the potential to be useful to everyone else too. School staff commented on becoming more aware of the potential impact of sensory processing differences upon social interactions for autistic pupils (Caldwell, 2014). This realisation challenges the idea of challenging behaviour, a term which became increasingly unpopular with school staff as the project progressed. Just as the parents benefited from opportunities to interact with other parents, the schools also learnt from each other throughout the project, both at the conferences and through discussions at the regular project meetings. Training opportunities for staff from other schools were highlighted by the teaching school and plans were being made to take this forward when the project ended. Staff were also planning ongoing visits to each other’s schools with the aim of learning from each other and incorporating good practice from other settings into their own environment. Taking the ambiguity out of what might be on the menu at lunchtime, developing visual timetables to make life more predictable, facilitating quiet playtimes and avoiding over busy displays, for example, all seemed to calm things down generally. UDL (Meyer et al., 2014; Milton et al., 2016) operates on the principle that thoughtful design which considers everyone’s needs reduces the requirement for bespoke individual adjustments.

Various frameworks which have incorporated the philosophy of UDL resonated with the project team. Reliability, empathy, anticipation and logic (REAL) principles, for example, can help things to run smoothly for everyone (Hastwell et al., 2012). No one thrives in chaos and reliability fosters a sense of security. Empathising with pupils about how they might be experiencing aspects of the
school environment will help school staff to anticipate what is likely to work well and situations which should be avoided, such as unpredictable changes and sensory clutter. Logical communication increases understanding and feelings of safety and potentially reduces a sense of overload. Techniques, such as the use of visual timetables, enhance clarity for everyone.

SPELL is an approach advocated by The National Autistic Society and is similar to REAL. SPELL stands for Structure, Positive (approaches and expectations), Empathy, Low arousal, Links. Knowing the usual order of events in a day increases predictability and makes it easier to be more flexible within a framework. Teachers could employ a range of strategies to make things more predictable, such as a visual timetable which makes it clear to the pupils what is happening throughout the school day. Positive expectations based on understanding the pupil and their strengths and interests enhance motivation. SPELL advocates that links between learning experiences are made explicit rather than implied and understanding is checked. Calm and structure are enhanced to reduce anxiety and attention is paid to sensory overload. The SPELL approach has much in common with Clever Classrooms, REAL and Treatment and Education of Autistic and related Communication Handicapped Children (TEACCH) (Mesibov et al., 2005).

A TEACCH classroom would include visual approaches to routine as well as areas for quiet focus rather than having every wall covered in bright displays. Picture Exchange Communication System (Bondy and Frost, 2011) can be usefully incorporated into a TEACCH classroom. Visual timetables to make routines predictable, and other visual prompts, can help autistic pupils and, for example, some for who English is a second language. Approaches discussed here owe much to Maslow’s (1943) ideas about there being a hierarchy of needs and are based on the same assumption that learning is only possible if pupils feel a sense of safety and belonging.

Resource pack

The resource pack is a dynamic document which is available in electronic and paper-based forms. Having the opportunity to browse through a folder over coffee in the staffroom was felt to be important by the team because of the potential for any member of staff to happen upon something interesting without trying too hard. Copyright rules were adhered to and full references of the content appear at the end of this paper. It may be that a named member of school staff in each setting takes responsibility for keeping the folder up to date and LSBU CADS has made a commitment to continue to send useful information through to the schools.

Summary and next steps

Interestingly the understanding of sensory issues which emerged from this project encompassed all of the senses. Staff also focussed on how sensory perceptions might impact upon communication and interactions. Terms like “challenging behaviour” were robustly discussed by participants who were keenly aware that sometimes sensory overload factors had a real impact on the way the pupil was interacting with their environment. Ideas about support strategies which may help autistic pupils with sensory concerns ultimately focussed almost exclusively on environmental change which was something that the researchers found very refreshing. The solutions which school staff came up with all had the virtues of being practical and beneficial not only to children on the spectrum but also to others who might find the school environment challenging. Principles underpinning UDL were appreciated by school staff who readily embraced the idea of, wherever possible, avoiding “special” in favour of embedded universal solutions which could benefit all pupils. Autistic expertise and pupil and parent voice were valued within the project and the idea of sustainability was built in from the outset.

The project team intend to consider ways in which the findings can be embedded into future development plans for mainstream and special schools within the alliance. Aiming to continue to work collaboratively in the sharing of good practice, further research funding is being sought around school-led evidence-based school improvement planning, focussing on embedding principles of inclusive practice within school development plans. School staff have decided to host at least two workshops each year to enable parents to continue to meet each other and develop their support networks.
A key message to come out of the research is that every teacher is a teacher of pupils with special educational needs, including autism. Therefore, opportunities to develop the sort of understandings which emerge from a school-based research project such as this one are relevant to every teacher.

References


Further reading


Corresponding author

Nicola Martin can be contacted at: martinn4@lsbu.ac.uk

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: permissions@emeraldinsight.com