

# **THE PEDAGOGY WHICH UNDERPINS A PERSONAL CURRICULUM FOR PUPILS WITH SEVERE PHYSICAL DISABILITIES, COMPLEX MEDICAL DIFFICULTIES AND A DIVERSE RANGE OF LEARNING NEEDS**

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## **ABSTRACT**

This article considers an appropriate pedagogy for learners with severe physical disabilities, sensory difficulties, complex medical difficulties and a diverse range of cognitive abilities in one particular school. In turn it discusses the curriculum which was designed around that pedagogy. As we consider an era when many of these children would not have survived to attend school, or would have been deemed ineducable, and move to a time in which medical interventions have improved and their right to education is now protected. It discusses how we find ourselves faced with the questions ‘how’ do we teach children such as these? What do we need to take into consideration in order to do so? It is clear that the field of special education has to change in response to a different cohort of students. Finally it suggests that the most appropriate curriculum is one that follows the pedagogy of these particular learners and is personal to them both in terms of the curriculum and assessment due to their diverse difficulties and learning needs.

## **THE CONTEXT**

The 20<sup>th</sup> Century saw huge changes as people with a disability, and the language associated with describing those difficulties, turned from terminology we would consider offensive, to that of a deficit and finally to disability rights and respect. As late as the 1970’s terms such as ‘mental subnormality’ and ‘defective’ were routinely used to describe those with a learning difficulty (Stewart 2015). Indeed, some teachers, still teaching in special education, have degrees which include language in the title that would be considered highly offensive today.

Alongside these changes came access to education, either together with their mainstream peers, or in special schools with specialist provision. In 1948 Education was defined as a universal right by the United Nations Universal Declaration of Human Rights. However, it was not until 1970, just over fifty years

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ago, that the Education (Handicapped Children) Act was enacted, ensuring that children in England and Wales with a learning difficulty were transferred from being the responsibility of mental health services, and became the responsibility of local education authorities. The Warnock report in 1978 introduced the term special educational needs and highlighted the need for provision and inclusion as well as recommending a statement of special educational needs. In the 1980's the cessation of initial teacher training in severe and profound and multiple learning difficulties (Carpenter 2007) and the introduction of the National Curriculum which was presented as a 'curriculum for all' would mean that some teachers were not equipped for the teaching of pupils in special education, and were using an inappropriate curriculum to do so (Imray and Hinchcliffe 2014). Teachers in special schools were surprised to find that initially their pupils were not considered at all, and subsequently that they would be expected to learn discrete subjects and that little thought had been given to how these would be taught or how they would access them (Byers and Lawson 2015).

This is a persisting theme in the education of children with special educational needs, as they are often an afterthought and on the periphery of education (Bovair 1991). Perhaps it is considered easier, as the content knowledge needed is not as complex? It is however, extremely intellectually challenging and requires more than a simpler version of the National Curriculum (Imray 2007). Some see it as an easy option and teachers still arrive for interview at special schools with this preconceived idea when they find mainstream too difficult or wish to slow down before retirement. However, the pedagogical knowledge necessary is far more complex, and the strategies needed and knowledge of each individual child much more in depth.

In addition to the changes in education policy during the 20<sup>th</sup> century, advances in medical science also improved the survival of children with complex medical problems, meaning that children who in the past would not have made it to school, were, with the appropriate support, now able to do so (Carpenter 2007). This is continuing, as the complexity of need increases every year.

In recent years, as the language and policy have changed, and Statements of Special Educational Need have become Education and Health Care Plans (EHCPs) the debate has shifted from whether the education of these children is necessary, to where is the best place to do so, and then to the search for appropriate curricula and pedagogy. This combination of children's rights, their access to education, as well as more complex medical needs being supported, means that a new generation of children with complex learning difficulties and disabilities are now arriving at schools where, Carpenter (2010) suggests, teachers are not pedagogically prepared. The challenge for special schools is to create an inclusive pedagogy, regardless of the school, that supports the progress of those pupils (Carpenter et al 2011).

## THE SCHOOL

The school is a non-maintained, day and residential special school in the south east of England. It currently has 97 children from approximately fifteen local authorities. The Children and young adults in the school are aged from two to nineteen and all have a severe physical disability and complex medical problems. Their education cannot be managed without onsite access to medical teams, including doctors, nurses, and therapists and rehabilitation engineers. Each child has one, or sometimes two, highly skilled people to support their medical needs, their learning and their access to activities. This includes children who have intractable epilepsy, use ventilators and require other medical interventions throughout the day. Approximately 80% also have sensory issues, a visual or hearing difficulty, or in some cases both. The majority are non-verbal and there are a range of alternative, augmentative communication systems. Each class of six to eight pupils has a teacher who acts as a facilitator to learning, who leads a team of specialist education assistants. Joint working, which Lacey et al (2015 pg. 77) suggests is the 'holy grail' of practitioners in this field and is hard to achieve, happens as a matter of course, between health, education, social care and therapy teams. Therapists are in class at least once a week, nurses and doctors are on call, and teachers attend health reviews.

What makes teaching such a challenge is that because, what the children have in common is a physical disability and complex medical difficulties, there is a wide range of cognitive abilities. From those children who have a profound learning difficulty to those whose understanding is in line with their mainstream peers, but whose other difficulties make learning a challenge. Local authority special schools usually do not have children with such a range of cognitive ability, their cohorts are usually made up of pupils with severe or profound and multiple learning difficulties. There are advantages to having this cohort of children as, due to their medical and physical complexity the school has access to medical and therapy colleagues on-site from whom we can learn and collaborate.

Several years ago as part of an action research project the school set out to develop an appropriate curriculum and assessment process which was in line with the existing pedagogy. The aim was to meet the children at the point of their learning, support them to make real progress, and help them to do the things they wanted to do and that motivated them. The research started in the pre-school and primary department where the Early Years Foundation Stage Statutory Framework was followed and it was then extended to the other departments in the school.

## WHAT IS PEDAGOGY IN THIS CONTEXT?

If we are to consider pedagogy within this area of education, it is important that we define what we are talking about. Pedagogy is a major concept in education that has been defined, understood and used in many different ways in the literature (Loughran 2013). The author subscribes to the belief that pedagogy and curriculum are interconnected and that pedagogy is embedded in teaching and learning (Loughran 2013). Some proponents of inclusion imply that there is a commonality in the strategies used by *all* teachers to teach *all* children (Norwich 2000). Davis and Florian (2004) concluded that the discussion of a separate pedagogy was unnecessary. However, Imray and Hinchcliffe (2014) argue that there is specific knowledge strategies and techniques which are required to teach those children with severe or profound and multiple learning difficulties. The author would go further and suggest that those children who have severe physical disabilities, who do not have a learning difficulty but find it harder to learn due to their physical difficulties or their lack of verbal language, also require teachers who have specialist pedagogic strategies. Clearly, if a teacher is to teach reading to a child who is non-verbal and has a severe physical disability, they will need a 'pedagogic tool kit' to do so. If a teacher is to teach a child with profound and multiple learning difficulties to indicate a positive or negative they need to know how. In many cases unlike children without disabilities, the latter group are being taught to be curious and explore, to have control over their environment and to have a voice. Teachers look for ways to mitigate the difficulties the child has by creative presentation of learning experiences. Lewis and Norwich (2000) suggest this is less about pedagogical practice and more about the teacher's knowledge of the individual child. They later conceptualise teaching in this field as the interaction of teachers' knowledge, curriculum and pedagogical strategies Norwich and Lewis (2007).

## LEARNING THEORIES

There are elements of several learning theories evident in special education pedagogy. For those learning at the earliest levels we can see a small part of behaviourism which includes repetition and reward, however the notion that the teacher is in control does not work for those children for who are not always aware of others, and who have no control of most aspects of their lives. They are learning to do anything which gives them control. Liberationism puts the child firmly in the centre of the learning and with today's focus on personalised learning in special education it suits this style of education, however major support is needed too. It also suggests that teachers are a guide by the side rather than a sage on stage (King

1993). We are encouraging active participants rather than passive recipients of learning. Constructivism is probably the best fit as all learning is based on making connections to prior knowledge with teachers acting as facilitators. However, there is still a debate in the field of education as to which is the most appropriate behaviourism or constructivism. This author suggests that elements of several learning theories are needed and that when these theories were devised, these children would not have been considered.

Theories of cognitive development include Piaget who suggested that a child constructs their understanding as a consequence of their active experiences with the outside world and Vygotsky whose 'zone of proximal development' which is defined as the space between what a learner can do without assistance and what they can do with a skilled partner, as well as the importance of play. Goswami (2008) suggests that whilst taking into account the theories of Piaget and Vygotsky it is also important to acknowledge that modern understanding of how the brain changes and cognition develops, has suggested that whilst some of the ideas put forward are now borne out by new insights, many can be disregarded. Instead Goswami (2008) suggests that neuroscience and neuroimaging are changing our understanding of how cognitive gains are made. Carpenter (2015) suggests that the future of teaching of this nature will involve collaboration with neuroscience, he also suggests that the new generation of research is practitioner led. Both of these are espoused by the author.

To satisfy Ofsted (Office for Standards in Education) in the United Kingdom, and the Governors of the school in question, whilst also meeting the real and diverse learning needs of the students, it was clear that being creative was the only option, and daring to be different and exploring flexibility in the curriculum the only solution (Norwich and Gray 2007). It was also imperative that the curriculum met and was interlinked with the pedagogy needed for this group of students.

## **WHAT NEEDED TO BE TAKEN INTO ACCOUNT BEFORE DEVISING THE CURRICULUM?**

The first pedagogical question is how do we support learning by enabling children to participate in their learning and be active learners.

- They need to learn how to learn and that they have an impact on the world. Children with such complex needs can develop 'learned helplessness' (Miller and Seligman 1975) in which it is so difficult for them to make themselves 'heard' that they give up.
- Each one will have different needs and difficulties, and strategies, and teaching methods need to reflect this, teachers will need to develop their skills to do

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this. There is a strong agreement that the quality of teaching is directly related to the quality of education (Barber and Mourshed 2007).

- Because of their complex medical, physical and sensory needs they will need to do things their mainstream peers do not have to do, such as physiotherapy, occupational therapy, speech and language therapy, numerous medical appointments, operations and interventions and have equipment adjusted.
- Things take longer, it may take them half an hour to be taken to the toilet or an hour to eat their lunch.
- Some have conditions which make it harder to learn and to retain that learning, especially if the structure of their brain is different (Carpenter et al 2015)
- As having a physical disability or conditions such as dystonia mean everything they do is physically tiring they may need to sleep during the day.
- They may become ill more often, have more hospital admissions and have unpleasant medical procedures which can impact on their emotional well-being.

Therefore these key points underpin the pedagogy:

- They should be supported to explore their environment and taught in a responsive environment (Ware 2003). They are more likely to become communicative if they: are listened to and their attempts to communicate are acknowledged and responded to and they are treated as communicative.
- The need to be active participants in their learning both physically and by developing control
- They require special equipment to be able to do the things other children take for granted walking, standing, biking, sitting, using a computer or toy.
- Strategies to support them should take into account their visual, auditory, physical and medical needs. Medicines should be taken into account, as side effects can have an impact on many things including concentration and engagement.
- The majority of these children will have been in hospital for long periods and had uncomfortable, sometimes painful experiences which can lead to fear and withdrawal. The first step then, would be to draw them out.
- Healthy attachments – young people with severe physical difficulties and complex medical issues need to develop healthy attachments so that they can feel safe and secure. Caring for a child who is total dependent and may have to have uncomfortable medical procedures is a huge responsibility and should be seen as such.
- Teachers have to understand the strategies and teaching methods which can be employed to support learning (Davis and Florian 2004). Mentoring and collaboration underpins this (Lacey 2007).

- Time is a precious resource and for children who need to do things which their mainstream peers do not need to do, it is important that what they learn is essential, interesting or motivating.
- For those who find learning challenging repetition, a slow pace and routine are key.
- For those who find it tiring and need to sleep during the day, this is accommodated within school.
- For those who take longer to use the toilet, eat or to do other, day to day things, these are incorporated into their targets for a 24 hour learning programme. Therefore there is no 'rush' to return to the classroom to continue with the 'learning'. It can happen in the toilet or anywhere else the child is. Everything should be used as a learning experience.
- The monitoring of pain and discomfort – it is important that children feel safe, comfortable and ready to learn.
- Quality of Life – Alongside the fact that medical interventions are supporting children to live longer, there are some children who have life-limiting conditions. This means that the priorities of the parents of some of the children will be different. When asked about their aspirations often parents are glad that their children can come to school, have fun and have peers with whom they can interact and play. In these cases the main priority of their education is not to make 'academic progress'. Equally for some who have degenerative conditions they may not make progress at all or may even move backwards in their learning. The priority for these children is comfort and support.

After trying and failing to fit all students under the umbrella of one curriculum, then exploring the possibility of having several curricula running at the same time. It was decided that rather than focussing on developing a pathway along which all children would move, or a set of pathways that would work for homogenous groups, with complicated bridging techniques between pathways, we would need to change our paradigm. Instead of trying to fit all of the pupils into one curriculum we would make the curriculum fit them. An iterative action research approach was followed starting initially with consideration of the design of Individual Pupil Profiles. For this and each subsequent phase, sequences of initial planning, requirements planning, analysis and design then trial implementation, and evaluation of testing followed by modification if necessary and re-trial was carried out by school staff, health professionals, families and learners in all departments in the school.

The individual child and their learning needs, as well as their difficulties would be used to inform 'next steps' in their learning. Personal 'curricula' would be developed around each child and the Child Curriculum was developed.



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We now needed to focus on further principles to inform this. Husband and Pearce (2012) suggest that effective pedagogies build on previous experience and learning. Lacey (2007) when writing about learners with profound and multiple learning difficulties described it as starting where the learner is and not leaving them there. This principle was widened to include all learners within this curriculum. The most important aspect of this is compiling a baseline of where the children are in their learning by using close observation over a period of time. Profiles were developed for each area of learning.

When a child joins the school these profiles are populated with all the information we have about the child. This includes any reports written by professionals around the child, the parents views and observations. As the child develops observations are made which continue to inform the profile. The following areas were chosen for several reasons; They cover the areas in the education and health care plans (EHCP) and encompass the domains of child development previously thought of as separate and distinct which have now been shown as closely intertwined Goswami (2008). Its design is intentionally holistic or 'broad and balanced' as well as personal.

Each profile is written in the first person as they are about that particular child – I can... I am learning to.... and includes long term outcomes as well as 'next steps'. The acronym STEP stands for **S**pecific, **T**iny, **E**merging and **P**ersonal. There is deliberately no bank or database of steps as they needed to be constructed with thought and understanding of that child. When composing them teachers need to be able to explain why they have chosen them. Each of the 'next steps' on each profile are pulled together into a 'My Next Steps' document so they can be used in class as a reference.

### THE PROFILES

**An engagement and sensory support profile** – this includes sensory information, postural needs, mobility difficulties and medical issues which may impact on learning. It also includes their current level of engagement and concentration. Attention and engagement is the most important predictor of successful learning outcomes for a child (Iovanne et al 2003). Although written about children with autistic spectrum disorder (ASD) the author and others have also used this in connection with children with other disabilities. Sensory information is included as not only does it inform practice and mean that staff are not expecting children to do something they cannot do, but also because the stimulation of these senses can improve them.

**A communication profile** – Communication is a right (Goldbart and Ware 2005) this profile details how the child communicates, what they use and activities



to support and encourage its development. The school is a 'responsive environment' (Ware 2003) in which all communication is acknowledged and responded to. When it is difficult to communicate it is important that communication is honoured or the child will develop learned helplessness and give up (Miller and Seligman 1975).

'Communication with people with the most complex needs is most successful with familiar, Responsive partners who they are most familiar with'  
(Goldbart and Caton, 2010 pg.1)

Therefore the children are supported by staff who know them well and with whom the child develops a relationship. Some children are learning to indicate a positive or negative, others are using complex communication books either using auditory or visual methods or VOCA's (Voice Output Communication Aids) which can be used with a touchscreen, switches or eye gaze technology. The use of symbols is carefully monitored as there is an over reliance on them in some special schools (Lacey 2007). Joanna Grace describes the support of communication with children with complex needs best when she says it is not about a child's ability to learn how to communicate but about our ability to listen and observe. This could be considered a good template for teaching in all areas. It is not simply about the child's ability to learn but about our ability to teach in whatever way works.

**A social and emotional well-being profile** – this includes how the child shows emotions as children with neurological deficits can show atypical pain behaviour (Hadden and Baeyer 2002). There is very little research which focusses specifically on the wellbeing of this group (Schuller & Watson, 2009). Rates of mental illness are considerably higher for those with all learning difficulties than in the general population (Holt and Hardy, 2005) but little is known about how to support them and many of the suggested techniques do not work for this cohort as they require the ability to use language. Currently, all we can do is get to know these children as well as we can, so that a change of behaviour becomes obvious to us. We can also enable real participation and support them to be as active and independent as possible and to do the things they want to do whilst treating them with respect and dignity.

**An Access Technology Profile** – this details how the child uses switches, joysticks, touchscreen or eye gaze technology (computers which use the eyes to move the mouse). Technological advances mean that children who have limited movement can access computers, toys and environmental aids. This latter group includes hairdryers, fans, and other supportive equipment. The term access technology was used instead of assistive technology which is often used as it gives

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the children the access to do it themselves. This is also an under researched area of special education, it has however been explored from the point of view of the paediatric therapists and consultants (Cowan and Khan 2005).

**A powered driving profile** – Every child is supported to use a powered platform or powered chair, not just the children who will become independent drivers. Self-initiated movement is a powerful cause and effect activity (Bertenthal and Campos 1984). It is through motor skills that children learn about the world and become initiators and active participants rather than passive recipients of experience (Kermoian 1998). Furumasu, Guerette and Tefft (2004) argue that children need to have reached a level of cognitive ability or have acquired a set of prerequisite skills to access powered mobility. However Hardy (2004) argues that developmental achievements occur as a consequence of mobility. Many of the agencies who provide money for powered wheelchairs will only do so if it can be shown that the child will become an independent driver (Kuhn, Guerra-Bowlby and Deutsch 2007). We cannot show that they would be able to drive without practice, but they cannot have practice without a powered wheelchair.

**A physical profile** – although all the young people have a severe physical disability, exercise is a high priority and every child does at least one physical exercise a day. This does not include passive movements, it is important that it is participatory. Children with physical disabilities will need special equipment to be able to do the activities their peers do. Walkers, adapted trikes and powered wheelchairs to develop their independence. The physiotherapist supports the setting up of a physical programme which includes swimming, riding, rebound therapy, triking (on adapted trikes) and walking in walkers or helping hand slings. However, this continues without the need for the physiotherapist to be there. This improves physical health but also improves engagement, as Ploughman (2008) suggests physical exercise improves cognition for those pupils with physical disabilities. Blakemore and Frith (2005) suggest that physical exercise increases chemical changes in the brain which encourage learning, have a positive effect on mood and motivation. Ware (2003) also suggests that the child should be fully involved in everything they do, including physical activity.

**A functional skills profile** – as the theme enabling control and independence continues. Each child is encouraged to be involved in their own care as much as possible. This may include learning to use the toilet or dressing or feeding themselves, if they are able to eat. This may also include eye pointing to the spoon to let their helper know that they want the next spoonful of food or using a positive vocalisation to indicate that they are ready to be hoisted. Specialist education assistants are encouraged to support the child to have control as much as possible and direct their own care.

**A specific learning profile** – not all children will have one of these as they have not yet reached the stage of learning abstract concepts. This includes elements of literacy, numeracy, science and PSHE as appropriate for that pupil.

Each profile, details a baseline of previous attainment as well as how to support their learning, for example how to set up switches for optimum access. It also details difficulties they may have and next steps for that learning area. Profiles and next steps in learning are developed in consultation with speech and language therapists, occupational therapists and physiotherapists. It also uses individual education and health care plans (EHCPs) as well as parental information. For quality assurance, and for information, school specialist teachers review the profiles, each set of draft learner profiles is also read and evaluated by the head teacher. Ongoing amendment and updating of profiles and targets is vital with communication between teaching teams and therapists a regular occurrence, with parents consulted as and when appropriate.

Assessment became ipsative, narrative and qualitative, from the Latin word *ipse* meaning of the self. Comparing the student with their past performance and about how much progress they have made, rather than comparing them with a statistical norm (Armstrong 2017). Imray and Hinchcliffe (2014) suggest that comparing students with severe or profound and multiple learning difficulties with each other is like comparing apples with oranges. Both equally good but different. I would also argue that those children with a severe physical disability but good cognitive ability should also only be compared with their starting point. What criteria could we use to compare children with such diverse needs? The other question is ‘why’ do we need to compare them at all? If they are making good progress from their starting point, what is the purpose of comparison? Ofsted now accept this, and inspectors will not compare SEND (special needs and disability) pupils to each other, even when they have similar starting points. What they will look for is evidence that schools are ambitious when it comes to the progress of their students, that they are getting quality education and making progress. It will also evaluate evidence that the curriculum is adapted to meet the needs of all, that outcomes are improved and parents are involved (Ofsted 2019). There is no expectation that a certain number of ‘steps’ are written or completed, everything is at the child’s pace but with ambitious expectations.

Annual reviews are positive, discussing what the child can do now that they could not do the year before, if they cannot do that, which is rare, they focus on the amazing experiences that child has had. It is clear where they have made progress but there is no quantitative data.

Many senior leadership teams in special education still believe that they have to teach and assess their pupils using the National Curriculum. The team at the school have attended numerous conferences where we have encountered shock

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and disbelief when we explain that they no longer need to do this. For a child who is unable to indicate a positive response, that surely is the priority, not that they learn about the Romans. Especially as for those with a profound and multiple learning difficulty abstract concepts are almost impossible to grasp (Lacey 2007). With the majority of children in special education working below National Curriculum levels this, leads to teachers using a curricula which does not meet the children at their point of learning (Imray and Hinchcliffe 2014).

### **TEACHING IN THE CLASSROOM**

The school is divided into three departments, roughly divided by age, a nursery and primary phase, a middle phase and an older phase. Each class has six to eight children and each child has a specialist education assistant who is trained to manage their medical and day to day needs as well as support their education. Fawcett (2009) notes that every team member will need to be knowledgeable about children's thinking and their progress and describes observation as tuning into children.

The teacher directs the learning as well as teaching. They are considered facilitators rather than didactic imparters of knowledge. A guide by the side, rather than a sage on the stage (King 1993). Unlike most mainstream schools, the children have so little control over their lives that they are even encouraged to shout out or vocalise to get attention. They are also encouraged to choose what they do or do not want to do.

A topic or theme is used to 'hang' the learning on in order to make it fun for both adults and children. These include the circus, jungle, the seaside and amongst others.

With a pedagogy and curriculum so focused on individual progress and quality of teaching it is vital that the quality of teaching is excellent. Where teaching impacts learning and learning informs teaching. Teachers are encouraged to discuss pedagogy with colleagues to collaborate on ideas and research. To seek out support from more experienced teachers to develop their own areas of interest and are supported to continue with their professional development. This includes keeping up to date with current research, taking further qualifications, developing expertise and collaborating on further research projects. If a teacher has a child with a particular condition they will often become an expert in that condition, or if they have a child with cochlear implants they will have learned strategies they can pass onto other teachers. If they have taken a qualification in a certain subject they become a support. There are teachers who are experts in MSI (multi-sensory impairments) SPMLD (severe and Profound and Multiple

Learning Difficulties) as well as Specific Learning (elements of literacy, numeracy PSHE and science). There are others who have a deep knowledge PSHE (Personal, Social and Health Education) and those who have a good understanding of certain communications systems, eye gaze technology or software. It would be impossible for teachers to have an understanding of every area of special needs pedagogy so instead it is a collaboration. Learner progress interviews are conducted with each teacher by the head teacher and external school improvement consultant once a year. Teachers are expected to know all the children in their class well and know exactly where they are in their learning as well as being able to explain what interventions they have tried. Teachers also have a professional development log and reflective journal. It would be useful to note here, that there is no requirement for teachers to do any special training to become special education teachers. Teachers can work in a special school with no prior qualification or even experience in some cases.

## CONCLUSION

To teach children with a physical disability, sensory needs, complex medical conditions and a range of cognitive levels requires a skilled practitioner. The teachers need to know their pupils well, know what difficulties the children are managing and most of all know what strategies to use to mitigate the impact of the child's challenges. Teacher mentoring and collaboration as well as research are a large part of this.

Some argue that the idea of a different pedagogy is not helpful and that sound practices in teaching and learning in both mainstream and special education are often informed by the same basic research and informed by similar teaching strategies (Florian 2004). However, I would argue that if we value the teaching of children with disabilities, it deserves to be researched in its own right by practitioners themselves.

Having designed what we consider an appropriate curriculum for this particular group of children, using theory to inform it, and Ofsted used to judge the school outstanding in 2019, the author is now charged with conducting another action research that will evaluate its impact and suggest further improvements. It will consider this from the perspective of stakeholders in the process. There has arguably been a lack of research into the education of pupils with profound and multiple learning difficulties (Ware, 2017) and virtually nothing on the education of those who are non-verbal, have physical disabilities and complex medical problems but good cognitive abilities. Schools are now developing personal curricula across the country and in the next few years these will also be evaluated. Before the pendulum swings in the other direction, or things change, as so often

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happens in education, it would be good to know what impact this has had and how it could be improved.

As we can see from the history of this area of teaching, it has come a long way in a short time suggesting that it will continue to evolve and change, therefore we must continue to evolve and change with it. Indeed, we can shape that change and improve it for our students.

### REFERENCES

- Alexander, R. J. (2000) *Culture and pedagogy: International comparisons in primary education*. Oxford, Blackwell.
- Alexander, R. (2004) *Still No Pedagogy? Principle, pragmatism and compliance in primary education*. Oxford. Blackwell.
- Armstrong, T. (2017) *Multiple Intelligence in the Classroom* (4<sup>th</sup> Ed.) ASCD books. Virginia.
- Barber, M., and Mourshed, M. (2007) *How the Worlds Best Education Systems Come Out on Top*, London and New York, Mckinsey.
- Bertenthal, B., and Campos, J. (1984) *Self-produced locomotion: An organiser of Emotional, cognitive and Social Development in Infancy* in Barrett K., Emde, R., and Harmon R. *Continuities of Development*. New York: Plenum.
- Bovair, K. (1991) *Introduction in The Curriculum Challenge: Access to the National Curriculum for Pupils with Learning Difficulties* Eds. Ashdown, R., Carpenter, B., Bovair, K.
- Byers, R. and Lawson, H., (2015) *Priorities, Products and Process: Developments in providing a curriculum for learners with SLD/PMLD in Lacey*. P., Ashdown, R., Jones., P., Lawson, H., Pipe, M. (Eds) *The Routledge Companion to Severe, Profound and Multiple Learning Difficulties*, Oxon. Routledge. Pages 38-47.
- Blakemore, S.J., and Frith, U. (2005) *The Learning Brain: Lessons for Education*, Australia. Blackwell.
- Carpenter, B. (2007) 'Changing Children – Changing Schools? Concerns for the Future of teacher training in special education', *PMLD Link* Vol 19 No.2.
- Carpenter, B. (2010) *Curriculum reconciliation and children with complex learning difficulties and disabilities*, London: SSAT.
- Carpenter, B., Egerton, J., Brooks, T., Cockbill., Fotheringham, J. and Rawson, H. (2011) *The complex Learning Difficulties and Disabilities Research Project: Developing meaningful pathways to personalised learning* (project report). London Specialist Schools and Academies Trust.
- Carpenter, B. and Egerton. J (2013) *the impact of prematurity on special educational needs* Optimus Education (SEN Hub). [Online at <http://www.optimus-education.com/impact-special-educational-needs>; accessed 16/02/21]

- Capenter, B., Egerton, J., Cockbill, B., Bloom, T., Fotheringham, J., Rawson, H., Thistelwaite, J. (2015) *Engaging Learners with Complex Learning Difficulties and Difficulties: A resource book for Teachers and Teaching Assistants*; Routledge. London.
- Cowan, D.M., and Khan, Y. (2005) *Assistive Technology for Children with Complex Disabilities in Current Paediatrics* Vol 15 No. 3 Pgs. 207-212.
- Corbett, J., and Norwich, B. (2005) 'The problem and Potential of Pedagogy' in Nind, M., Rix., J., Sheehy, K., and Simmons, K. (Eds) *Curriculum and Pedagogy in Inclusive Education: Values into Practice*, Oxon, Routledge
- Doukas, T., Ferguson, A., Fullerton., M. and Grace., J. *Supporting people with Profound and Multiple Learning Disabilities: Core Essential Service Standards*.
- Florian., L (2004) *The Sage Handbook of Special Education*
- Furumasu, J., Guerette, P., and Tefft, D. (2004) *Relevance of the Paediatric Powered Wheelchair Screening Test for Children with Cerebral Palsy. Developmental Medicine and Child Neurology* 46: Pg. 468-474.
- Goldbart, J., and Ware, J. (2005) *Communication*, in Lacey, P., Ashdown, R., Jones., P., Lawson, H., Pipe, M. (Eds) *The Routledge Companion to Severe, Profound and Multiple Learning Difficulties*, Oxon. Routledge. Pgs 258-270.
- Goswami, U. (2004) 'Neuroscience, education and special education,' *British Journal of Special Education*, 31 (4), 175– 183.
- Goswami, U. (2008) *Cognitive Development: The Learning Brain*. Psychology Press. Hove.
- Grace, J. [no date] *The Sensory Project*. Online
- Hadden, K.L., and Von Baeyer, C., L. (2002) *Pain in children with Cerebral Palsy: Common Triggers and Expressive Behaviours*. *Pain: The Journal for the International Association for the Study of Pain* Vol 99 No.1 Pg 281-288
- Holt, G., Hardy, S., & Bouras, N. (Eds.). (2011). *Mental Health in Learning Disabilities: A Reader*. Pavilion.
- Husbands, C., and Pearce, J., (2012) *What makes a great pedagogy? Nine Claims from Research*, National College of School Leadership. Schools and Academies
- Iovanne, R., Dunlap, G., Huber, H. and Kincaid, D. (2003) *Effective Educational Practices with Autism Spectrum Disorders, Focus on Autism and Other Developmental Disabilities* Vol 18 No. 3 pgs. 150-165
- Imray, P. (2007) *Training and PMLD Training and PMLD*, *PMLD Link* Vol 19 No.2 Issue 57
- Kermoian, R. (1998) *Locomotive experience facilitates psychological functioning: Implications for assistive mobility for young children*. In Gray, D. Quatrano, L., and Lieberman (Eds.) *Designing and Using Assistive Technology: The Human Perspective*. Baltimore. Brookes.



THE PEDAGOGY WHICH UNDERPINS A PERSONAL CURRICULUM  
FOR PUPILS WITH SEVERE PHYSICAL DISABILITIES

- King, A. (1993) Sage on the Stage to Guide by the Side. *College Teaching* v41 no.1 pg30-35.
- Lacey, P. (2007) Start Where the Learner Is: Coaching for a Better Quality of Life, *PMLD Link* Vol 19 No.2 Issue 57
- Lacey, P., Brown, J., Holmes, F., Burnford, H., Jones, K., and Jones, R. (2015) Joint working for learners with SLD/PMLD in Lacey, P., Ashdown, R., Jones., P., Lawson, H., Pipe, M. (Eds) *The Routledge Companion to Severe, Profound and Multiple Learning Difficulties*, Oxon. Routledge. Pgs. 69-79
- Lewis, A., and Norwich, B. (2000) Is there a distinct special educational needs pedagogy?' in *Teaching for Special Educational Needs*. Tamworth: NASEN
- Miller, W.R., and Seligman, M.E.P., (1975) 'Depression and Learned Helplessness in Man' *Journal of Abnormal Psychology*, Vol 84, No. 3, Pages. 228-238
- Norwich, B., and Lewis, A. Eds (2005) *Special Teaching for Special Children? Pedagogies for Inclusion*, Maidenhead. Open University press
- Norwich, B. and Lewis, A. (2007) How specialised is teaching children with disabilities and difficulties.
- Norwich, B. and Gray, P. (2007) *Special Schools in the new era: Conceptual and strategic perspectives*, in Norwich, B (Ed.) *Special Schools in the New Era: how do we go beyond generalities?* Policy Paper 2, SEN Policy Options Group 6<sup>th</sup> Series, Tamworth. NASEN.
- Norwich, B. (2008) *Dilemmas of Difference, Inclusion and Disability: International Perspectives and Future Directions*. London. Routledge
- Ofsted (2019) *School Inspection Handbook*: London, DfE.
- Ploughman, M. (2008) Exercise is Brain Food: 'The effects of physical activity on cognitive function' *Developmental Neurorehabilitation*, Vol 11, no.3
- Schuller, T. & Watson, D. (2009) *Learning Through Life*. Leicester: NIACE.
- Stewart, D.S., (2015) 'A historical reflection on Education for Learners with SLD/PMLD: 1800-1970' in Lacey, P., Ashdown, R., Jones., P., Lawson, H., Pipe, M. (Eds) *The Routledge Companion to Severe, Profound and Multiple Learning Difficulties*, Oxon. Routledge. Pages 29-37.
- The Education (Handicapped Children) Act (1970) [Online] Accessed February 2021
- The Children and Families Act (2014). HMSO
- Department for Education (2014) *The National Curriculum in England: Complete framework for Key Stages 1 to 4*. Available at <https://www.gov.uk/government/publications/national-curriculum-in-england-framework-for-key-stages-1-4> Accessed 2<sup>nd</sup> January 2020
- United Nations (1948) *Universal Declaration of Human Rights*. New York. United Nations

- Ware, J. (2017, Sept), *Assessment for learners with PMLD*. Paper presented at BERA Annual Conference, Brighton.
- Warnock, M., Norwich, B., and Terzi, L. (2010) *Special Educational Needs: A New Look*. London: Continuum.
- Watson., N and Vehmas., (2020) *The Routledge Book of Disability Studies*
- Warnock, M. (1978) *Special Educational Needs: Report of the committee of Enquiry into the Education of Handicapped Children and Young People*. London: HMSO.