

SEATING & POSITIONING BASICS

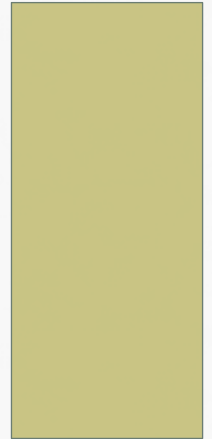
BUT ISN'T THE OT ROLE MORE THAN THAT?.....

PATRICIA TERRER-PEREZ [DIRECTOR OTS4SCHOOLS,
ROYAL FREE LONDON NHS FOUNDATION TRUST]

&

MICHELLE WATSON [VISTA THERAPY,
OTS4SCHOOLS]

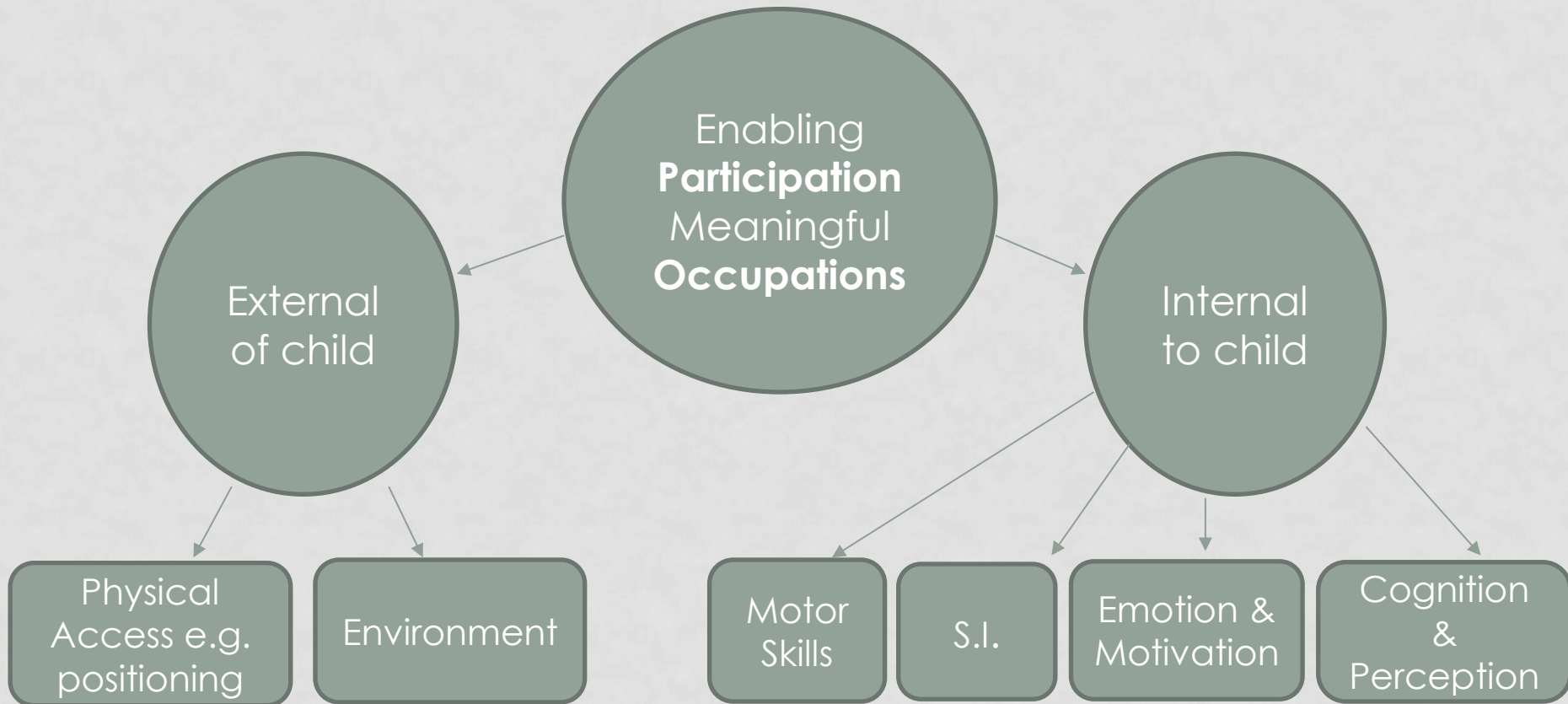
CLINICAL SPECIALIST OCCUPATIONAL THERAPISTS



WHAT IS THE ROLE OF THE OCCUPATIONAL THERAPIST IN AAC ?



WHAT IS THE ROLE OF THE OCCUPATIONAL THERAPIST IN AAC ?



COMMON MISCONCEPTIONS: WHAT THE ROLE OF THE OT IS

NOT:

“We do switching on Fridays...”

“He’s been practicing on the eye-gaze computer and he’s doing really well”

“We just use the iPad at ‘reward times’...”

“I only call the OT when I don’t know how to adjust the wheelchair or mount the device”

“An OT doesn’t have a role in AAC Ax do they?...its all to do with communication and that’s a SLT’s job!”

Intervention **MUST** be **FUNCTIONAL**

Health Condition

Body Functions and Structures

- Orientation to Self
- Mental Functions
- Sensory Functions
- Voice and Speech Functions
- Movement Related Functions

Activities

- Watching, listening, being alert
- Communication (Receptive and Expressive language skills)
- Reading and writing
- Learning and applying knowledge
- Pragmatic skills
- Initiating interactions
- Play and leisure
- Mobility
- PADL / IADL

Participation

- Interaction with family, significant others, extended family and society
- Participation in actual situations and daily tasks /routines
- Wider participation in community activities and society

AAC System Characteristics

Cognitive demands Visual demands
Vocabulary selection and options Auditory demands
Strategies Motor demands

Environmental Factors

- Availability of AAC system
- Personal support and personal relationships
- Services and support, training
- Physical environment / other equipment
- Attitudes towards assistive communication device

Personal Factors

- Gender, age, habits, routines
- Motivation and interests
- Acceptance of AAC system

(Adapted from Zachrisson et al 2002)

MOTOR SKILLS / PHYSICAL ASSESSMENT

Access Point

There is no agreed, evidence based 'hierarchy' of body parts for access, but you should start with options that are more natural, direct and cognitively transparent.

Every child, regardless of diagnosis is different.

Consider physical abilities, impact of posture and seating and the environment.

This information, alongside our understanding of a person's wider skills will inform the possible **Access Methods** to try – refer to ICF Model. It's not a ONE-MAN job!

MOTOR SKILLS / PHYSICAL ASSESSMENT

- **Access Methods**
- Aim is to find the child's most reliable and consistent Access Method.
- Direct Access is typically preferable to Indirect Access
- BUT Direct Access may not ultimately be quicker if accidental selections require frequent repair.



MOTOR SKILLS / PHYSICAL ASSESSMENT

Direct Selection Input Methods:

- Physical Keyboards (inc. Assisted and Alternative)
- OnScreen Keyboards
- Pen Controlled
- Mouse Emulation
- Light Pointing
- Voice Recognition
- Eye Gaze
- Switches

MOTOR SKILLS / PHYSICAL ASSESSMENT

Selection Method

Modality of Input

Direct Selection


The user directly points to an item they wish to select

Indirect Selection


The user moves through a list of items in order to select the one they want

MOTOR SKILLS / PHYSICAL ASSESSMENT

Linear & Row-Column Scan



| | | | | | |
|-------|---|---|---|---|---|
| space | E | A | R | D | U |
| T | O | I | L | G | B |
| N | S | F | Y | V | J |
| H | C | P | K | Q | . |
| M | W | X | Z | , | ? |



| | | | | | |
|-------|---|---|---|---|---|
| space | E | A | R | D | U |
| T | O | I | L | G | B |
| N | S | F | Y | V | J |
| H | C | P | K | Q | . |
| M | W | X | Z | , | ? |

MOTOR SKILLS / PHYSICAL ASSESSMENT

Feature Matching

'Person first' approach that focuses on identifying the strengths, abilities and needs of the individual. These characteristics are then matched to the feature set offered by the hardware and software.

Different Hardware and Software will support different access methods (Direct and Indirect). Certain Software is only available on certain Hardware.

There has been a move towards a 'Platform First' approach (Costello et al 2013)

SENSORY INTEGRATION

- Our senses make us aware of our own body and the world around us, both at a conscious and **unconscious** level.
- Consider all 7 senses - the 5 well known (tactile, vision, auditory, olfactory and taste) as well as the 2 'hidden' senses:
 - Vestibular – sense of balance, what position our head is in and in what direction we are moving (receptors in the balance organ behind the ear)
 - Proprioception – knowing where our body is in space (receptors in the joints and muscles)
- Needs to be at '**Just right**' level for **optimum ability**.

EMOTION & MOTIVATION

- Research has shown that a poor fit between the users' abilities and the system's characteristics is likely to lead to **device abandonment** (Johnson *et al* 2006)
- Accuracies of various access technologies cannot be compared because they are so dependent on the ability of the individual, the training provided and the communication partner (Myrden *et al* 2014).
- **Goals** are key for motivation – your client's goals, not yours!

“If you want to live a happy life tie it to a goal; not to people or things” Einstein

We need to ensure that we are putting the Person first and not the Platform; it is the people, not the technology, that must be the central focus of [AAC] intervention.
Light & McNaughton 2013

COGNITION & PERCEPTION

- Cognitive ability and learning ability (i.e. literacy level)
- Perception (i.e. visual, auditory, kinesthetic, etc.)
- Attention
- Memory
- Reasoning and problem-solving
- Sequencing

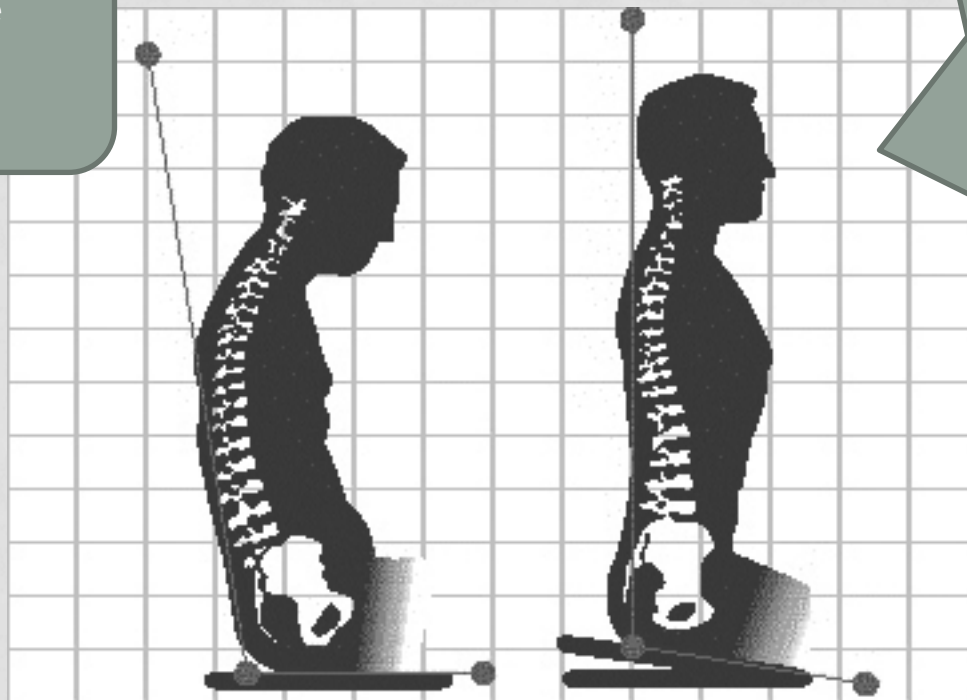


PHYSICAL ACCESS - POSITIONING

Start with the
PELVIS!

Then:

- Trunk
- Femur level
- Lower limbs
- Upper limbs
- Neck/head
- Lastly eyes



Remember
the belt is not
a 'seatbelt'
but a 'pelvic
strap /
support'!

A headrest should be the
last piece of equipment
assessed for



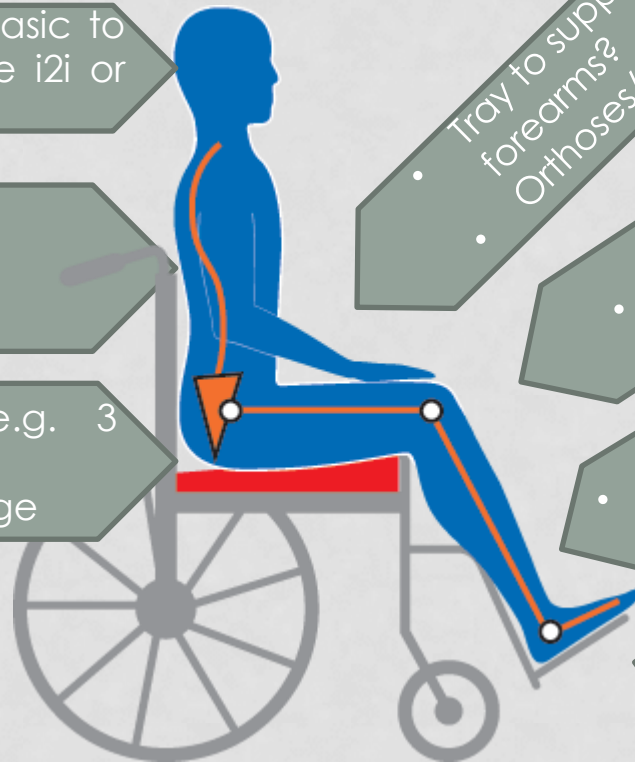
PHYSICAL ACCESS - POSITIONING

- What might your friendly OT prescribe to help with positioning?!

- Head supports from basic to more complex like the i2i or rollercoaster

- Laterals – flexible or fixed
- Harnesses
- Body suits

- Pelvic support strap e.g. 3 point/5 point
- Special cushion e.g. wedge



- Tray to support forearms?
• Orthoses/splints?

- Knee blocks

- Ankle huggers /
• Straps

- Footplates / platform
• / sandals

PHYSICAL ACCESS

IS THIS ENOUGH INFO FOR SET UP?

Eye gaze programme

Goal: to participate in motivating games and play favourite videos on a computer independently

Position: (see photo)

- Position [redacted] in chair
- Position the eye gaze in the middle
- Bring hands together to facilitate bringing head to the middle

Use [redacted] Yes/No Symbols to confirm which game he wants.

Programmes:

For warm up:

LookToLearn: *Explore*: **Green Bottles, Face Splat**. *Target*: **Fruit Punch & Shoot** EyeFX: **Dwell bomb**.

Focus on (to develop dwelling):

LookToLearn (*Scenes and Sounds*)-*Sounds*-**Happy Birds**

LookToLearn: *Target*: **Video Wall x4**

Alternatives to try: LookToLearn (*Sensory*)- Egg and Farmyard, and LookToLearn *Scenes and Sounds* -*Scenes* Planet Pog

NB: Make the use of eye gaze a social/communication time: comment, laugh, vocalise as appropriate and have fun together!



Remember:

•Using eye gaze is very tiring – be aware of how tired [redacted] might be

•If your face is too close to his face, the eye gaze will pick up your eyes and not [redacted]'s!

ENVIRONMENT

- **Equipment** required (i.e. seating, stylus, switches, mobile arm support, etc)
- **Location** where equipment will be used – organisation of furniture, lighting, etc.
- **People** supporting the device – health professionals, parents, school team, etc. - the individual's 'communication partner'.

CASE STUDY

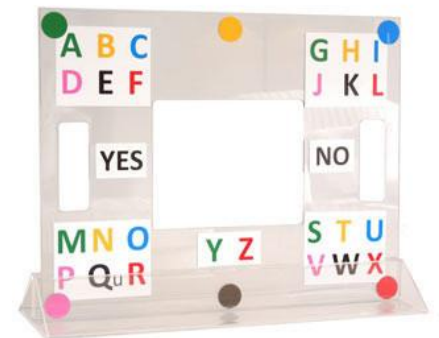
- **TM:**

- 18 y.o. girl
- Attends mainstream school with full time support
- Some degree of learning disability and Neuro-deteriorating condition (ALS). Non verbal.
- Drives a powered wheelchair with joystick.
- Has been known to AT service for around 7 years
- Different types of technology tried over the years to meet her changing needs.

- Current has 2 ways of using technology – iPad and Eyegaze computer.

Uses switches occasionally for PowerPoint.

- E-tran frame as low tech device



ANY QUESTIONS?

Contact Details:

- Patricia Terror-Perez – ots4schools@gmail.com
Tel 020 3 317 2240 | Twitter: @pterrer | LinkedIn: Patricia Terror-Perez
- Michelle Watson – michellewatson@vistatherapy.co.uk
Tel: 07939 527409 | LinkedIn : Michelle Watson

Job opportunity! – Highly Specialist SLT at Pace, an established children's charity for children aged 0 – 18 years.

Pace are looking for a dynamic SLT interested in maximising and furthering his/her expertise with children with cerebral palsy and other motor disorders. You will work as part of a dedicated, transdisciplinary team planning and developing integrated classroom programmes, providing detailed assessments, intensive and individual therapy and making a hands-on difference with a small caseload. Ideal candidate will be experienced in AAC and Dysphagia. Provide excellent in-service training, access to other CPD opportunities and supervision within an expert and supportive team. For an informal chat and/or further details, contact: Laurel Allen, Clinical Lead SLT, laurel.allen@thepacecentre.org Tel: 01296 614287 **www.thepacecentre.org.uk**