A deeper look at what underpins our pedagogy at Linden Lodge

Translating Learning Theory into Sensory Impairment Pedagogy

One of the big barriers for teachers new to sensory impairment (SI) is the need to adopt new teaching strategies in response to the idiosyncratic learning styles of children and young people with these complex disabilities of learning styles and lesson set up (Kamei-Hannan et al, 2019, Norwich et al, 2010). The potential for pupils with SI to learn new things incidentally via use of the near and distance senses is extremely inhibited. Children usually develop concepts about new things by assimilating what they can see, hear and feel when interacting with new stimuli. For pupils with reduced senses of vision, hearing and touch, the opportunity to build a properly comprehensive understanding of anything new is far more reduced than for children without such complex disabilities,

The lack of incidental learning and the range of different teaching approaches new teachers must consider can feel both overwhelming and intimidating (Argyropoulos et al 2016, Boyle et al, 2016). As highlighted through the Rochford Review and many

other DfE documents there is a shortage of training in SEN for new teachers in SEN. There is an assumption that teachers must simply adapt what they already know and learn on the job. This paper outlines how learning theory for pupils with SI can be interpreted in order to improve teaching and learning. The focus on what is outlined is upon the process of learning, as opposed to concentrating on learning outcomes.

The aims of this paper are:

To assist teachers to better understand the reasons why pupils with SI learners interact and learn in different ways to the majority of other learners

To help teachers reflect upon and interpret the impact of their teaching on the learning of pupils with SI and personalise their teaching strategies to promote better pupil engagement in the learning process

To inspire teachers to think more holistically about how the teaching environment can be modified to make sure it is as empathetic as possible to the personal nuances of these complex learners. It is our intention to inspire you to consider and think about the way you are working with our young people and understand their journey, their space and their needs.

Perspective on Cognition

This section has been developed on alongside Richard Aird OBE

We often regard knowledge as being something which occurs exclusively in the brain, enabling pupils to think about, understand and remember things – i.e. the process known as cognition
However, cognition does not develop in isolation from other aspects of human function – it depends on things such as:

- Communication and language skills to inform thought processes

- The effective use of the senses (including the use of near and distant senses and the use of sensory integration) with which to gather information

- The application of physical (motor) skills to permit active participation in new learning experiences

- States of emotional wellbeing to facilitate sustained motivation to learn

We believe that cognition and conceptual learning develops through a fully immersive and rich curriculum In which all four areas of need (as described above) are incorporated. Children with sensory impairments have a huge disadvantage when accessing learning and rely upon Teachers to construct the best possible framework within which pupils can be engaged within the learning process, applying existing learning to make more sense of the concept being taught and gradually building their standard of understanding. This approach is often referred to as "scaffolding". Because pupils with SI are severely inhibited in their ability to learn incidentally via their senses, teachers must constantly evaluate how best to engage their pupils in order to promote their depth of understanding about new experiences.

Teaching pupils with SI is absolutely reliant on a teacher's ability to recognise, understand and be empathetic to the idiosyncratic ways in which individual children are able to engage in the learning process. In some literature, this is described as a child's Zone of Proximal Development (ZPD). To be properly responsive to an individual pupil's ZPD, teachers need to utilise reflective and reflexive formative assessment approaches. Once a teacher feels confident about how best to engage a pupil in new learning, the teacher then should construct the "scaffolding" that is necessary for a pupil to make progress towards achieving whatever new concept or skill is going to be taught. When setting learning targets teachers should also consider how s/he can make their teaching as motivational as possible, adapting the curriculum on offer at the school to make it as rich and stimulating as possible. It is important to remember that pupils with SI are first and foremost children who actually like to have fun and have the motivation to participate in new learning. It is sometimes said that a curriculum needs to be "immersive" and for pupils with SI this means that what is being taught is relevant, motivating and sufficiently well scaffolded to ensure that pupils benefit from both the function and meaning of any new item of learning.

We must empower our children towards self-actualisation and immersion within their setting to create meaning and function to their immediate environment and learning experiences.

The context to SI is reflected in the learning environments and implementation strategies which we are using within this curriculum. The classroom methodologies are broken down into individual pedagogical approaches for each pupil, delivering a personalised, meaningful and focused curriculum for all. The intention of the Curriculum is to deliver a meaningful, exciting and purposeful education which directly impacts and reflects upon the development of the students ability to not only participate but to contribute to society in a way which reflects their talents, interests and passions. All of the curriculum feeds into this ultimate goal which is constantly evolved and reflected upon to ensure it continues to be both ambitious and aspirational for the individual student.

We must ensure we don't merely teach to EHCP targets but understand its role and importance in accessing the rich vibrant curriculum we have created with the student at the centre. The targets are both the access route and destination in how we ensure pupils benefit from optimal learning experiences for the student. The themes we utilise in our curriculum are intended to serve as exciting vehicles for pupils to progress towards their individual learning destinations

The role of the EHCP in the classroom must not drive the curriculum but it should set out the way in which individual pupils access the curriculum and what exactly we plan for individual pupils to benefit from as a priority in their education and therapeutic care. The four areas of need, as outlined above, provide a specific focus on how complex disabilities can inhibit, or prohibit, a child's ability to learn new things effectively. For an individual child, the ECHP describes the extent to which s/he is able to function in the skills and concepts inherent within each developmental area of need and it is possible that, through careful target setting, we can improve a child's

abilities in one or more areas of need. However, these EHCP targets should not be regarded as the curriculum, they should provide the scaffolding by which teachers can modify the school's overarching curriculum to:

- Improve a pupil's access to the teaching experiences being provided
- Determine how a pupil can work towards his/her personal developmental targets via differentiating by task and/or outcome

<u>Phenomenology – Experiencing the world and actualising it</u>

The students that come into sensory specialist education all have significant learning needs coupled with sensory impairments. A key issue confronting these vulnerable and complex students is the phenomenon known as "learned helplessness" which can be brought about through a child's inherent lack of understanding about the outside world (the inhibiting impact of SI) combined with a lack of stimulation (Kaufer 2015). Fundamentally, phenomenology examines the structures of conscious experience as experienced from the first-person point of view, while acknowledging the context of the conditions of learning experience (Husserl, 2012). The central structure of an experience is its intention, through the whole of this curriculum this is where our focus is born (Husserl, 2012). The content of the curriculum is structured in this way with a very clear and motivating purpose to have a positive long term impact on the student's ability to live independently.

Regardless of whether new things are experienced by a child primarily via physical interaction, sensory perceptual, thought or emotion, understanding of what has been experienced does not come about in isolation, i.e., however a child might experience something new, there will be a multiplicity of ways in which s/he responds to that new stimulus. A child might experience a new vibrating toy when it is placed in his/her hand, but we hope that s/he will respond in a variety of ways that may include physical, communication and emotional, in addition to a basic kinaesthetic tactile response. This is why it is so important that we carefully observe how a pupil is responding to a new item of learning because it is the quality of a child's holistic response (ie as described above) which provides us with clues as to whether a child is actually beginning to build a meaningful concept about the new item of learning we are seeking to teach.

It is essential that pupils with SI are as actively engaged in the learning process as quickly as possible so that the opportunity for them to acquire meaningful depth of understanding is capitalised on. Pupils need to be able to explore and interact with new learning experiences in as many ways as possible to help promote depth of understanding and a better appreciation of the world around them.

If we teach children how problems are solved we are robbing them of the chance of exploring and experimenting with solutions, helping them develop deep understanding, ownership of what they have learned and more likelihood of being able to apply new learning in different settings. We need to be cautious that we do not "teach to the test" , but instead allow our pupils time and opportunity to engage in lateral thinking, extend their resilience and work as independently as possible, thus avoiding the danger of "learned helplessness". For pupils with SI, the development of

thinking skills and how to express an opinion often rely on how pupils have been prompted to explore the new learning from a holistic perspective

Social Constructivism and Visual Impairment

Children with learning difficulties who have additional SI often have a very underdeveloped sense of self and particularly their relationship with the world surrounding them. Without the benefit of structured timetables which afford pupils the opportunity to anticipate and predict what is going to happen next, pupils with SI can become anxious and withdraw further into their private world. The lack of understanding of the self is a key learning barrier for students with sensory impairments (Argyropoulos et al, 2016, Gindis, 1999), We should organise our teaching in ways that enable a pupil to engage in teaching activities in ways that are predictable and structured - i.e., we should provide pupils with the scaffolding to engage in self-directed learning.

By scaffolding and understanding the unique intricacies of the individual's zone of proximal developments practitioners will become experts in the manipulation and stimulation of these learning zones through nuanced and intricate implementation strategies which build on the known to learn for the future (Daniels, 2018, Dockrell et al, 1997). It is essential that teachers become experts in observing and assessing the unique ways in which individual pupils are motivated and empowered to engage in learning. It is only through the analysis of these observations and formative assessment that teachers can then construct the scaffolding which each pupil requires in order to become an active learner

Achieving meaningful understanding of things which are manifest outside of a SI child's immediate vicinity is profoundly difficult. This is because impairments to the distance senses severely inhibit a child's ability to access a world s/he is unable to touch, taste or smell. Consider how a non-SI child uses his/her vision and hearing to quickly scan the environment and gather basic information and then consider how this can be done by a child with severely impaired vision and hearing. If we wish our pupils to operate outside of their immediate self (i.e. the ZPD) then we must consider how best we can access them to experiences from which they can begin to build concepts, understanding and skills to interact with the world outside of their immediate self. It is so important that our pupils are able to participate and contribute to the world around them, particularly as they begin to mature chronologically. By allowing pupils to acquire concepts and skills sequentially via safe and accessible scaffolding, we are fulfilling the spirit of EHCPs, i.e., preparing our pupils for a rewarding adult life

We are asking our teaching teams to not only be reflective but also reflexive in their work. Practical reflexive work examines the way we develop and personalise our observations and how we act upon what we have learned from these observations (Marsland, 1987). In basic terms we are asking our teams to not only be reflective but to act on this information in the moment, creating an evolving classroom environment in which formative observation of pupil performance is constantly

feeding into our teaching strategies. For more able pupils, the "pupil voice" can be listened to and acted upon via the process of speech, but for the majority of our pupils we need to consider what a pupil's more holistic behaviours are trying to tell us. When this approach is well embedded in classroom practice, optimum teaching environments can be readily organised and the school's overarching curriculum can be modified so that it is bespoke in its design in order to match the nuances of individual learners. When we are working in the classroom we differentiate the curriculum and personalise our teaching approaches to ensure optimal pupil engagement in the learning process

The heterogeneous nature of our classrooms creates an ideal peer relationship base which can help our learners not only flourish educationally but also socially inside the classroom (Lake, 2012, Daneils, 2018). The makeup of our pupils in each class group includes a mix of gender, age and ability. This diversity reflects the real world and is a feature we must consider if our SI pupils are to be socially included.

Schematic Play Development and Visual Impairment

As individual members of society we each have a set of behaviour that are relatively unique to how we function and participate. We gradually refine our behaviours over time in response to different experiences and this generally helps facilitate a reasonable standard of social inclusion. For many of the reasons we have already considered above, pupils with SI do not always have the opportunity or ability to refine their behaviour in order to improve the standard of their social inclusion. The medium of play is usually considered the primary vehicle by which children learn and refine their behaviour so it is a sensible way forward that we consider how we engage our pupils in play.

Schematic play theory is a way of observing, facilitating, and encouraging learning through play. It takes the repetitive play behaviours of children and categorises them into 'schemas' which children are constantly developing through their play as they acquire new knowledge and language. Schematic play theory concurs that these repetitive actions help children to develop thinking skills and, by reproducing the same actions in different environments and in response to different stimuli, children are better able to modify their thinking and generalise their understanding to better sense of the world (Constable, 2013). Babies and young children are often observed engaging in repetitive actions during play, for example dropping items from their highchair, lining toys up or driving cars in circles, and the theory suggests that they use these in actions to learn and develop (Nutbrown, 2011). The pupils at our school will not have had the same access to this world because of their sensory impairments which makes it vital that we are able establish and facilitate these learning opportunities in our classrooms. Students develop ideas and concepts through schematic behaviour which they then use to form the basis of their understanding. Children are experimenting, investigating and developing their generalisation, categorisation and assumption skills. However, vision and hearing are crucial skills for acquiring environmental knowledge. For example, when walking into a room we are able to interpret and translate the setting by the visual and

auditory cues in front of us, we can then modify our behaviours and expectations accordingly. We must try to imagine what this must be like for our sensory impaired pupils and use these insights to inform the scaffolding we design for their participation in the classroom.

Understanding the individual schemas of the children we work with can provide us with insights into why children do the things they do (Grimmer, 2017, Constable, 2013). The schemas these children have developed are essential to the learning that takes place. It is a fundamental truth that the knowledge of schemas can better enable practitioners to teach in ways which are attuned to the structures of individual children's thinking and action, resulting in personalised and evidence based implementation strategies (Nutbrown, 2011).

The use of schema and play in the curriculum will also begin to lessen the role that gender, culture and special educational needs have in affecting the way learning is observed (Athey, 2007). A boy and girl of different social and cultural backgrounds with differing educational and medical needs may both be working on the same schema and, by focusing on the schema, practitioners can begin to shift from looking at what children play with to the more appropriate question of how children play.

Self Determination Theory

This theory focuses on how motivation impacts upon a pupil's behaviour and promotes a love of learning (Ryan et al, 2018). The children that come to are school intensely vulnerable to the development of learned helplessness and its negative impacts on engagement and learning. Having special educational needs alongside a sensory impairment may lead to our children feeling disenfranchised and lacking a sense of agency because of a learned reliance upon adults to engage with the world around them. We need to foster a sense of pupil advocacy so that, as far as possible, pupils are better able to influence things around them (Wade, 2017). If we do not promote our pupils to be as autonomous as possible then it is likely these pupils will experience negative and damaging relationships with the process of learning.

Self-determination and learning autonomy is promoted when pupils feel confident in the things they already know and have the opportunity to build on these achievements in a safe way to extend their learning (Deci et al, 2015). It is vital, therefore, that we are able to carefully baseline the concepts and skills our pupils are competent in and have a well-informed strategy on how we can extend these achievements via teaching activities that benefit from the necessary scaffolding and have a meaningful sequence so that learning is incremental.

The ability of the child to relate to the learning content and build an intrinsically valuable relationship with it is absolutely crucial to the construct of concepts, knowledge and skills. Experiential, holistic and deep learning is key to successful teaching for pupils with SI (Kamei-Hannan, 2017).

The curriculum aim of any school must be to create problem solvers, so we must find the balance between challenge and impossibility. Treading the tightrope that is challenge and engagement requires a deep understanding of the child and the role the EHCP targets have in accessing the curriculum content. We must also work through the lens of the EHCP but not be subsumed by it and end up just teaching targets. The targets, whatever they may be, are learnt and developed through access to a wide and vibrant concept based curriculum. For this to occur the application of self-determination theory is crucial.

Conclusion

We hope you have found this paper useful and that it informs the way you plan your implementation strategies in the classroom while also considering how the child learns and how you can best facilitate this. Think of everything that you can do to enhance the learning opportunities and how this can impact their chances in later life to not only participate but flourish in the sighted world.

Remember to use the termly topics to generalise the knowledge and skills we learn throughout the year. The topics and themes are used to develop and enhance the children's cultural capital and ensure they are given a broad and balanced curriculum which is both engaging and meaningful to every individual

It is crucial to also remember that the EHCP is not the curriculum. Its aims and outcomes are the personal modifications to the lessons you need to apply to enable students to access the most challenging ambitious curriculum possible

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