

# Verity Langlands



Audiology Assessment for Children and Young Adults with Complex Needs; The journey to a bespoke audiology suite.

Seashell is a national charity providing education, health and care for children and young adults with complex learning and communication difficulties and/or disabilities including autism, deaf/blindness, multisensory impairments, hearing, visual impairment, complex physical disabilities and/or additional medical needs. Seashell operates Royal School Manchester, Royal College Manchester, Residential Homes, Health, Outreach & Family Services.

Seashell Health teams work to facilitate healthcare with the needs of the individual at the forefront of decisions. The audiology team have long been exploring innovative assessment techniques and rehabilitation approaches which offer flexibility, and support students to access audiological care. Amongst the considerations, we support behaviours that challenge and physical disabilities both of which require environmental considerations and adaptations; the service is supported by appropriate clinical protocols and flexible pathways and we have been able to provide students' NHS service's with important clinical information which could otherwise be obtained.

#### **New School Build**

Audiology access for children, young adults with complex needs, intellectual disabilities, Autism and ADHD has been widely considered within NHS departments in recent years. NHS England are currently leading an agenda to close the inequality gap for children and young adults in special residential schools accessing hearing checks; audiology services across the country are making progressive steps and amendments to their services to support children, young adults and adults with complex needs.

The opportunity arose for a bespoke audiology suite to be built as part of a wider special school new build, and by showcasing this journey we hope to inspire and demonstrate the facilitation of an inclusive audiology service.

The journey of the design of this suite demonstrates considerations, challenges and collaborative working with the child/young person at the centre of the decisions.

# **Considerations & Challenges**

Clinical appointments for children and young adults with complex needs/autism/ADHD host a number of challenges, ranging from transportation to clinical settings, waiting areas, staffing, inflexible clinical approaches and unsuitable pathways and protocols. When designing this bespoke audiology suite we were able to use our specialist knowledge and work with a rich trans-disciplinary design team to create an inclusive setting.

## Considerations

The purpose of the build was to create an audiology paediatric booth specifically designed to assess and manage hearing for children and young adults with complex needs. When discussing the challenges we consider those with:

- Visual Impairment/Multi Sensory Impairment (MSI)
- Physical Disabilities
- Autism
- Behaviours that challenge
- Barriers in communication
- Anxiety/Fear of examination

#### Challenges

• Initially we were given with some key requirements to establish a solid foundation to the project:

We were also able to demonstrate a trans-disciplinary approach across the necessary companies and professionals involved when building an audiology suite.

### Collaboration

We invited specialist companies and representatives to come onsite and observe audiology sessions to understand the challenges, considerations and needs of the project.

In these initial meetings we sought consultation from professionals including Shaun Moore (IAC audiology test room design) to ensure the location for the booth was optimal within the school designs; including considerations of acoustic noise and electrical interference in surrounding constructions (particularly due to the extensive specialist equipment and rooms designed into the overall build) as well as ensuring space and ceiling height allowed for the soundproof booth to be installed effectively.

We also engaged with Mike Anderton (TLC for Schools) to start discussions about the project. TLC specialise in bespoke multi-sensory environments. Along with Natus (Audiology clinical equipment), and the project transformation lead Seashell, the trans-disciplinary team met frequently and each redesign was talked through in detail to understand the requirements of the various industry; to ensure the work pulled together to fit the purpose.

- Finding a team who will work creatively and collaboratively for a shared goal.
- To work with innovation whilst ensuring the booth remains fit for purpose and in keeping with regulations of an audiology test room.
- Working to a specific space within a school (considering fire regulations etc.)
- The bringing together of expertise from complex needs specialist services and audiology specific equipment.

#### **Features of the Audiology Clinic Suite**

We made decisions with the specific cohort of students at Seashell in mind; what their needs are to be able to access an audiology clinic space and service.

### MSI

- Using textured surfaces to enable student to recognise and map their environment through touch.
- VRA rewards to suit variety of visual impairments

#### **Physical Disabilities**

- Ensuring the turning cycles are suitable for the most robust wheelchairs
- Having various seating options available to suit the needs of the individual
- Having VRA reward choice to suit physical limitations such as head turning

#### Additional measures to ensure safety

- Soft furnishings
- Removing toy towers, and replacing them with individual and removable VRA rewards.
- Ability to empty the room

With each meeting the collective looked through the plans for every aspect of the room, each profession put forward their ideas and challenges; collective decisions were made with the needs of the students being prioritised throughout the process.

#### **Optimising engagement/Encouraging participation**

Colourwash and mood lighting

• Vibro-chair

# Watch this space:

We are working towards contributing data nationally, to inform peer reviewing & assessment for complex cases.

We aim to showcase our solutions for 'difficult to test' scenarios.

We are evidencing our work in articles and presentations nationally and internationally.

"From the very outset Seashell's Audiology & Transformation team engaged with IAC Acoustics to create a groundbreaking clinical testing environment for children and young adults with complex learning difficulties. Whilst all Paediatric audiology facilities are individually tailor-made to suit the client brief, the scheme for Seashell was exceptionally bespoke due to the complex needs of the students and requirement to address environmental and clinical testing challenges. Personally, from an IAC perspective, the final outcome is a result of what can only be described as "Collaborative Teamwork" by all parties involved, including Matt McCormack from Natus, Mike Anderton from TLC For Schools, and Seashell's Principal Audiologist Verity Langlands and the Transformation Project Design Lead David Walker. It goes without saying that the facility for Seashell will not only be bespoke, but will be the first of its kind with functional capabilities and unique testing environment for children and young adults with complex needs". Shaun Moore (IAC), Sales Director & Project Consultant.

> Special Thanks. To Shaun Moore, David Walker, Mike Anderton & Matt McCormack