

Practitioners' perspectives and experiences of supporting bilingual pupils on the autism spectrum in two linguistically different educational settings

Katie B. Howard* , Napoleon Katsos and Jenny L. Gibson 
University of Cambridge, UK

With greater linguistic diversity in educational settings around the world as a result of international migration, and a rise in autism diagnoses, educators are more frequently teaching children who are both neurodiverse and linguistically different to their peers. The aim of the present study was to uncover the perspectives and experiences of educational practitioners who provide support for bilingual learners on the autism spectrum in two linguistically different educational settings: England and Wales. Semi-structured interviews were conducted with 13 practitioners (5 teachers, 4 teaching assistants, 3 special educational needs coordinators and 1 speech and language therapist) working in mainstream schools. Data were analysed using interpretative phenomenological analysis (IPA), which seeks to illuminate participants' lived experience. Three superordinate themes were extracted from the data: (1) perspectives on bilingualism in autism; (2) comparisons across two linguistically different settings; (3) creating inclusive learning environments. The results demonstrate that practitioners had concerns about the feasibility of bilingualism for some autistic pupils, and argued that exposure to two languages may have a negative impact on their development. Future research should focus on finding effective ways to identify and support learning needs among bilingual pupils to ensure that children who are 'doubly different' from their peers not only have access to educational provision, but also have opportunities to harness and celebrate their differences.

Keywords: autism; bilingualism; learners through the lifecourse; practitioner experience

Introduction

Increased migration has resulted in increased bilingualism in classrooms around the world. However, bilingual learners with special educational needs (SEN) may be overlooked or under-supported. Reviewing special educational needs policies in the Netherlands, the USA, the UK and Canada, Pesco *et al.* (2016) concluded that bilingual children with a developmental condition had far fewer opportunities to maintain their home language than their typically developing peers. One such condition that has been the focus of increased attention is autism spectrum condition (ASC). Characterised by challenges in social interaction and restricted, repetitive patterns of

*Corresponding author. University of Cambridge, Cambridge CB3 9DA, UK.

Email: kbh30@cam.ac.uk

behaviour (American Psychiatric Association, 2013), autism is being increasingly identified and diagnosed around the world (Elsabbagh *et al.*, 2012). This global rise in autism diagnoses runs parallel to an unrelated increase in multilingualism, which has inevitably led to greater numbers of bilingual learners on the autism spectrum. The consequences of this increasingly common experience have been well documented in the family setting (Hampton *et al.*, 2017) and recommendations for clinicians are beginning to emerge (Uljarević *et al.*, 2016; Lim *et al.*, 2018). However, there is little evidence about the views of the educators who work alongside this growing population. The aim of this article is therefore to elucidate the perspectives and experiences of educational practitioners who provide support for bilingual pupils on the autism spectrum.

The UK provides an interesting case study for the increasingly common interaction between autism and bilingualism in the school environment, particularly given differences between its various jurisdictions. In England, the number of children who speak English as an additional language (EAL) has been rising steadily (Leung, 2010), and EAL pupils now represent around one in five pupils in primary schools (DfE, 2018). Despite this rise, a 'monolingual mindset' (Ellis, 2004) can often be the norm in educational settings. In Wales, around a quarter of children receive a bilingual education through attending Welsh-medium schools (Welsh Government, 2018). Many parents in Wales hold the value of bilingualism and a Welsh-medium education in high regard (Hodges, 2011). While in Wales parents can select for their child to receive a bilingual education, in England the language of instruction is almost universally English, despite an increasingly multilingual and multicultural school population due to increased global migration. It may therefore be helpful to consider the two linguistically different settings within Bialystok's (2018) distinction between 'bilingual education' (as in Wales) and 'the education of bilingual children' (as in England), while, of course, recognising that there are children in Wales who are bilingual in languages other than English and Welsh. One fundamental difference between the two contexts is that Welsh-English bilingualism is encouraged both by parents and educational practitioners in Welsh-medium schools in Wales, whereas in England, children's home languages are frequently deprived of status (Robertson *et al.*, 2014). A tension thus emerges between parents' wishes for their child to maintain the home language in England and schools' attempts to focus exclusively on developing the child's English proficiency. In the current study, the perspectives of educators in both England and Wales will be considered and compared, in order to shed light on how different language communities, within linguistically different educational settings, perceive bilingualism in autism.

Experiences of supporting students on the autism spectrum

Around 70% of autistic children are educated in mainstream schools in the UK, a figure that has grown significantly in the last two decades (DfE, 2019). This may be the result of greater awareness of the condition and growing understanding of inclusion practices. In this article, the terms 'autistic' and 'on the autism spectrum' will be employed, as these are considered the preferred terms among the autistic community (Kenny *et al.*, 2016). Understanding the concerns and experiences of school staff is

critical in addressing issues of inclusion, social development and academic achievement of children who are linguistically, culturally or developmentally diverse. Practitioners report certain challenges in supporting autistic children in educational contexts, including facilitating their social interaction (Lindsay *et al.*, 2013). This is particularly true given that autistic children have less social support from peers (Symes & Humphrey, 2010), and are more susceptible to bullying (McNerney *et al.*, 2015).

Inclusive classrooms are those that ensure all pupils' presence, participation, acceptance and achievement (Humphrey, 2008), and teachers strongly advocate inclusive environments and pedagogies for autistic pupils (Lindsay *et al.*, 2013). However, there is a need to balance a whole-school ethos of inclusion with the inclusive practices of individual teachers in individual classrooms (Iadarola *et al.*, 2015). Fostering a sense of inclusion is also achieved through strong family–school partnerships. Although parents of autistic children are more likely to be engaged in collaboration with teachers, they report feeling less satisfied with the quality and quantity of school communication than parents of non-autistic children (Zablotsky *et al.*, 2012). Practitioners are cognisant of the pressing need for greater awareness of autism among staff, students and parents, with some citing a lack of awareness as the greatest barrier to inclusion for this group (Iadarola *et al.*, 2015). However, it is important to note that as a 'spectrum' condition (Wing, 1988), children have very different autistic presentations, and so require individually tailored educational support.

Experiences of supporting students with English as an additional language

Less is known about the perspectives of practitioners who teach and support children with English as an additional language, and EAL provision across the decades has been 'consistently inconsistent' (Costley, 2013, p. 289). Just like the contentious issue of inclusion for autistic pupils, the value of integrating EAL pupils into mainstream classrooms is widely debated and students are generally expected to acquire English and engage with curriculum subjects simultaneously (Leung, 2010). Franson (1999, p. 70) argues that while it may secure an 'equality of presence', this 'mainstreaming' approach by no means guarantees an 'equality of participation'. Research underscores the importance of recognising the hugely diverse profiles of EAL pupils and avoiding homogenising their experiences, languages, backgrounds and academic capabilities (Anderson *et al.*, 2016).

In the UK, many children with EAL undergo a process in which they are assimilated to the majority language (i.e. English) and the majority culture as soon as possible, often to the detriment of their home language(s). Although the achievement of EAL pupils relies on their success at learning English (Strand *et al.*, 2015), 'linguistic mainstreaming' may endanger the maintenance of EAL pupils' first language (Molyneux *et al.*, 2015). Despite these concerns, practitioners consistently cite a lack of English proficiency as the biggest barrier to EAL pupils' learning (Strand *et al.*, 2015; Evans *et al.*, 2016).

Recommendations to improve schools' support for EAL pupils include developing a school-wide language policy, gathering more detailed information about students' cultural, linguistic and academic backgrounds on admission, and improving

communication with parents (Anderson *et al.*, 2016; Evans *et al.*, 2016). Partnerships between schools and parents of EAL pupils are often limited, and parents are significantly under-represented in school structures (Evans *et al.*, 2016). Further training is also required to increase practitioners' understanding of pedagogy and policy in relation to EAL pupils, and to raise awareness in schools about the multiple benefits of bilingualism (Murphy & Evangelou, 2016). Indeed, opportunities to celebrate students' linguistic diversity and to make effective use of students' home languages in the classroom are encouraged (Anderson *et al.*, 2016).

Experiences of teaching in Welsh-medium schools

Under the auspices of the Welsh Language Strategy, the Welsh Government is aiming to reach one million Welsh speakers in Wales by 2050 (Welsh Government, 2017). Around a quarter of children in Wales currently attend a Welsh-medium school (Welsh Government, 2018), which is selected by parents for cultural, educational and employment reasons (Hodges, 2011). However, Welsh-medium provision for children with additional learning needs is currently insufficient (Roberts, 2017, p. 15). Given that many pupils who attend Welsh-medium schools use English as their first language at home, the school setting provides children with their primary exposure to Welsh. A major challenge for Welsh-medium teachers is therefore encouraging children to use Welsh with their peers in the school environment (Thomas *et al.*, 2012).

Autism and bilingualism

Research that explores the interplay between autism and bilingualism in the mainstream classroom is very limited, although researchers have investigated bilingualism and special educational needs more broadly. Research suggests that bilingual children are both over- and under-diagnosed with neurodevelopmental conditions (Yamasaki & Luk, 2018). As a result, children who are erroneously identified as having a special educational need may not receive a level of academic challenge commensurate with their academic potential, while children who are undiagnosed may miss out on crucial speech and language therapy and intervention (Strand *et al.*, 2006). The blurring of the lines between SEN and EAL policy and a lack of specialised training has resulted in insufficient support for learners who are both linguistically different and neurodiverse. Parallels can be drawn between the debates around the inclusion of children with special educational needs in the mainstream classroom and that of EAL pupils. In the USA, for example, Thompson (2013) argues that legislation and policy ensuring disabled children's access to the 'least restrictive environment' (LRE) could usefully be applied to children who speak minority languages in order to better support their educational needs.

The small body of research that considers autism and bilingualism suggests that multilingual families are routinely advised to speak one language—rather than the two or more available to them—if their child is diagnosed with autism (Yu, 2013; Hampton *et al.*, 2017). However, this advice may be based 'more on logical arguments than empirical evidence' (Lim *et al.*, 2018, p. 2890). Indeed, Drysdale *et al.*'s (2015) systematic review evaluated the findings of eight studies that investigated the

language development of a total of 182 children on the autism spectrum. The authors tentatively concluded that there are no detrimental effects of bilingualism for autistic children's language development, which has since been further corroborated by more recent empirical studies and systematic reviews (Lund *et al.*, 2017; Dai *et al.*, 2018; Zhou *et al.*, 2019). Although language development is often delayed in autistic children (Gernsbacher *et al.*, 2016), studies indicate that bilingual autistic children perform similarly to their monolingual counterparts on expressive and receptive vocabulary and language abilities (Dai *et al.*, 2018). In fact, studies are suggesting that bilingualism may engender benefits for autistic children's socio-communicative abilities (Lim *et al.*, 2018), relationships with wider family members (Howard *et al.*, 2019) and sense of cultural identity (Jegatheesan, 2011).

Pesco *et al.* (2016) raise concerns that children on the autism spectrum do not have the same exposure to the home language as their typically developing peers and therefore do not have the same opportunities to develop as bilinguals. The authors recommend greater collaboration between teachers and speech and language therapists to ensure that appropriate support is available for this population and their families. Similarly, drawing on survey data from school- and clinic-based practitioners about the availability of bilingual language services for children with developmental disabilities, Marinova-Todd *et al.* (2016) identified a marked disconnect between practitioners' beliefs about bilingualism for this population and the reality of services available to them.

Research questions

There is a pressing need for research that addresses the experiences of supporting children on the autism spectrum from a wide range of cultural, linguistic and economic backgrounds. Bird *et al.* (2016, p. 75) call for further investigation into autism and bilingualism that considers 'the family, the local community, the educational context, and the larger society and relevant policies'. More specifically, Marinova-Todd *et al.* (2016) highlight the need to better understand practitioner perspectives on the intersectionality between autism and developmental conditions. As such, this study was guided by the following research questions:

1. What are educational practitioners' perspectives about the impact of bilingualism on autistic pupils?
2. How do attitudes differ between practitioners who provide support for children in a predominantly monolingual education system (England) and those who work in an educational system that promotes bilingualism (Wales)?
3. What are practitioners' classroom experiences of providing support to bilingual pupils on the autism spectrum?

Methodological approach

Participants

Participants were recruited through direct contact with mainstream schools in England and Wales, and through contact with families involved in a wider

research project exploring bilingualism in autism (Howard *et al.*, 2019; Howard *et al.*, 2020). This resulted in a range of schools: 2 bilingual schools in Wales, 1 English-medium school in Wales, 4 schools in England with a higher-than-average number of EAL pupils, and 3 schools in England with a lower-than-average number of EAL pupils. Families and schools then selected the person or people that they believed were most suitable to participate. Participants were included in the current study if they: (a) teach or support a bilingual pupil on the autism spectrum in a mainstream school; (b) have worked in the school for at least 2 years. Criterion (a) was chosen so that participants could draw on relevant and recent experiences of providing support to a bilingual child on the autism spectrum, and mainstream schools were selected as this reflects the educational setting of the majority of pupils on the autism spectrum (DfE, 2019). Criterion (b) was included so that practitioners would have a more in-depth experience, and because it would be unreasonable to ask newly qualified or newly established staff to participate.

Participants ($n = 13$) included teachers ($n = 5$), teaching assistants ($n = 4$), special educational needs coordinators (SENCOs) ($n = 3$), and 1 speech and language therapist. By drawing on a variety of expertise and roles within schools rather than only the class teacher, it was hoped that a clearer picture of the different support available to children would emerge. While most of the practitioners from Wales were bilingual in Welsh and English, practitioners who mentioned their own language use in England described themselves as monolingual. The languages spoken by the children being supported varied widely, and included: Lithuanian, Urdu, Punjabi, Welsh, Polish, Italian, Hindi, Gujarati and Spanish. Although some of the children spoke more than two languages, the term *bilingual* is used in this study to describe their linguistic repertoires, whereas the term *multilingual* is employed when describing multiple language use within collective or societal contexts (e.g. multilingual families, environments, etc.). Demographic information about participants and their schools can be found in Table 1, and names have been changed to protect participants' anonymity.

Procedures

Participants were provided with an information sheet about the study and were given the opportunity to ask questions and/or withdraw from participation prior to the interview. All participants gave informed written consent. Interviews focused on participants' experiences with students recruited in another study looking at the school experiences of bilingual children on the autism spectrum (Howard *et al.*, 2019). Discussions were therefore related to teachers' specific experience with a bilingual learner on the autism spectrum, however their wider professional experiences of bilingualism and autism were also considered. Four participants from the same school were interviewed together (see Table 1) and were questioned about their experiences with two autistic pupils who were Welsh–English bilinguals. Interviews lasted 25 min on average, and all interviews took place in the school setting. Interviews were audio-recorded and transcribed verbatim prior to analysis.

Table 1. Participant demographics

Participant	Country	Role	Gender	Secondary/ primary	Linguistic profile of school	Practitioners' linguistic profile
Debbie	England	SENCo	F	Secondary	High % of EAL	Monolingual
Cath	England	Teaching assistant	F	Primary	High % of EAL	Monolingual
Natalia	England	Teaching assistant	F	Primary	Low % of EAL	Monolingual
Paula	England	Teacher	F	Primary	High % of EAL	Monolingual
Robert	England	Teacher	M	Primary	Low % of EAL	Monolingual
Emma	England	Teacher	F	Primary	High % of EAL	Monolingual
Dawn	England	SENCo	F	Primary	Low % of EAL	Monolingual
Bethan	Wales	Teacher	F	Primary	Bilingual	Bilingual
Anwen	Wales	SENCo	F	Primary	Bilingual	Bilingual
Suzanne*	Wales	Teacher	F	Primary	English-medium	Bilingual
Gill*	Wales	Speech and language therapist	F	Primary	English-medium	Monolingual
Lucy*	Wales	Teaching assistant	F	Primary	English-medium	Bilingual
Rachel*	Wales	Teaching assistant	F	Primary	English-medium	Bilingual

*Took part in the same interview.

Data analysis

Interpretative phenomenological analysis (IPA) (Smith *et al.*, 2009) was employed as the overarching methodological framework for this study, particularly during the data analysis stage. IPA is concerned with describing and interpreting participants' lived experience. Following the recommendations of Smith *et al.* (2009), the first interview transcript was read and re-read line by line in search of descriptive, linguistic and conceptual significance. Descriptive summaries were annotated in the left margin, whilst initial interpretations and emergent themes were noted in the right margin. The process was repeated with the remaining transcripts, and overlapping and insignificant themes were removed. In view of Giorgi's (2010) criticism that IPA analysts do not need to account for all the data leading to possible selectivity bias, once an initial list of 219 emergent themes had been established, verbatim quotations were grouped with their corresponding theme in order to provide consistent evidence of a theme's selection. The 219 emergent themes were then refined and duplicates removed, bringing the total to 54 subthemes that were pertinent to the research questions posed. Next, a subsequent process of reduction took place in which the remaining 54 subthemes were reduced to 3 superordinate and 8 subthemes (see Table 2) through abstraction, subsumption and numeration techniques (Smith *et al.*, 2009). Following the creation of a final list of superordinate and subordinate themes by the research team, an independent researcher reviewed the transcripts and analytical process to increase the trustworthiness of the findings. A process of member checking then took

place whereby practitioners were provided with a summary of the study's key findings and had the opportunity to provide any further information or amendments.

Results

The superordinate and subordinate themes are found in Table 3 and are presented below with excerpts from participants' own words to illustrate the relevance of each theme.

Perspectives on bilingualism in autism

Bilingualism for typically developing children vs. bilingualism for autistic children. Practitioners' perspectives of the value of bilingualism for pupils on the autism spectrum varied widely, and no consensus was reached about whether bilingualism helped or hindered students' development. Educators highlighted some key advantages of bilingualism, although most of these applied to typically developing children, rather than being specific to autistic pupils. These include cognitive, cultural, vocational and communicative benefits. First, Emma mentioned the advantages of bilingualism for children in her class who do not have speech, language and learning difficulties:

I can see the benefits already when I'm teaching them in French and Spanish. Some of them have learnt at home how our grammar works so they have a good understanding of it. And having English as an additional language has cognitive benefits.

Second, when discussing the benefits of bilingualism for all bilingual learners, Natalia reports intercultural understanding as a major advantage:

They have a broader view of the world. They know that there's not just one culture that you have to follow, but there are other ways of seeing the world.

Third, two teachers in Wales also mentioned the vocational benefit of being bilingual. Bethan argued, '*I think it's very important in Wales because obviously everything is bilingual and it does help on your CV*', while Anwen believed that, '*even if he [Charlie] doesn't choose to use it in his working career, he's always got it there*'.

Fourth, Cath gave a specific example of how bilingualism was an asset for Gini because it facilitated her communication with family members: '*she has relatives who do not speak English and she has recently been to Pakistan on holiday so obviously her own language is what they'd speak at home*'. It is important to note, however, that this communicative benefit is applicable to all bilingual children in similar situations, rather than specific to autistic children. These examples showcase that while many practitioners cited benefits to bilingualism, no practitioner highlighted a benefit of bilingualism that was specifically applicable to children on the autism spectrum.

Concerns about feasibility. Rather than highlighting advantages of bilingualism in autism, practitioners noted that it is not always feasible for autistic children from multilingual backgrounds to maintain their home language. According to the practitioners interviewed in this study, the capacity for bilingualism in autism is dependent on the language profile of the individual child, given the wide heterogeneity of language

Table 2. Reduction of themes

Superordinate theme (<i>n</i> = 3)	Subtheme (<i>n</i> = 8)	Previous subtheme (<i>n</i> = 54)	No. participants discussing subtheme
Perspectives on bilingualism in autism	1A. Bilingualism for typically developing children vs. bilingualism for autistic children	a Advantages of bilingualism (general) b Advantages of bilingualism (specific to autism) c Disadvantages of bilingualism for autistic pupils	9
	1B. Concerns about feasibility	a Bilingualism makes life more challenging at the moment b Capacity for bilingualism depends on the child c Heterogeneity of language skills in autism d Concerns about speech, language and communica- tion e Children communicating basic needs is more impor- tant than bilingualism f Is slow processing the result of autism or bilingual- ism? g How natural is bilingualism to the child? h Time needed for bilingual development	10
	1C. Consequences for the classroom	a Challenge of identifying SEN among newly arrived children b Home language maintenance and loss c Bilingualism is a barrier to English literacy develop- ment d Child's language input at home e Difficulty understanding instructions is a combina- tion of autism and bilingualism	10
			13

Table 2. (Continued)

Superordinate theme (<i>n</i> = 3)	Subtheme (<i>n</i> = 8)	Previous subtheme (<i>n</i> = 54)	No. participants discussing subtheme
Comparisons across two linguistically different settings	2A. Differences between England and Wales	a Reflections on own linguistic identity b Language in Wales c English-medium vs. Welsh-medium d Compartmentalising language e Home language in school	11
	2B. Commonalities between England and Wales	a Supporting home language b Assessment c Recognition of EAL pupils' linguistic repertoires d Children value English (perhaps above home/other languages)	
Creating inclusive learning environments	3A. Identifying barriers to learning	a Literacy is the main area for development b Negative social experiences c Behaviour d Physical behaviour or violence e Difficulties with motivation to work f Transition periods are difficult g Full-time TA is necessary h Insufficiency of labels i Public perceptions of autism	13
	3B. Strategies in the classroom	a Person-centred approaches b Pedagogical strategies c Child would benefit from extra time (to process infor- mation) d Curriculum preferences	

Table 2. (Continued)

Superordinate theme (<i>n</i> = 3)	Subtheme (<i>n</i> = 8)	Previous subtheme (<i>n</i> = 54)	No. participants discussing subtheme
		<ul style="list-style-type: none"> e Creativity f Learning environment g Supporting social interaction h Reinforcement of instructions is needed i Visual prompts j Structure and routine important k Importance of cultivating independence 	
	3C. Whole-school approaches	<ul style="list-style-type: none"> a Mainstreaming b Need for autism awareness c Importance of celebrating strengths and successes d Strengths e Curious learner f Home–school communication g Emotion and well-being h Professional experiences i Professional development 	12

Table 3. Superordinate and subordinate themes

Superordinate themes ($n = 3$)	Subordinate themes ($n = 8$)
1. Perspectives on bilingualism in autism	1A. Bilingualism for typically developing children vs. bilingualism for autistic children 1B. Concerns about feasibility 1C. Consequences for the classroom
2. Comparisons across two linguistically different settings	2A. Differences between England and Wales 2B. Commonalities between England and Wales
3. Creating inclusive learning environments	3A. Identifying barriers to learning 3B. Strategies in the classroom 3C. Whole-school approaches

development in autism (Gernsbacher *et al.*, 2016). This implies that different advice may be appropriate for different autistic children and their families when it comes to bilingualism. Practitioners noted that they had taught autistic children for whom bilingualism was possible but suggested that it may be unrealistic for the child being discussed. Bethan commented, for instance, that *'there are autistic children that I've taught who have picked up the language straight away'*, but suggested bilingualism was not appropriate for Aled, describing Welsh as a *'constant barrier'* to his progress. As his use of English was affecting his academic performance, Bethan believed that Aled should move from a Welsh-medium school to an English-medium one, which he was set to do the following academic year. She posed a series of questions to consider when weighing up the value of a bilingual education for autistic children: *'Can they take the language on board? Does it come naturally to them? If it doesn't come naturally, is it going to be holding them back?'* These questions provide an effective starting point for considering the feasibility of bilingualism for an autistic child.

Working as a teacher in an autism unit within a mainstream school, Suzanne also commented that the severity of a child's symptoms plays a role in the feasibility of bilingualism in autism:

The pupils who have more high functioning autism, they can choose themselves if they want to speak the English or the Welsh, whereas here, they go with the flow. Whatever is spoken to them, they repeat it back.

Suzanne's assertion suggests that the environment (i.e. a mainstream classroom or a specialist unit) may, to a certain extent, determine the child's exposure to bilingualism in bilingual educational settings. She justifies the more monolingual approach adopted in the autism unit by suggesting that *'primarily the language spoken is English because for pupils it's too confusing to do different ones'*. The notion of bilingualism being confusing for autistic pupils is also echoed by Natalia in England, who states: *'if they have rules in a certain language, and then at school they have rules in a different language that might confuse them'*. Along with others, she therefore reasons that *'bilingualism could be a disadvantage for them'*. Similarly, Dawn raises concerns that *'having English as an additional language impacts on Nathan's processing, therefore it would be a negative for him'*. Like Natalia, she too concludes that *'bilingualism is not helpful to him, it's more difficult for him'*.

Contrary to concerns that bilingualism is too confusing, there was a sense in some practitioners' accounts that bilingual development may take longer for autistic children but is nonetheless possible. For example, Anwen notes how Charlie was initially finding two languages difficult but, in time, has found bilingualism more natural: '*last year I would have said he was struggling with the two languages but this year now it's just clicked*'. Emma also intimates that although the benefits of bilingualism may not be evident at this stage of Rohan's development, in time they will emerge: '*at the moment it makes it more challenging, but from my understanding, I think when he's older it's beneficial*'. These examples indicate that advising monolingualism early on may not give the child the time or the opportunity to develop as a bilingual.

Consequences for the classroom. In keeping with their concerns about the feasibility of bilingualism in autism, some practitioners believed that bilingualism had negative consequences for autistic children in the school environment. Educators in England reported that identifying special educational needs was more difficult in children who speak English as an additional language. This issue was particularly pertinent in schools with a higher percentage of EAL pupils, as Debbie noted: '*the difficulty for us is how do you determine if the student has a learning difficulty in their home language, especially when you've got students who are new to England*'. Equally, Dawn acknowledged that EAL pupils '*end up getting diagnosed later or we end up identifying it later because we put things down to it being an EAL need*'. Although addressing these delays in identifying additional needs in bilingual children is important, Cath suggested that it can take time to decipher whether children who are new to English have special educational needs, and diagnoses should not be rushed. Instead, she advised: '*you do have to leave it a while to see what's going to happen. It's much more challenging to diagnose and it's only after a matter of time that perhaps things will become a bit clearer*'.

Others expressed concerns that bilingualism may have a detrimental impact on autistic children's literacy development. Paula, for example, argued that a lack of English spoken at home was hindering Tomas's literacy: '*it would help if they [Tomas's parents] are speaking English at home, especially because of literacy in school. Supporting that. But most of them as soon as they get home it's back to speaking Polish*'. Her use of '*most of them*', however, suggests that Paula believes exposure to the home language in the family setting impacts all bilingual children, not just those on the autism spectrum. She continues by stating that the lack of consistency between the language spoken at home and at school is a key factor in Tomas's difficulties, arguing that bilingualism is '*probably a disadvantage for his autism*'.

Paula also argued that code-switching may be negatively affecting Tomas's school experience and academic progress: '*it must be so hard for him, to come in and switch into thinking about the English language. It must be so hard for him. So hard*'. Her repetition of 'hard' accentuates her belief that bilingualism may be too demanding for Tomas. A similar concern was expressed by other practitioners interviewed. Lucy, a bilingual teaching assistant in Wales, remarked that '*I couldn't get him to switch between the two languages*'. As her school's SENCo, Dawn tried to facilitate Nathan's Spanish by arranging sessions for him to practise his home language with a Spanish-speaking teaching assistant. However, she reflects that these attempts were not useful as '*he is not willing to engage in Spanish at all in school*'. Nevertheless, Dawn acknowledged that

the interventions were attempted because Nathan's mother '*didn't want him to lose the Spanish*'.

Comparisons across two linguistically different settings

Differences between England and Wales. There were notable differences between the perspectives and experiences of practitioners in England compared to those in Wales. Most of the staff in Wales were bilingual themselves, so could adapt their language use more readily and have more flexible expectations for language in the classroom. For example, Lucy's bilingualism impacted her support of the two children under discussion, as she states: '*when I knew they both knew Welsh I tried to include more Welsh when I work with them*'. As a Welsh speaker, Lucy reflected on her own linguistic identity, commenting: '*if I speak English to my parents . . . it feels like something is wrong*'. This notion of it feeling 'wrong' to use a non-native language with family members resonates with Bethan's earlier suggestion that language use could be determined by how 'natural' a language feels to the child. The linguistic identity of staff may play some role in their reflections on the challenges and opportunities of bilingualism in autism. As most practitioners in Wales were bilingual themselves, they may have identified more—linguistically speaking—with their students than the English practitioners, who tended to describe themselves as monolinguals: '*I don't speak any other languages*' (Cath); '*I'm not a bilingual learner, I am a person who just dipped in and dipped out*' (Debbie); and '*I'd love to speak two languages*' (Emma). This finding gives further credence to Yu and Hsia's (2018) call for greater linguistic and cultural diversity among staff who provide support to bilingual children with special educational needs.

In England, there was both less confidence about supporting bilingual pupils and less promotion of bilingualism than in Wales. Discussing the support of EAL pupils, Emma stated '*as a new teacher it's something I'm a bit unsure about*', which suggests that increasing knowledge and understanding of EAL could be more effectively embedded into initial teacher education. In a similar vein, Natalia had not received any training on supporting EAL pupils and Dawn notes that a recent rise in EAL pupils in her school '*has been a real learning curve for everyone*'. The fact that practitioners did not view pupils' bilingualism as a central facet of their profiles may reinforce monolingual practices in England. For example, in schools in England with fewer EAL pupils, a number of teachers asserted that the language expectations for the classroom tended to be 'English only'. Dawn remarked that '*we certainly can't support his Spanish language needs at school because we're in England, and speak English*'. Other teachers expressed similar sentiments: '*we don't offer an option of speaking in Polish*' (Paula) and '*I wouldn't be expected to learn Italian to try to communicate with him*' (Robert).

Commonalities between England and Wales. As in the accounts of bilingual autistic children in Howard et al. (2019), the linguistic profile of the school in which practitioners worked seemed to be indicative of their perceptions of bilingualism; those working in schools with a higher proportion of bilingual pupils (both in Welsh-medium schools and schools in England with a higher percentage of EAL pupils) tended to hold more positive views about the merits of bilingualism. In Cath's school, for instance, every student spoke a different language at home. She described ways in

which the school supported children's home language maintenance, such as sending dual-language books home so that parents who are less confident in English could engage in their child's literacy development in both languages. Similarly, Emma and Debbie worked in more multilingual schools and indicated the possible advantages of drawing on children's bilingual repertoires. Instead of viewing bilingualism as a barrier, Debbie highlighted the importance of '*complementing the skills they have from being an EAL learner*'. In Wales, Anwen also highlighted that Charlie's access to two languages, rather than one, enriched his natural inquisitiveness and will have significant benefits for his educational outcomes.

Whether in a bilingual or a monolingual education system, educators highlighted that the children themselves were more comfortable in English than in their home language, or Welsh for those with English as a first language. In England, even practitioners who were concerned about the effects of bilingualism for children on the autism spectrum highlighted that the child tended to use English: '*I've never heard him speak Polish at all*' (Paula) and '*he is very used to English here*' (Natalia). In Wales, a similar finding emerged whereby practitioners noted that children often reverted to English when communicating with peers, despite being in a Welsh-medium environment. Gill summarises this trend: '*it causes a lot of conflict within the mainstream because they're obviously in a Welsh-medium environment, but they seem to always pick English*'. Another challenge faced by educators in both Wales and England was how to assess bilingual autistic pupils. Suzanne commented that '*assessing Andrew's language in either English or Welsh has been very difficult*'. She continued by underscoring the possible differences between language use at home and at school, inferring that children's linguistic performance in school may not be a true reflection of their ability: '*as every parent says, whether their child speaks English, Welsh, both, nothing, the child will perform differently at school to when they're at home*'. Difficulty assessing students was also raised by practitioners in England. Debbie, for instance, stated that '*the reading material that you ask a child to read for an assessment is culturally biased*'.

Creating inclusive learning environments

Identifying barriers to learning. Educators reported that their bilingual autistic pupils faced several barriers to learning, and, with only two exceptions, described their school experiences as difficult. First, most educators described literacy-based tasks as either the least preferred or the least accessible part of the curriculum for their bilingual autistic pupils. Given that literacy skills are needed in most subject areas, this presented a major stumbling block to their academic progress. Emma described difficulties in comprehension as inimical to Rohan's progress: '*he's not able to pick out the key points of things that people say, so he is missing out at the moment on a lot of learning*'. Disentangling the distinct impact of autism and of bilingualism on a child's development was by no means straightforward, as Dawn highlighted in her reflections on Nathan's reading and listening comprehension: '*Nathan has very, very slow processing speeds so he needs a lot of time to process things and who knows whether that's purely autism or whether it's slightly language and the autism*'.

Second, many practitioners also described social interaction as a major challenge for pupils, which could be attributed to autistic symptoms, a language barrier, or

both. Most notably, educators described children's difficulty in making and maintaining friendships and reported children's preference for being alone during break times. For example, Emma remarked that Rohan '*plays with his peers for about a minute and then he'll run off and want to be by himself*', while Paula reported that Tomas '*finds it very hard to socialise with peers*'. Language barriers also hindered children's social interaction. Bethan commented that: '*Aled finds it hard socially because he is constantly speaking English and everyone else is speaking Welsh*'. Given the evidence in the literature that social interaction in school is already more difficult for autistic pupils (Symes & Humphrey, 2010), it seems that Aled's difficulty acquiring Welsh was further diminishing his opportunities to socialise with peers.

Third, practitioners mentioned a lack of awareness about autism both among school staff and the public as another potential challenge to their work. Debbie stated that, '*the whole perception of what it means to be autistic is quite a shame really*', while Robert cited a persistent '*lack of understanding about autism*' as inimical to autistic children's school experiences. A lack of awareness about EAL was also cited by practitioners as a barrier for the children they supported.

Strategies in the classroom. Despite the major barriers mentioned, practitioners also highlighted effective strategies for creating inclusive learning environments for bilingual autistic pupils, especially by adopting person-centred approaches. In her role as SENCo, Debbie stressed that '*the whole point of the SEN code of practice is that [it] takes a person-centred approach*'. To ensure that this is implemented in practice, Robert suggested that professional dialogue should be balanced by the voices of the children themselves. In terms of pedagogy, practitioners identified some key strategies for engaging their bilingual autistic learners. Time to process information was identified as crucial to pupils' academic progress. Rachel recommended short bursts of information, while Paula suggested that collaborative tasks with different students were improving Tomas's social interaction. Several educators also highlighted the need to reinforce instructions and suggested that visual prompts were useful in conveying information in a different way. To this end, five practitioners mentioned that art was their students' preferred subject, therefore embedding creative tasks into the literacy curriculum may be useful for this group. Dawn reflected on the possible benefits of creative tasks for Nathan: '*I think because of his autism, he has a lot of sensory overload so I think that calms him down*'.

Whole-school approaches. Along with individual strategies, educators also suggested some whole-school approaches to cultivating more inclusive learning environments, some of which apply to bilingual or autistic learners respectively, and some of which are of particular importance for children who are both bilingual and autistic. First, practitioners considered how to best integrate children into mainstream classrooms. Bethan, for instance, noted that her pupil '*wasn't used to being part of a classroom, he just wanted to work on his own. So he really needed that extra help*'. Building on the concept of 'mainstreaming' (Leung, 2010; Morewood et al., 2011), Debbie argued that '*the educational system needs to support them, not isolate them*'. This is crucial for bilingual autistic pupils, who may feel different or isolated from peers. While being sensitive to children's possible desire to fit in with peers, practitioners also underscored the

importance of celebrating their linguistic differences and neurodiversity when opportunities arise. Debbie and Robert highlighted the need to recognise the linguistic repertoires of their bilingual students:

We need to be celebrating what they can do and reminding them that to move to another country, to speak a different language in another country, to be successful, is pretty blooming amazing. (Debbie)

You sort of go 'Wow! How have you got all this knowledge inside your head? Cos I've not got a clue what you're talking about'. (Robert)

Debbie also points to the need to balance the support required for autistic pupils with an acknowledgement of their achievements: *'what the children with autism can achieve needs to be recognised and valued'*.

Finally, practitioners identified effective collaboration with parents as a vital strategy for providing support to bilingual learners on the autism spectrum. For instance, Dawn mentioned that sharing Nathan's timetable and intervention plan with his mother was a useful approach for promoting parental collaboration. This is particularly pertinent for parents of EAL children, who may lack access to important information regarding their children's education because of linguistic and cultural differences (Evans *et al.*, 2016).

Discussion

This study sought to shed light on the perspectives and experiences of educational practitioners who provide support to bilingual children on the autism spectrum. While differences of opinion emerged regarding the value and feasibility of bilingualism in autism, some consensus was reached that bilingualism has cognitive, cultural and communicative advantages for non-autistic children, but these benefits may not always translate to autistic pupils. Practitioners believed that bilingualism was possible for some but not all autistic pupils, and an autistic child's capacity for bilingualism depended on their individual language profile. Several participants were concerned that bilingualism was hindering their pupil's literacy development and that code-switching was too cognitively demanding. To some extent, this finding is consistent with previous research that identified reading comprehension difficulties among both autistic children (Brown *et al.*, 2013) and EAL pupils (Murphy, 2018). It also chimes with parental concerns that bilingualism could confuse the language development of autistic children (Hampton *et al.*, 2017).

These findings reveal an underlying tension between practitioners' concern for developing the child's English proficiency and families' desire to maintain the home language (Robertson *et al.*, 2014; Howard *et al.*, 2020). It is perhaps not surprising that in England, educators' focus was on the development of the child's English, given that it is a significant predictor of the academic success of EAL pupils (Strand *et al.*, 2015) and many autistic children, even in mainstream schools, have moderate to severe language difficulties (Kjellmer *et al.*, 2018). However, prioritising English over the home language may result in fewer opportunities for bilingual children on the autism spectrum to develop both languages than their non-autistic bilingual counterparts (Marinova-

Todd *et al.*, 2016). Instead, sufficient time and support for home language maintenance should be given to autistic children, as evidenced by one practitioner's experience of seeing her pupil gain proficiency in both languages, despite it taking longer than for the typically developing children in her class. One-off advice given to parents to adopt a monolingual approach may then have serious, negative consequences for autistic children, preventing those with the potential to be bilingual from having the opportunity to even try. These findings suggest that not only should language advice be given on a case-by-case basis (Hampton *et al.*, 2017), but it should also be re-evaluated according to the child's ongoing linguistic development.

Certain differences emerged between practitioners' attitudes towards bilingualism in Wales and in England. The variation in perspectives could be attributed to the fact that practitioners in Wales were generally bilingual themselves, while those in England tended to identify as monolingual. It is unsurprising that practitioners who work within a bilingual educational system (i.e. in Welsh-medium schools in Wales) are more convinced by the benefits of dual language use, and therefore perhaps more likely to endorse bilingualism. Practitioners working in bilingual schools in Wales were also more likely to come across the phenomenon of 'bilingualism in autism', given that all their pupils were educated in two languages, and may thus consider it to be a more normative experience. In England, by contrast, particularly in schools with fewer EAL pupils, practitioners regarded English as the sole language of instruction in the school environment and home languages as the domain of familial life. It could therefore be argued that practitioners' views were partly influenced by the linguistic profile of the school in which they worked; for example, educators in Wales and those working in schools in England with a high number of EAL pupils tended to hold more favourable views about bilingualism than practitioners in more monolingual educational settings. This finding reflects the conclusions drawn in Howard *et al.* (2019), in which bilingual autistic children educated in more multilingual environments held more positive attitudes about being bilingual than those in more monolingual school settings. However, in both England and Wales, there was a sense that children gave English superior status in their lives than their home language, or Welsh, which is consistent with previous research (Thomas *et al.*, 2012; Liu & Evans, 2016).

Several challenges emerged, both for bilingual autistic learners and the practitioners who support them. This study builds on existing evidence which suggests that social interaction with peers can be more difficult for autistic children (Symes & Humphrey, 2010). It is vital that practitioners support the social interaction of bilingual autistic pupils, as this helps to develop both social skills and linguistic confidence, which are especially pertinent for newly arrived EAL pupils. Educators also noted the difficulties of identifying special educational needs in bilingual pupils and finding adequate ways to assess them. This was especially difficult in Wales, as practitioners were uncertain about which language was most appropriate for assessment purposes. Unlike previous research (Symes & Humphrey, 2010; McNerney *et al.*, 2015), bullying was rarely mentioned as a major issue for the children being discussed. Educators in England had less confidence in supporting bilingual students, which tallies with the findings that EAL training in England is insufficient (Murphy & Evangelou, 2016). Perhaps as a result, practitioners were clear that the school setting was an 'English only' environment; they were not expected to know the home

language nor devote curriculum time to its development. Many of the children being discussed were born in the UK and had received all their schooling in England or Wales, therefore it is possible that for practitioners, the child's autistic identity was more prominent in their school interactions than their bilingual one.

Conclusion

This study offers unique insights into the perspectives and experiences of practitioners who provide support to bilingual autistic pupils in two linguistically different educational settings, and contributes to the nascent literature on stakeholders' experiences when bilingualism and autism interact (Hampton *et al.*, 2017; Howard *et al.*, 2019). Our findings point to some key implications for educational practice and policy. In the classroom, bilingual autistic children may need more time to process information, given the particular challenges associated with autism and acquiring a new language. This may be achieved through reinforcement of instructions, multimodal teaching approaches and giving students opportunities to express themselves through different mediums, such as art. Whilst it is important to acknowledge and respond to the challenges faced by this group of learners, improving inclusion for bilingual autistic children also involves facilitating opportunities for social interaction with peers (Symes & Humphrey, 2010; Anderson *et al.*, 2016), and celebrating their strengths and differences. Moreover, family-school partnerships are particularly pertinent for parents of EAL children, who may lack access to information regarding their child's education because of linguistic and cultural differences (Evans *et al.*, 2016). Important lessons could also be learnt from other contexts, such as Sweden, where mother-tongue language instruction is embedded into the educational system (Cabau, 2014) and therefore more status is afforded to home languages. Finally, given the disconnect between some educators' belief that bilingualism is detrimental to autistic children's development and the growing body of literature that suggests it is not (Dai *et al.*, 2018; Lim *et al.*, 2018), we recommend raising awareness in schools and providing educators with more training on autism (Iadarola *et al.*, 2015) and bilingualism (Evans *et al.*, 2016).

This study is strengthened by its use of IPA as the overarching methodological framework. By drawing on an IPA approach, participants provided insights into their professional practice in providing support to bilingual autistic pupils. By comparing experiences between two linguistically different contexts (e.g. EAL learners in England and bilingual Welsh-English learners in Wales), this study demonstrates that provision for autistic children to learn and maintain two languages differs from context to context, and different educational settings necessitate different approaches. Indeed, the differences found between practitioner perspectives in England and Wales may be reflected in other international contexts, depending on whether educational systems are monolingual or bilingual.

The present study would have benefitted from a more equal balance of different practitioners; this was the result of practitioners being recruited after children and families in the initial stage of the research project (Howard *et al.*, 2019). Although teachers, teaching assistants and SENCos were consulted, more research is needed to elicit the perspectives of speech and language therapists, who play a crucial role in

autistic children's linguistic development. Similarly, an equal number of practitioners from England and Wales would also have provided a more balanced view of differences between the two contexts. It is also acknowledged that this article focuses more on the linguistic and social consequences of bilingualism in autism than on developmental aspects of the phenomenon. In like manner, the study's inclusion criteria stipulated that practitioners in the study worked with a child on the autism spectrum, but the exact presentation was not clarified, which may represent a limitation of this study. Just as the profiles of bilingual children cannot be homogenised, neither can the profiles of children on the autism spectrum. Moreover, practitioners working with autistic children with minimal or no speech and co-morbid learning disabilities were not consulted. Finally, taking detailed information about participants' own language backgrounds through a language background questionnaire would have provided better insights into their perceptions of the value of bilingualism, for both autistic and non-autistic children.

Building on the findings of Howard *et al.* (2019), research is required to further understand autistic students' own perspectives on whether bilingualism is an asset or an obstacle to their educational progress. Future research should also explore the pedagogical and policy factors associated with teaching children on the autism spectrum from linguistically diverse backgrounds. For example, consideration is needed of mediating variables such as relationship building, school structures and the child's age when bilingualism interacts with autism in educational environments. To this end, research is needed that finds more effective ways of identifying and supporting learning needs in children from multilingual backgrounds to ensure that all learners have access not merely to an 'equality of presence', but more crucially to 'an equality of participation' (Franson, 1999) in the classroom and beyond.

Acknowledgements

The authors wish to thank the educational practitioners who took part in this research as well as the reviewers for their insightful comments and suggestions. The first author was funded by a University of Cambridge PhD scholarship in association with the AHRC-funded project 'Multilingualism, Empowering Individuals, Transforming Societies' (MEITS). The second and third authors were supported by the UK Arts and Humanities Research Council grant 'Multilingualism Empowering Individuals, Transforming Societies' (MEITS) AH/N004671/1.

Ethical guidelines

The ethical guidelines outlined by BERA (2018) were consulted and adhered to at each stage of this research and ethical approval was granted from the School of Humanities and Social Sciences at the University of Cambridge before the study began (Case No. 17/136).

Conflict of interest

The authors have no conflict of interest to declare.

Data availability statement

Research data are not shared at the time of publication.

References

- American Psychiatric Association (2013) *Diagnostic and statistical manual of mental disorders* (5th edn) (DSM-5) (Washington, D.C., APA).
- Anderson, C., Foley, Y., Sangster, P., Edwards, V. & Rassool, N. (2016) *Policy, pedagogy and pupil perceptions: EAL in Scotland and England* (Cambridge/Edinburgh, The Bell Foundation/University of Edinburgh).
- Bialystok, E. (2018) Bilingual education for young children: Review of the effects and consequences, *International Journal of Bilingual Education and Bilingualism*, 21(6), 666–679.
- Bird, E. K. R., Trudeau, N. & Sutton, A. (2016) Pulling it all together: The road to lasting bilingualism for children with developmental disabilities, *Journal of Communication Disorders*, 63, 63–78.
- Brown, H. M., Oram-Cardy, J. & Johnson, A. (2013) A meta-analysis of the reading comprehension skills of individuals on the autism spectrum, *Journal of Autism and Developmental Disorders*, 43(4), 932–955.
- Cabau, B. (2014) Minority language education policy and planning in Sweden, *Current Issues in Language Planning*, 15(4), 409–425.
- Costley, T. (2013) English as an additional language, policy and the teaching and learning of English in England, *Language and Education*, 28(3), 276–292.
- Dai, Y. G., Burke, J. D., Naigles, L., Eigsti, I. M. & Fein, D. A. (2018) Language abilities in monolingual- and bilingual-exposed children with autism or other developmental disorders, *Research in Autism Spectrum Disorders*, 55, 38–49.
- DfE (2018) *Schools, pupils and their characteristics*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/719226/Schools_Pupils_and_their_Characteristics_2018_Main_Text.pdf (accessed 20 November 2018).
- DfE (2019) *National tables: Special educational needs in England*. Available online at: www.gov.uk/government/statistics/special-educational-needs-in-england-january-2019 (accessed 9 October 2019).
- Drysdale, H., van der Meer, L. & Kagohara, D. (2015) Children with autism spectrum disorder from bilingual families: A systematic review, *Review Journal of Autism and Developmental Disorders*, 2(1), 26–38.
- Ellis, E. (2004) The invisible multilingual teacher: The contribution of language background to Australian ESL teachers' professional knowledge and beliefs, *International Journal of Multilingualism*, 1(2), 90–108.
- Elsabbagh, M., Divan, G., Koh, Y. J., Kim, Y. S., Kauchali, S., Marcin, C. & Fombonne, E. (2012) Global prevalence of autism and other pervasive developmental disorders, *Autism Research*, 5(3), 160–179.
- Evans, M., Schneider, C., Arnot, M., Fisher, L., Forbes, K., Hu, M. & Liu, Y. (2016) *Language development and school achievement: Opportunities and challenges in the education of EAL students* (Cambridge, The Bell Foundation).
- Franson, C. (1999) Mainstreaming learners of English as an additional language: The class teacher's perspective, *Language, Culture and Curriculum*, 12(1), 59–71.
- Gernsbacher, M. A., Morson, E. M. & Grace, E. J. (2016) Language development in autism, in: G. Hickok & S. L. Small (Eds) *Neurobiology of language* (New York, Academic Press), 879–886.
- Giorgi, A. (2010) Phenomenology and the practice of science, *Existential Analysis: Journal of the Society for Existential Analysis*, 21(1), 3–22.
- Hampton, S., Rabagliati, H., Sorace, A. & Fletcher-Watson, S. (2017) Autism and bilingualism: Exploring parents' perspectives and experiences, *Journal of Speech, Language, and Hearing Research*, 60(2), 435–446.

- Hodges, R. S. (2011) Welsh-medium education and parental incentives – the case of the Rhymni Valley, Caerffili, *International Journal of Bilingual Education and Bilingualism*, 15 (3), 355–373.
- Howard, K., Gibson, J. & Katsos, N. (2020) Parental Perceptions and Decisions Regarding Maintaining Bilingualism in Autism, *Journal of autism and developmental disorders*.
- Howard, K. B., Katsos, N. & Gibson, J. L. (2019) The school experiences of bilingual children on the autism spectrum: An interpretative phenomenological analysis, *Research in Developmental Disabilities*, 87, 9–20.
- Humphrey, N. (2008) Including pupils with autistic spectrum disorders in mainstream schools, *Support for Learning*, 23(1), 41–47.
- Iadarola, S., Hetherington, S., Clinton, C., Dean, M., Reisinger, E., Huynh, L. & Harwood, R. (2015) Services for children with autism spectrum disorder in three, large urban school districts: Perspectives of parents and educators, *Autism*, 19(6), 694–703.
- Jegatheesan, B. (2011) Multilingual development in children with autism: Perspectives of South Asian Muslim immigrant parents on raising a child with a communicative disorder in multilingual contexts, *Bilingual Research Journal*, 34(2), 185–200.
- Kenny, L., Hattersley, C., Molins, B., Buckley, C., Povey, C. & Pellicano, E. (2016) Which terms should be used to describe autism? Perspectives from the UK autism community, *Autism*, 20 (4), 442–462.
- Kjellmer, L., Fernell, E., Gillberg, C. & Norrelgen, F. (2018) Speech and language profiles in 4- to 6-year-old children with early diagnosis of autism spectrum disorder without intellectual disability, *Neuropsychiatric Disease and Treatment*, 14, 2415.
- Leung, C. (2010) English as an additional language: Learning and participating in mainstream classrooms, in: P. Seedhouse, S. Walsh & C. Jenks (Eds) *Conceptualising 'learning' in applied linguistics* (London, Palgrave Macmillan), 182–205.
- Lim, N., O'Reilly, M. F., Sigafos, J. & Lancioni, G. E. (2018) Understanding the linguistic needs of diverse individuals with autism spectrum disorder: Some comments on the research literature and suggestions for clinicians, *Journal of Autism and Developmental Disorders*, 48(8), 2890–2895.
- Lindsay, S., Proulx, M., Scott, H. & Thomson, N. (2013) Exploring teachers' strategies for including children with autism spectrum disorder in mainstream classrooms, *International Journal of Inclusive Education*, 18, 101–122.
- Liu, Y. & Evans, M. (2016) Multilingualism as legitimate shared repertoires in school communities of practice: Students' and teachers' discursive construction of languages in two schools in England, *Cambridge Journal of Education*, 46(4), 553–568.
- Lund, E. M., Kohlmeier, T. L. & Durán, L. K. (2017) Comparative language development in bilingual and monolingual children with autism spectrum disorder: A systematic review, *Journal of Early Intervention*, 39(2), 106–124.
- Marinova-Todd, S. H., Colozzo, P., Mirenda, P., Stahl, H., Bird, E. K. R., Parkington, K. & Geneese, F. (2016) Professional practices and opinions about services available to bilingual children with developmental disabilities: An international study, *Journal of Communication Disorders*, 63, 47–62.
- McNerney, C., Hill, V. & Pellicano, E. (2015) Choosing a secondary school for young people on the autism spectrum: A multi-informant study, *International Journal of Inclusive Education*, 19 (10), 1096–1116.
- Molyneux, P., Scull, J. & Aliani, R. (2015) Bilingual education in a community language: Lessons from a longitudinal study, *Language and Education*, 30(4), 337–360.
- Morewood, G. D., Humphrey, N. & Symes, W. (2011) Mainstreaming autism: Making it work, *Good Autism Practice (GAP)*, 12(2), 62–68.
- Murphy, V. A. (2018) Literacy development in linguistically diverse pupils, in: D. Miller, F. Bayram, J. Rothman & L. Serratrice (Eds) *Bilingual cognition and language: The state of the science across its subfields* (Amsterdam, John Benjamins), 155–182.
- Murphy, V. A. & Evangelou, M. (Eds) (2016) *Early childhood education in English for speakers of other languages* (London, British Council).

- Pesco, D., MacLeod, A. A., Bird, E. K. R., Cleave, P., Trudeau, N., de Valenzuela, J. S. & Segers, E. (2016) A multi-site review of policies affecting opportunities for children with developmental disabilities to become bilingual, *Journal of Communication Disorders*, 63, 15–31.
- Roberts, A. (2017) *Rapid review of the Welsh in Education Strategic Plans – 2017–20* (Cardiff, Welsh Government).
- Robertson, L. H., Drury, R. & Cable, C. (2014) Silencing bilingualism: A day in a life of a bilingual practitioner, *International Journal of Bilingual Education and Bilingualism*, 17(5), 610–623.
- Smith, J., Flowers, P. & Larkin, M. (2009) *Interpretative phenomenological analysis: Theory, method and research* (London, SAGE).
- Strand, S., Lindsay, G. & Pather, S. (2006) *Special educational needs and ethnicity: Issues of over- and under-representation* (London, Department for Education and Skills).
- Strand, S., Malmberg, L. & Hall, J. (2015) *English as an Additional Language (EAL) and educational achievement in England: An analysis of the National Pupil Database* (London, Education Endowment Fund).
- Symes, W. & Humphrey, N. (2010) Peer-group indicators of social inclusion among pupils with autistic spectrum disorders (ASD) in mainstream secondary schools: A comparative study, *School Psychology International*, 31(5), 478–494.
- Thomas, E. M., Lewis, W. G. & Apolloni, D. (2012) Variation in language choice in extended speech in primary schools in Wales: Implications for teacher education, *Language and Education*, 26(3), 245–261.
- Thompson, K. D. (2013) Is separate always unequal? A philosophical examination of ideas of equality in key cases regarding racial and linguistic minorities in education, *American Educational Research Journal*, 50(6), 1249–1278.
- Uljarević, M., Katsos, N., Hudry, K. & Gibson, J. (2016) Practitioner review: Multilingualism and neurodevelopmental disorders – an overview of recent research and discussion of clinical implications, *Journal of Child Psychology and Psychiatry*, 11, 1205–1217.
- Welsh Government (2017) *Cymraeg 2050: A million Welsh speakers*. Available online at: <https://gov.wales/sites/default/files/publications/2018-12/cymraeg-2050-welsh-language-strategy.pdf> (accessed 4 December 2018).
- Welsh Government (2018) *Pupils by local authority, region and Welsh medium type*. Available online at: <https://stats.wales.gov.wales/Catalogue/Education-and-Skills/Schools-and-Teachers/Schools-Census/Pupil-Level-Annual-School-Census/Welsh-Language/pupils-by-localauthorityregion-welshmediumtype> (accessed 4 December 2018).
- Wing, L. (Ed.) (1988) *Aspects of autism: Biological research* (London, Gaskell).
- Yamasaki, B. L. & Luk, G. (2018) Eligibility for special education in elementary school: The role of diverse language experiences, *Language, Speech, and Hearing Services in Schools*, 49(4), 889–901.
- Yu, B. (2013) Issues in bilingualism and heritage language maintenance: Perspectives of minority-language mothers of children with autism spectrum disorders, *American Journal of Speech-Language Pathology*, 22, 10–24.
- Yu, B. & Hsia, S. (2018) Inclusion of heritage language learners on the autism spectrum: Lessons from second-generation parents, *International Journal of Applied Linguistics*, 29, 356–369.
- Zablotsky, B., Boswell, K. & Smith, C. (2012) An evaluation of school involvement and satisfaction of parents of children with autism spectrum disorders, *American Journal of Intellectual Developmental Disability*, 117(4), 316–330.
- Zhou, V., Munson, J. A., Greenson, J., Hou, Y., Rogers, S. & Estes, A. M. (2019) An exploratory longitudinal study of social and language outcomes in children with autism in bilingual home environments, *Autism*, 23(2), 394–404.