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**Title:**

**Developing Mainstream Resource Provision for Pupils with Autism Spectrum Disorder: Staff Perceptions and Satisfaction**

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## **Abstract**

The majority of children and young people with autism spectrum disorder are educated in mainstream schools. The diverse needs of this group of pupils has led to a continuum of provision being promoted in the UK and other countries, and developed at a local level. This continuum includes mainstream schools with resource provision which can offer enhanced physical and staffing resources beyond those normally provided in mainstream schools. How teaching staff perceive such provisions and their development over time have not previously been investigated. The current study was designed to explore the perceptions of staff working in five primary and three secondary school resource provisions in one Local Authority throughout the first year of the provisions and at three year follow up. 66 interviews with senior teachers, mainstream teachers and resource provision staff took place during the initial year, with 21 three-year follow up interviews. Data were analysed using inductive and deductive thematic analysis. Data provide tentative support for Bronfenbrenner's bio-ecosystemic theory as a framework for representing the complex interactions within the resource provision schools, between systems, and their development over time. Findings and implications are discussed in relation to theory and practice.

Key words: Autism Spectrum Disorder; inclusion; education; resource provision; staff perceptions.

## **Developing Mainstream Resource Provision for Pupils with Autism Spectrum Disorder: Staff Perceptions and Satisfaction**

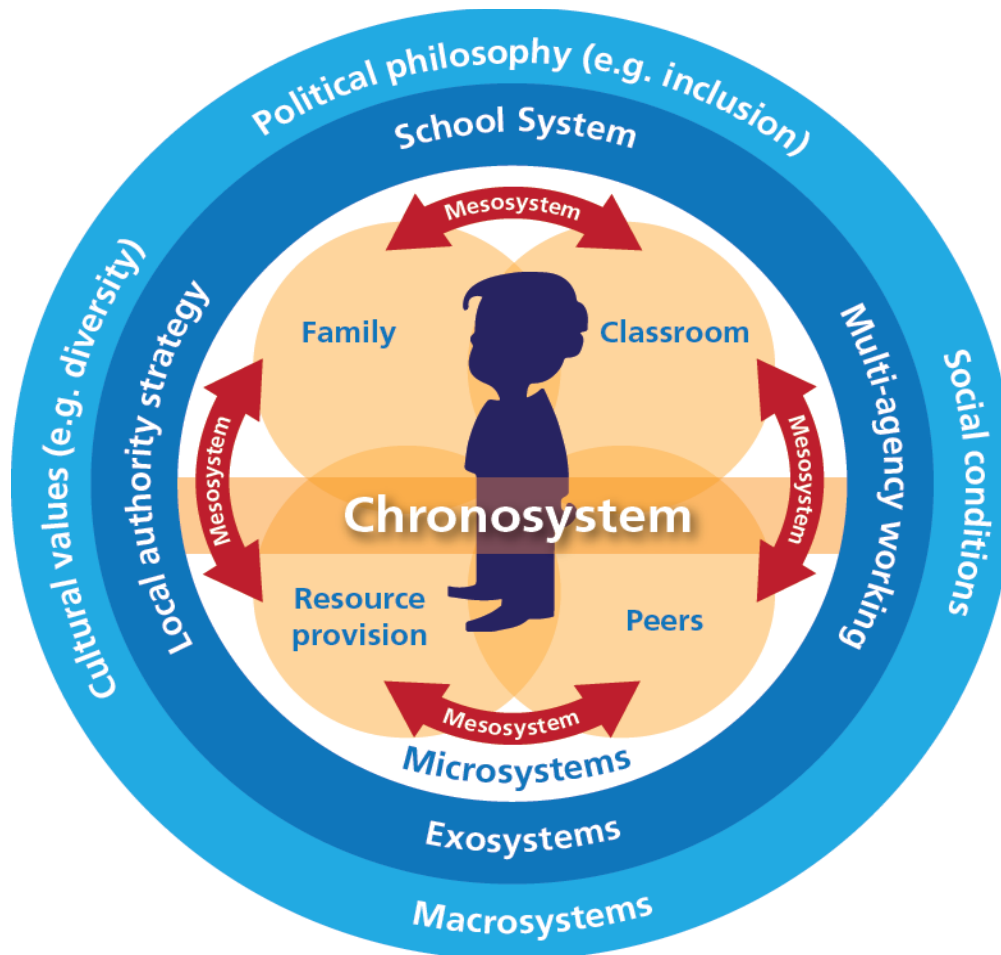
### ***Introduction***

Many children and young people with autism spectrum disorder (ASD) are currently educated in a mainstream education setting, with the figure around 70% in England (DfE, 2014). Attending a mainstream school has many potential benefits relating to curriculum access and social inclusion; however, there are also challenges for schools in addressing the risk of social exclusion and bullying (Symes & Humphrey, 2010), supporting the development of friendships (Campbell & Barger, 2014) and promoting academic achievement (DfE, 2013). In order to meet the needs of this group of pupils, Ravet (2011) argues for a more subtle understanding of provision for pupils with ASD in mainstream schools, which acknowledges the diversity of this group of young people. Ravet (2011) argues for an integrationist stance which adopts a middle ground position of valuing neurodiversity whilst also acknowledging a need for autism specific pedagogy to complement existing inclusionary pedagogies.

A comprehensive model for conceptualising the inclusion of pupils with ASD in mainstream schools and mainstream schools with resource provision is Bronfenbrenner's bio-ecosystemic model (2005). This model can be used to represent the interaction of interconnected individual, social and organisational factors which shape a person's development and experience over the lifespan (see figure 1). An overarching dimension within Bronfenbrenner's model is the chronosystem which relates to changes over time. At the macrosystem level, which focuses on beliefs and philosophies, advances in our knowledge of autism mean that autism is no longer considered a rare disorder. The international prevalence rate is 0.62 per cent of the population (Elsabbagh et al., 2012) with approximately two thirds of those diagnosed falling within the average range of cognitive ability (Baird et al., 2006). The increasing heterogeneity of those identified with ASD (CDC, 2006) has implications for educational provision, including a relatively widespread consensus that a continuum of provision is required at this macro level (e.g. Batten et al., 2006; Simpson, Mundschenk & Heflin,

2011). The range of provision offered in the UK is likely to include mainstream schools, additionally resourced mainstream school provision and special school settings.

**Figure 1. The bio-ecosystemic model of human development, adapted from Bronfenbrenner (2005).**



The third level is the exo-system which highlights the role played by institutions such as local authorities, educational systems, communities and services external to the school. At the exosystem level, school systems are not static and the extensive literature on implementation of interventions highlights the importance of contextual factors which can facilitate or act as barriers to implementation of new initiatives (Durlak & DuPre, 2008; Lendrum & Humphrey, 2012). In resource provision schools, examples of such factors are staff training and leadership support. For changes to become embedded, at least two years are needed for basic changes and longer for more complex initiatives (Fullan, 2001). To date there has been very limited exploration of school system change over time in the ASD literature.

External systems are likely to impact - positively or negatively - upon the effectiveness of schools in meeting the needs of pupils with ASD. In relation to resource provision, Frederickson, Jones and Lang (2010) identified that staff wanted greater clarity from their local authority regarding admission criteria, as well as increased funding and improved systems for transition to secondary school. Glashan, McKay and Grieve (2004) also identified a need for more specialist outreach support for mainstream schools.

Developing effective joint working with external services has been identified as important for including pupils with ASD. Glashan et al. (2004) describe how mainstream schools developed multi-agency meetings and networks in order to access additional advice and support as needed. Direct access to therapeutic input such as speech and language therapy (SALT) and occupational therapy have also been recognised as important, with SALT in particular being increasingly integrated within mainstream school provision (Glashan et al., 2004; Morewood, Humphrey & Symes, 2011). Furthermore, Glashan et al. (2004) identified that developing working relationships prior to a child's arrival in mainstream was important.

At the level of school systems, aspects which appear to be common to inclusive school practice for pupils with ASD are ethos, leadership and environment. An important starting point is a shared commitment across all staff towards the inclusion of pupils with ASD (Humphrey & Symes, 2013). This can be facilitated through staff training which incorporates whole staff awareness (Ravet, 2011) and targeted training according to need (Glashan et al., 2004), both of which have been found to reduce teacher stress and increase strategy use (Probst & Leppart, 2008). Developing empathy among staff is also a key focus of autism awareness training, which enables understanding of autism and facilitates adaptation of teaching rather than reliance on generalist approaches. Without this understanding, mainstream inclusion has been found to be less likely to be effective, even with the presence of a paraprofessional<sup>1</sup> (Symes & Humphrey, 2011). Morewood et al's.' (2011) case study of an inclusive high school provides an example of a saturation approach where ASD awareness was embedded within the whole school ethos and as part of everyday practice. However, not all

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<sup>1</sup> teaching assistants in the UK

mainstream schools may have such strong inclusive approaches in place. Frederickson et al. (2010) found that schools with resource provision tended to have higher levels of training and made more whole school adaptations for pupils with ASD than mainstream schools. This has clear implications for successful inclusion.

Supportive school leadership is also crucial (Symes & Humphrey, 2011). Having a member of the senior leadership team who has expertise in supporting pupils with ASD and promotes ASD awareness (Morewood et al., 2011) ensures the needs of pupils with ASD are prioritised and staff are supported in developing their skills. Symes and Humphrey (2011) also identified the importance of collaborative working, with the expertise of all staff (e.g. paraprofessionals) being valued as part of a whole school approach. The physical environment - particularly the design of the mainstream school (Morewood et al., 2011) and location and layout of additional provision within it - are also important to consider (Scott, 2009) as facilitators or barriers to effective support and inclusion.

The level which is most immediate to the individual is the micro-system, examples of which include the classroom, resource provision, family and peers. These systems interact dynamically and are known together as the mesosystem. At the classroom level adapting the curriculum; providing autism specific approaches and collaborative working have been emphasised. Adaptations might include actively teaching social understanding and the 'hidden curriculum' (Smith-Myles & Simpson, 2001). Proactively managing challenging behaviour is also important for facilitating positive relationships between included pupils with ASD and their mainstream teachers and peers (Robertson, Chamberlain & Kasari, 2003). Collaborative teacher-paraprofessional relationships (Robertson et al., 2003) have also been identified as facilitating the social inclusion of children with ASD at the classroom level.

Schools with resource provision may be able to provide more individualised planning and access to targeted interventions such as social stories and the Picture Exchange Communication System (PECS) (Frederickson et al., 2010). Frederickson et al. (2010) also identified talking to pupils



as a strategy more frequently employed in resource provision, enabling staff to understand the pupil's needs more fully in the development of empathetic approaches (Charman et al., 2011).

At the family level, inclusion in mainstream is likely to be facilitated when families and school staff regularly share information (Roberston et al., 2003), including consideration of how information about a child's needs is shared (Ochs, Kremer-Sadlik, Solomon & Sorota, 2001). This resonates with Frederickson et al. (2010) who found that resource provision schools were more likely to develop strong home-school partnerships and engage in two-way communication with parents, particularly in relation to mutual support and collaborative behaviour management.. However, friction can occur if there is a mismatch between parent expectations and the reality of mainstream inclusion (Glashan et al., 2004).

The needs of peers should also be considered within an inclusive school approach. As highlighted by Humphrey and Symes (2011), it cannot be assumed that peers will understand the needs of pupils with ASD. Their reciprocal effects model advocates strategies such as developing peer awareness (Frederickson et al., 2010; Morewood et al., 2011) as a means of increasing peer understanding and reducing the risk of social exclusion.

Bronfenbrenner's model potentially offers an interconnected theory for integrating ASD school inclusion research, however, it has been critiqued for being difficult to evaluate across multiple levels; neglecting children's role as active participants and underplaying the importance of feelings and motivation. Bearing these limitations in mind, the current study aimed to extend the application of the model by focusing specifically on mainstream schools with resource provision as they developed their practice over a three year period.

### ***Methodology***

This research was part of a wider evaluation of the effectiveness of resource provision in five primary and three secondary schools admitting pupils with ASD and a smaller number of pupils with speech and language impairment (SLI) (Authors, 2013) in Manchester, England. Manchester is an urban authority containing areas of significant deprivation, ranking fifth out of 326 local authorities in the

2015 Income Deprivation Affecting Children Index (Department for Communities and Local Government, 2015).

Given the importance of staff attitudes for effective inclusion, the specific aims of current study were to focus on the experience of staff working with the pupils with ASD during the first year of admission to the provisions and at three year follow up. Interviews were also conducted with pupils and staff as part of the broader evaluation, and these have been incorporated into forthcoming papers focusing on pupil and parent perspectives. Ethical approval for the research was granted by the host institution.

Schools volunteered to become resource provision schools and, once approved, the local authority funded new buildings, resources and training. The local authority advised schools regarding issues such as staffing ratios, but the schools retained a high degree of autonomy in the development of their own provision (e.g. employing and deploying their staff). A training model was developed which included: regular resource provision network meetings convened by a local authority representative; two days of training for all staff in each school to ensure a shared commitment and level of understanding about ASD/SLI; and six days of enhanced training for staff in the resource provision teams. The training focused on strategies which were common to both groups of pupils as well as ASD and SLI specific pedagogies. As the majority of pupils admitted to the provisions had a diagnosis of ASD, the current paper focuses upon how schools adapted to support this group of pupils, whilst recognising that developments were part of a broader school initiative.

Overall, 43 staff<sup>2</sup> took part in the research, 15 of whom participated in both the initial evaluation and follow up, and 6 (one provision lead, four para-professionals, and a Specialist Teacher) who only took part in the follow up report. Potential participants were invited to be interviewed by the research team on a strictly opt-in basis having been informed about the research. Sampling was purposeful, with the majority of staff directly involved in the management and running of the

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<sup>2</sup> Participants were: members of the senior leadership team (head teachers [6], assistant head teachers [3] and SENCo [1]); resource provision leads [12, including one assistant lead]; paraprofessionals [13]; mainstream primary school class teachers (initial evaluation only) [7]; and a specialist teacher [1].

provisions involved, as well as classroom teachers of pupils in primary schools who were able to access a substantial proportion of mainstream lessons.

There was a broad age range among staff, from mid-20s to mid-50s, with the majority in the 31-40 age group. The overwhelming majority were female, apart from two primary head teachers, one secondary SENCo, one secondary provision lead, and one paraprofessional. All of the qualified teaching staff in the provisions were experienced practitioners, with experience in both mainstream and SEND education. Only one provision lead had come directly from a mainstream non-SEND specialised background, but she was under-going additional ASD-specific training and had worked in the school for several years prior to taking up the post. The paraprofessionals working in the provisions varied widely in their experience, but a majority had spent considerable time working with SEND pupils in the past. Approximately one third of resource provision staff had additional ASD qualifications, and all were in the process of gaining additional accreditation as part of their on-going training provided by the local authority. All but two of the teaching staff appointments were external, with paraprofessionals a combination of internal and external appointments.

A series of semi-structured interviews took place at three key points during the first year (i.e. during the first term of pupil admissions, after six months and after a full year) with a further follow up three years later. This resulted in 66 interviews (63 individual and three joint) for the initial evaluation and 21 (20 individual and one joint) for the follow up. The long term follow up interviews all took place at the same time of year and were at least three years after the school had begun admitting pupils (for some schools it was slightly longer than three years owing to variability between schools in terms of when admissions began). The interviews provided an opportunity to explore a wide range of factors which staff perceived as contributing to the development of the resource provisions.

Interviews were recorded, transcribed and analysed using Nvivo (QSR, 2012). An initial inductive thematic analysis (Braun & Clarke, 2006) was undertaken jointly by the two authors. As the initial themes focused on different aspects of the pupils' immediate environment and interactions

between systems, a further deductive analysis was subsequently undertaken using Bronfenbrenner's (2005) bio-ecosystemic theory in order to locate the data within a broader theoretical framework.

### ***Findings***

The findings are presented in relation to four key levels from Bronfenbrenner's model; the macrosystem; exosystem; microsystem and mesosystem. Given the longitudinal focus of the current research the chronosystem is also reflected at each level.

#### Exosystem – a) Local Authority level

The challenges of being part of a wider system led to staff becoming increasingly aware of their role within the wider local authority system over time. Some concerns were expressed about clarity of referral criteria and processes: this included a multi-professional admissions panel which decided which schools children with statements of special educational needs should attend. A SENCO commented, '*Admissions Panel needs to be* very clear about what resource provision is and what it isn't. It's not a substitute for specialist provision'.

This was also reflected in concerns that other mainstream schools without resource provisions might not fully appreciate their responsibilities in meeting the needs of children with ASD, potentially leading to pressure for inappropriate placements. Towards the end of the first year more children were being placed through the admissions panel and staff were keen to avoid situations where children were unexpectedly allocated to resource provision schools without sufficient time for transition, as this lack of preparation could potentially lead to a negative experience for the pupil. Individualised transition was an established practice by the year three follow up. At this point, the profile of children being admitted had become increasingly complex, but staff had a clearer understanding of which children would benefit from the provision. Admitting more complex children was challenging but had been a success,

*'We do talk about being victims of our own success 'cause the more successfully we include children with complex needs, the more complex needs children come here' - SENCO*

Over time, resource provision staff reported that the local authority admissions panel had improved in terms of communication and fairness of decisions. In addition, staff were keen to be members of the panel,

*'I just think that opportunity to go to [admissions] panel meetings is quite good because I think it gives a confidence about the transparency of what goes on at that meeting' - member of SMT*

However, at three year follow up national changes to Special Educational Needs and Disability legislation (DfE/DoH, 2015) meant that the admission panel process locally might change resulting in less resource provision input, which was a concern for staff.

The way in which admissions operated also created concern initially as some schools had very few pupils, which led to concerns that they were not being used effectively. Despite these initial challenges staff remained *'very positive ... dead excited'* (head teacher) and committed to the development of the provision. By the end of the first year, places were generally full and concerns about future capacity were being raised. A head teacher asked, *'what happens with transition to high school? ... if there's not children leaving, how do they get accommodated?'*

Resource provision schools welcomed being approached by mainstream schools in the area for outreach support. Nevertheless, at three year follow up this was described as being a trial and error process which needed further development in collaboration with other services who also delivered outreach. Over the three years of the project links with other schools around transition processes also became more established.

Staff in the resource provisions valued the organisation of regular network meetings by the local authority Strategic Lead: at three year follow up they remained keen for this to continue. Staff found these meetings were helpful for mutual support and sharing practical ideas. They also enabled the local authority to consult provision staff in relation to strategic decisions. A SMT member commented, *'the local authority have always been very supportive, in good times and bad times'*.

Exosystem – b) inter-professional working

Over the three years, resource provision staff increasingly valued the range of input from the SALTs who became part of core staffing and were seen as key to accessing wider support when needed. A resource provision lead commented, *'It's a lot more than speech and language therapy, it's more like wellbeing ... she's my link to that full service school'*.

The model of SALT delivery developed over time to become, *'a more joined up approach where there's joint planning and joint target setting and in some cases joint delivery of activities'* (member of SMT). Primary schools often shared SALTs which promoted communication between resource provision schools. The provisions also offered new opportunities for SALTs, particularly in areas such as social interventions and whole school language provision audits. As the SALTs became more embedded within schools there were some inter-agency challenges. As most SALTs were not directly employed by the schools this created potential conflict between school and employer (National Health Service) expectations. Although SALTs enjoyed opportunities created by the role, there were also issues relating to becoming professionally isolated from other clinically-based SALTs and not always being seen as part of the school team. Regular supervision provided by the SALT clinical lead and case discussion groups were perceived as helping in reducing potential professional isolation.

Access to support from other professional groups was variable initially, but over time schools developed their external support systems. This included regular educational psychologist time; child and adolescent mental health service (CAMHS) support which was particularly valued for supporting pupils with complex mental health needs; and an independent living service for older pupils. Being able to offer in-house therapeutic interventions was identified as a development area at three year follow up.

Exosystem – c) resource provision school systems and training

Many of the schools which became resource provisions were already recognised as having an inclusive approach, and so the ethos of these schools was viewed as a strong foundation. Towards the end of the first year, staff commented on how much the resource provisions had become embedded

within the culture and provision of the schools, *'So I really like the way it integrates the children into the school community'* (class teacher).

The central physical location of the provision within the schools was reflected on positively as a 'key to inclusion' and the resource provision suite was valued as a safe area for pupils to access flexibly, according to need.

In some schools there was initial concern about some mainstream staff being reluctant to take responsibility for resource provision pupils in their classes. However, this changed over time,

*'Trying to get the main staff to accept that these are their children, they're not just our children, it's a group team. We're getting there' - paraprofessional*

Initial training by local professionals was well received and was complemented by the opportunity to network with colleagues from other resource provisions. This increased the sense of being a community of resource provision schools supported by local professionals. Over the three years training evolved in individual schools through joint working, drop-in sessions and offered *'targeted training throughout (provision lead)*. However, staff acknowledged that there was further work to do to ensure induction for new staff was available and there was access to specialist external training.

Management of the provision and leadership were also important. The resource provision leads were often members of school senior management teams. The importance of this was stressed - particularly at three year follow up - as a facilitator for ongoing development within the wider school.

Management challenges for resource provision leads included having sufficient flexibility to support pupils in mainstream while also having staff available to respond to unexpected and/or difficult situations (e.g. incidences of challenging behaviour). Managing diverse needs continued to be a theme at three-year follow up, particularly as children with more complex needs were being admitted.

However, staff also valued the flexibility of the system that had evolved. A resource provision lead teacher commented, *'I love the timetable that it is so kind of fluid...and you can just change things around to suit the children and suit the teachers'*.

Although the resource provision needed to be protected for pupils with allocated places, over time schools developed flexible systems to enable more equitable access according to need. A provision lead noted, *'Our calm room is used by everybody in the school, it's not just used by resource provision children'*.

Schools saw staffing as key to the development of the provisions. A head teacher felt that, *'the most important bit is getting the right staff, because you're only as good as the people who deliver'*. Staff also chose to work in the resource provision because of the fit between their own values and the provision. A provision lead commented, *'I've just loved it. I think it's been brilliant. I love every day. I do! I love it, it's reminded me about why I wanted to teach'*.

#### Microsystems – a) classroom level

Resource provision staff frequently articulated that their role was about seeking opportunities for the resource provision children to be included in mainstream activities. A paraprofessional commented, *'I think the inclusion bit's been really important, especially, because I think ... that's where skills get transferred'*.

This included participation in wider activities such as after school clubs and trips despite the challenges these activities presented for many children,

*'Oh it was great. He went on a rollercoaster, had a nosebleed and everything, but loved it!*

*Absolutely loved it! He said it was the best day he's ever had, so it was great' – class teacher*

The resource provisions supported children in developing a broad range of key skills. Many of the children responded well to whole class behaviour management systems, while some needed more individualised approaches, which were underpinned by careful logging of incidents and proactive management. Staff emphasised the importance of personalised planning for pupils through individual timetables, access to intervention groups and individualised classroom strategies. Targeted time in mainstream classes increased as children became more confident.



Paraprofessionals developed their skills in working with mainstream staff through joint planning of lessons, providing advice re strategies and negotiating support,

*'When I'm planning I know I have support in mind for particular sessions or I'll ask and say 'that could really do with support in that session ...So it's more to do with kind of the communication with other members of staff that you know are coming in to support' – class teacher*

At the beginning of the first year resource provision staff were less confident about their role in supporting teachers, however this developed over time,

*'The teacher's almost being a little bit scared of not knowing what to do and how that child will react so has had them removed from the classroom and brought to resource and I've had to have a conversation with that teacher saying 'no, you treat them like you treat the other children' - provision lead*

Staff were sensitive to the social needs of children and tailored relationship building according to the requirements of the individual child through supported activities (e.g. careful pairing of children). In secondary school there was also an increasing focus on building autonomy and independence. Staff were proud of the academic and broader achievements of the pupils, frequently reflecting on their progress over time,

*'And that is such a contrast when you look at those children when they first arrived, they couldn't access the classroom at all...they couldn't access dinnertimes, they couldn't access assemblies' - head teacher*

Micro-systems b) resource provision

The resource provision staff developed a shared ethos and approach,

*'They're working together as a team...it's the only way to get a consistent response is if four or five people know what that response is' – SMT member*

They supported access to mainstream lessons through strategies such as pre-teaching of lesson material, individualised social stories, and sequence cards to structure break and lunchtime.

Individualisation became integrated into staff practice,

*'Everyone's a bit different or they[resources] need changing a bit, like the now and next board, some might need to be a bit different ...they're all totally different' – paraprofessional*

Getting to know pupils individually was also identified as a key part of the resource provision staff's role. By the three year follow up resource provision staff were confident in asserting the importance of taking time to build relationships with pupils as a foundation for learning,

*'I need to build a good relationship with this child, he needs to trust me, he needs to understand that obviously he likes football, show him that I like football, so build a good relationship... then we will go back to the IEP and look at what his targets were' - provision lead*

This individualised approach was also very evident in the work of resource provision schools to support pupils through a range of transitions. Some pupils required a very tailored approach, particularly if they had had a breakdown in educational provision in the past, but this was handled sensitively,

*'We started in the car park with Graham, then we were in reception, so this is the first week he's been into school. So I've spent an afternoon sat in the car park last week as well, so...this is his first week' - provision lead*

Although these individualised transitions were time consuming, they enabled staff to know the pupil, and for the overwhelming majority of pupils this provided a foundation for successful long-term placement.

Planning and tracking progress also became embedded within staff practice. This included baseline assessment and setting individual education plan (IEP) targets in consultation with parents, pupils and other professionals. Staff sought to ensure that partnership was a two-way process with

negotiated priorities, for instance incorporating shopping into a child's IEP in order to develop life skills. Regular target setting also fed into the on-going cycle of formal review meetings. Staff used a range of assessment tools and recording formats such as photographs and progress logs. For secondary schools this could be more difficult, as there was concern that external evaluators such as Ofsted<sup>3</sup> might not recognise the breadth and extent of progress made by pupils.

The specialised work of the resource provision was perceived to influence practice in the wider school. Strategies including visual timetables, adapted language and positive behaviour approaches became embedded in mainstream classes and were seen to be beneficial for a range of pupils (e.g. those with English as an additional language in a school with high levels of pupil mobility). A resource provision lead teacher identified that, *'Some of the good practice is rippling through now for the other children'*.

#### Microsystem – b) peers

The presence of the provision also enhanced the experiences of special needs pupils in mainstream who did not have additional support allocated,

*'because we have the provision and this happened to be the school they came to, they, they're luckily having a different experience of high school and they're finding friends' – SALT*

Other incidental impacts for peers included other pupils with additional needs being able to participate in interventions as well as promoting increased awareness of diversity generally. A provision lead commented that, *'peers also benefit from accepting differences, you know, accepting the children with differences'*. Resource provision staff often adopted a key role in raising awareness of individual difference across the school, through assemblies and lessons.

#### Microsystem – c) family

Resource provision staff often took the lead in linking with parents via regular telephone calls, text messages, emails and face to face contact. Home school communication was viewed as essential, and staff worked flexibly to ensure that this was tailored to the needs of parents,

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<sup>3</sup> Office for Standards in Education, Children's Services and Skills – a national inspection and regulatory body

*'I have started lately of ringing and talking to her just... reassuring her that if there's any problems to talk to me and you know, we've got that going now' - paraprofessional*

These strategies enabled two-way communication; for instance, one parent used the home school diary to send photographs of what her son had done at the weekend to enable him to participate in class news time. Staff also supported parents to use strategies such as social stories at home.

Home school communication was also important for supporting learning and achievement across a range of areas,

*'When he has done something that's been really big, we have gone and phoned mum and said to her 'we've got some great news...' you know, I mean he ate lasagne and I think mum phoned everybody' – paraprofessional*

In order to reduce potential isolation of parents, schools provided events such as coffee afternoons and one school was proposing activities over the summer holiday, not only to keep the pupils engaged with social activities, but also to ensure that parents did not feel isolated during the long break. Resource provision schools recognised the importance of building positive relationships with pupils and parents, particularly when a child's previous school experiences had been problematic.

Although school staff reported that parents were very positive about the resource provisions, in a small number of cases parents had different aspirations for their children which required careful management. For instance, one parent compared the resource provision less favourably with the special school their child had previously attended and wanted a greater focus on social skills development.

## ***Discussion***

This longitudinal study sought to explore the extent to which Bronfenbrenner's (2005) bio-ecosystemic theory could provide an organising framework for the experiences of a sample staff

working in new resource provision schools over time. The data tentatively demonstrate that the model captures experiences at a range of levels; accommodates change over time and anticipates overlaps and dynamic interactions between and within levels.

The findings show a number of developments over time. It is unsurprising that the schools initially focused on building their internal capacity and skills in delivering this complex and multi-faceted intervention. However, over time schools began to focus on their broader role within the local authority. They not only reflected on these systems in a similar way to participants in Frederickson et al. (2010) but also began to take an active role in shaping them through attendance at placement panel meetings. Linking with a wider community of other resource provision schools was also valued for mutual support and continuing professional development. The local authority also ensured that staff had a high level of training which was also evident in Frederickson et al. (2010). However, with the role of local authorities currently diminishing in England (Smith, 2015), schools will need to find new ways of facilitating these supportive networks.

A number of other exosystem factors were also perceived to be important. Extended multi-agency working was perceived as important (Glashan et al. 2004) as well as the resource provisions being a consistent part of local authority strategy. Common features across the resource provision schools included a school wide inclusive ethos and positive staff attitudes which have been identified in previous research (Morewood et al., 2011; Humphrey & Symes, 2013). The commitment of senior staff and representation of the resource provision at senior management meetings was another strong theme also reflected in the wider literature (Symes & Humphrey, 2011). The physical location of the resource provision was also a facilitator for inclusion as previously discussed by Scott (2009).

At the mesosystem level the resource provisions developed fluid systems which enabled the microsystems to work together in flexible and complementary ways for each child. Examples included sharing of strategies between resource provision, classroom and home; regular communication between the resource provision and families and mainstream pupils benefiting from resource provision opportunities. The higher level of support provided by the resource provision; staff having time to get to know pupils and work with families were also identified as strengths of the

resource provision as previously identified by Frederickson et al. (2010). Similarly, increased attention to planning of transitions has also been previously identified (Glashan et al., 2004). The interconnection of the resource provision and the wider school enabled the provisions to be fully integrated within the school as a whole and often contributed to a positive integration of the school and resource provision over the three years,

*'the resource provision is morphing into the rest of the school now if you like and we try and keep the values of the school as our values, you know, the rules and the regulations and the expectations and all that kind of thing, they're ours as well' - provision lead*

This study has a number of limitations which need to be taken into consideration in the context of overall findings. It was undertaken in one local authority and traces the unique experiences of a group of schools which initially admitted pupils from a special school which was closing. This meant that many of the first pupils to be admitted came from a previously settled placement. This enabled the schools to develop their provision and gradually admit more complex and challenging pupils over time, which might not be the case in other contexts. Although the research focuses on the experiences of staff working with pupils with ASD it was not possible to entirely separate out these views from their experiences of working with pupils with SLI. This mix of pupils reflects the nature of real life contexts but may limit applicability of the findings to contexts which do not have this range of pupils. The data also focus on staff perceptions and although these are positive, this is just one strand and further exploration of the effectiveness of resource provisions as a proximal process in facilitating educational success for pupils with ASD is needed. This will need to incorporate outcome measures and a wider range of perspectives, particularly pupils and parents and enable their role in actively shaping these processes to be explored more fully.

The schools participating in this research became more confident in their practice over time whilst also acknowledging areas for development. Although feelings and motivation are not a central aspect of the bio-ecosystemic model, the commitment and enthusiasm of staff developing the provision was evident throughout and echoes the dedication also found by Charman et al. (2011). Despite this limitation of the model, the findings reinforce the importance of focusing on

microsystems directly experienced by pupils but also highlight the importance of exosystem and macrosystem factors and how these interconnected systems develop and change over time. Schools developing resource provision would benefit from considering how the provision will fit within the wider school, both organisationally and philosophically and how systems within the locality such as admissions panels and networks will support its development.

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