



BRITISH ACADEMY
OF AUDIOLOGY

Assessing children behaviourally, when to think outside the box, and when to stay in it!

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Behavioural Testing

“These use test techniques where the audiologist records the child’s response to sound. This might be a startle, look or head turn in a baby, or an older child moving a toy or saying “yes” when they hear a sound”





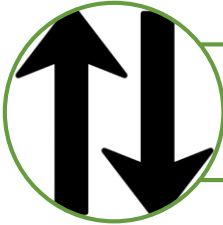
VRA Recap



Key diagnostic hearing test for children aged 6m to 2.5y



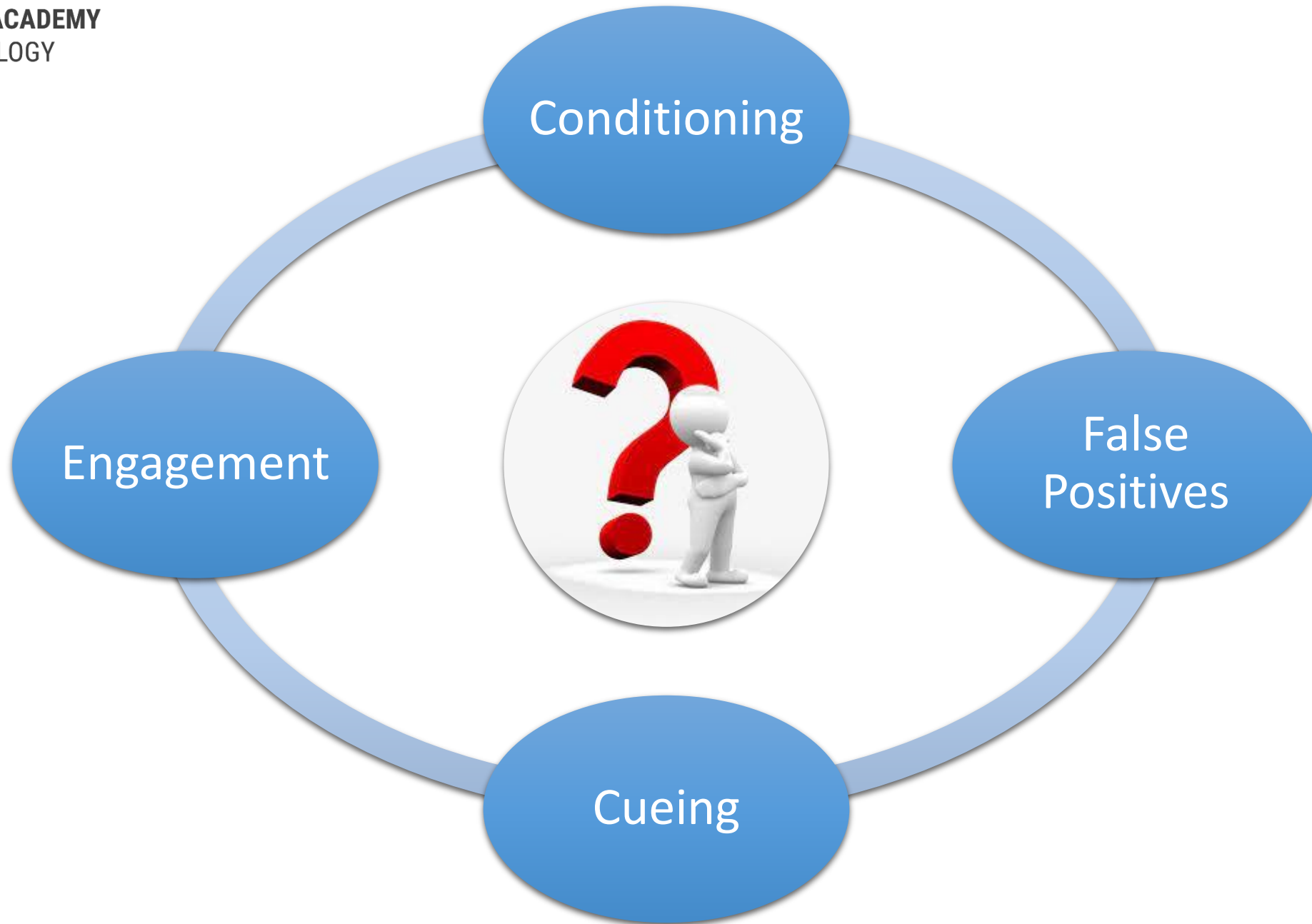
Based on operant conditioning



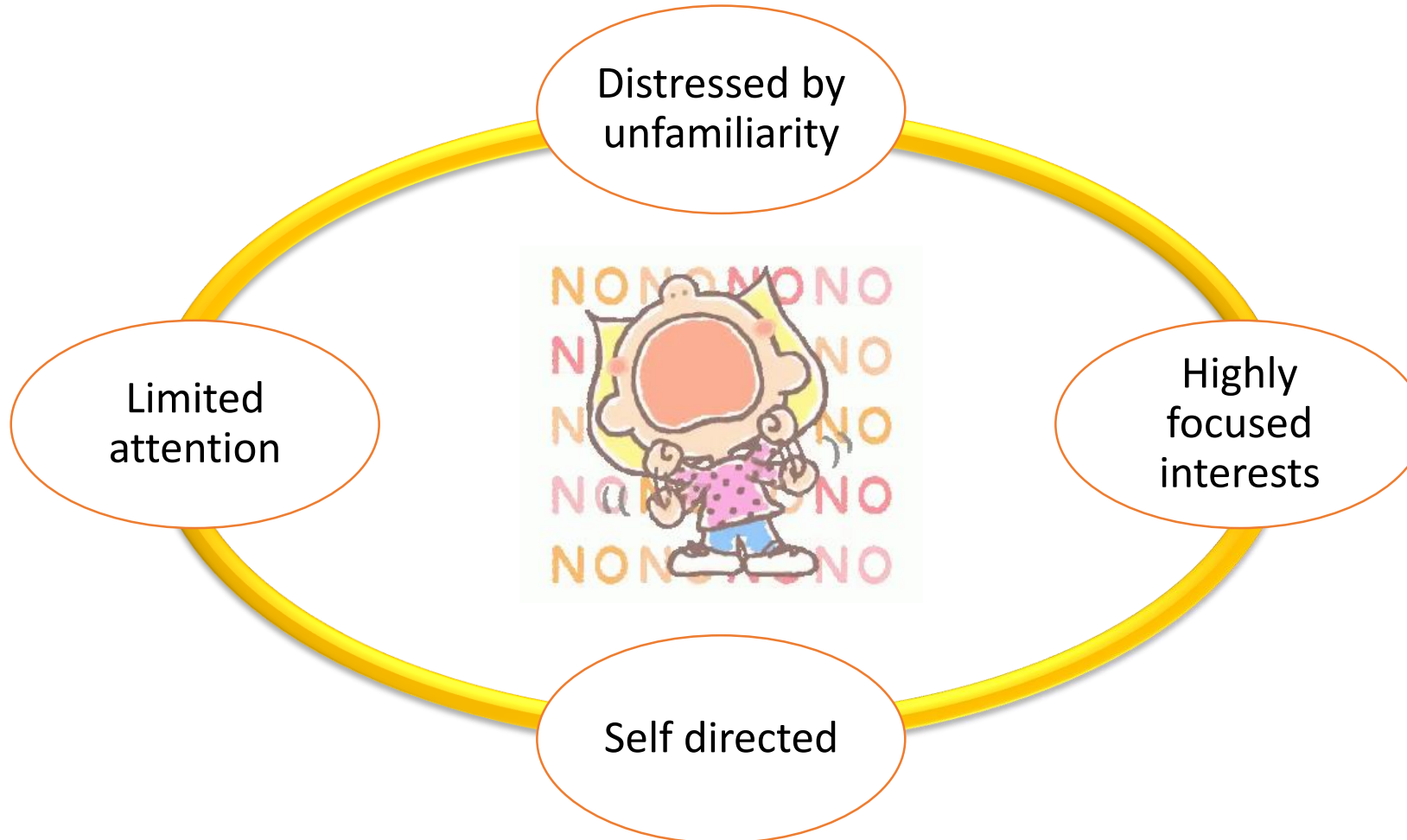
20 down / 10 up or 10 down / 5 up



Threshold = 2/3 ascending responses



What about the Patient?





Hummingbird Clinic

Specialist clinic designed around the needs of a child with complex needs or Autism

Challenged the status quo of what an audiology clinic should look like



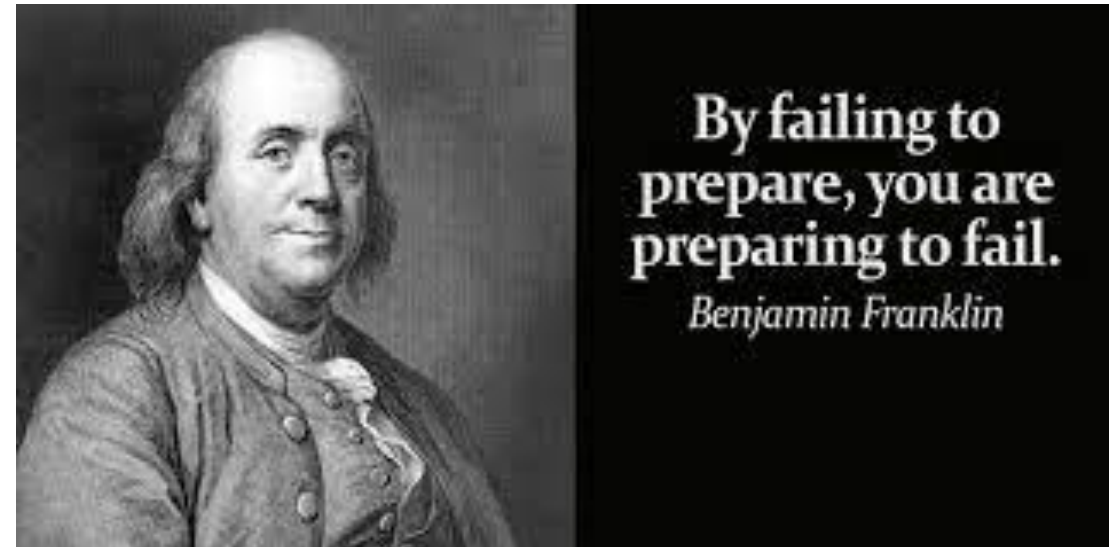


Be Prepared








Know your patient and their needs

Consider using a pre-appointment questionnaire

Tailor each appointment to the individual patient




Prepare the Family


 what	What will happen?
 hearing check	I am going to have a hearing check.
 parent/carer	My _____ will come with me to the clinic.
 lift stairs	I will go in the lift or up the stairs to the room.
 waiting toys	I will wait in the waiting room with the toys.
 fun listening	I will play listening games with the grown ups.
 door go	Then it will be time to go.

Children's Audiology Centre →


When I get to the second floor I will turn right.

I will find the Children's Audiology Centre.






We will say hello to the receptionist and then we will wait in the waiting room.



This is the corridor that leads to the quiet test room where I will play listening games.



You may want to read this story to your child

My name is _____ and I am going to have my hearing checked.

My _____ will go with me to the clinic. I will go up the stairs or in the lift to the audiology department. I will wait my turn because other people are having their hearing checked. I can play with toys while I am in the waiting room. When it is my turn the audiologist will take us to the testing room. The room is special, it is very quiet inside.

Two grown ups will check my hearing. They will talk to my _____.

One of the grown ups will explain and show me what to do.

I will listen to sounds and might wear headphones.

When I have finished all of the activities I can go.

Everyone will be pleased with me.



Don't overcomplicate, stay in the box!

Remember the pitfalls:

- Engagement
- Conditioning
- Reinforcers

It's a hearing loss until proven otherwise!





Let the patient lead!

Utilise the patients attention by following their lead

Think creatively about how you use your roles

Learn to be comfortable with being flexible and adaptable



Utilise your resources and stay inside the (toy) box

Understand and exploit any highly focussed interests

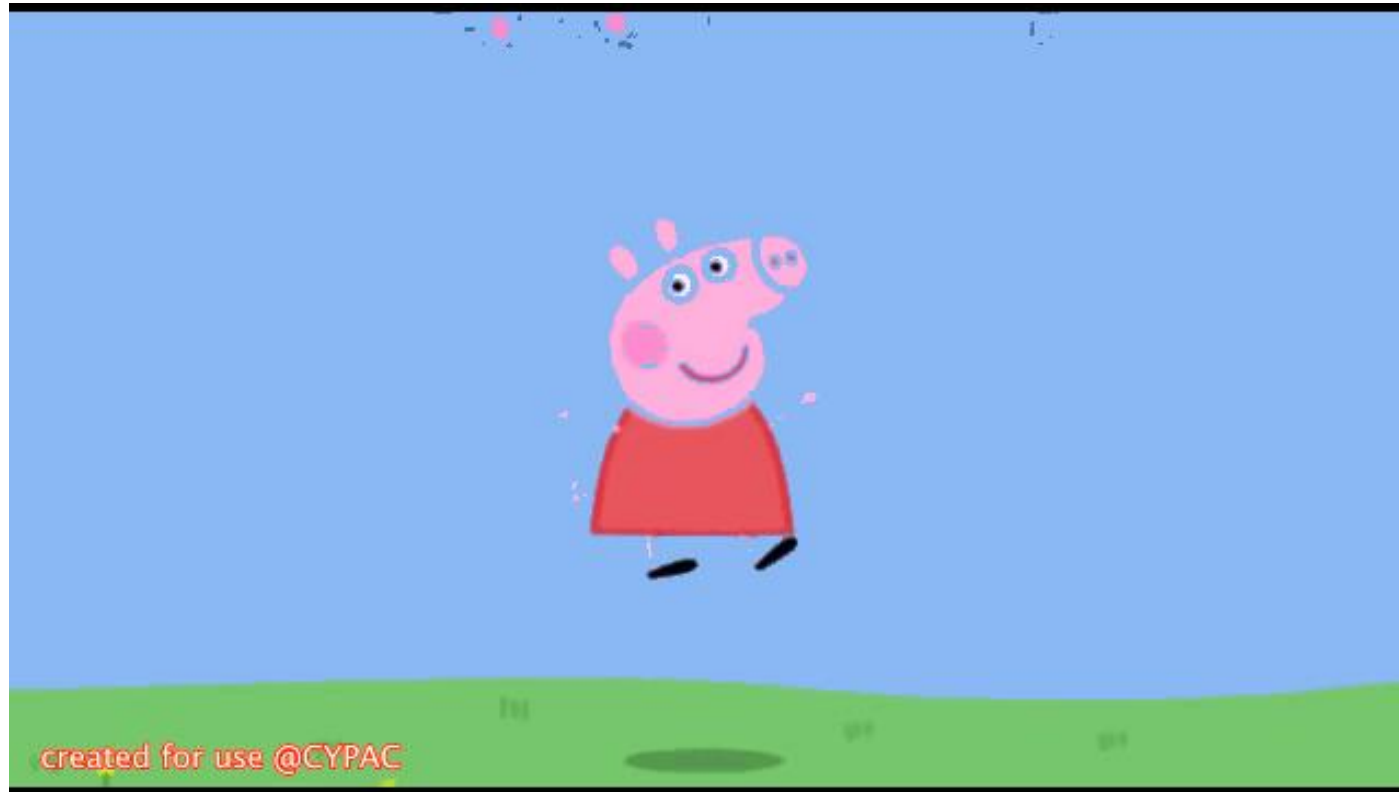
Invest in your engagement resources, they are just as important!

Be creative and think outside the box!





Tailor the session





Time to think outside the box?

How can we utilise parents/familiar adults?

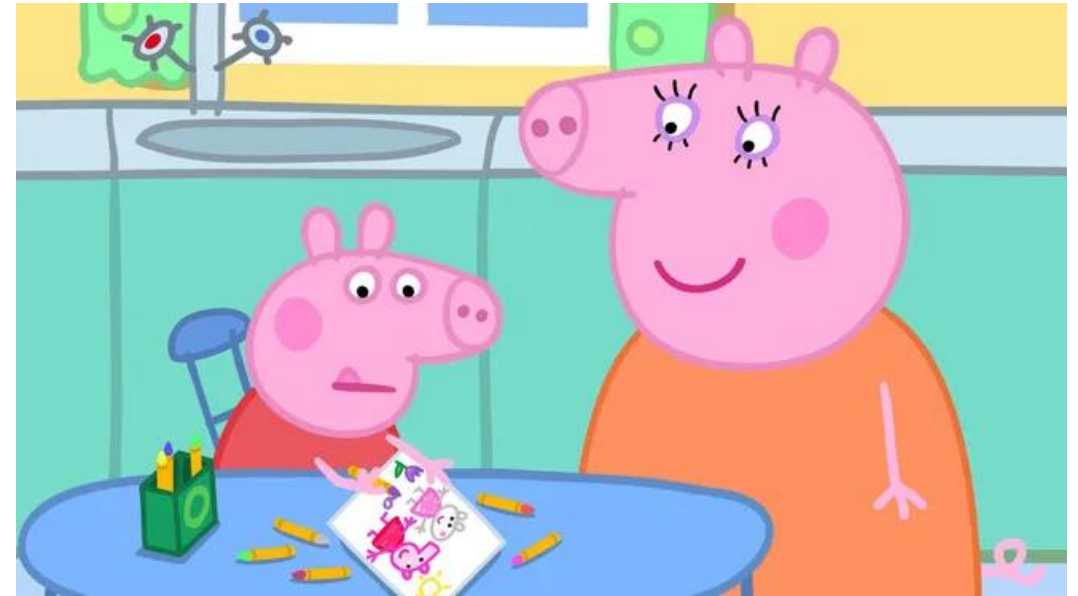
- Engagement?
- Otoscopy?
- Tympanometry and OAEs?

What are the risks:

- Cueing?
- Safety?

How do we mitigate risks?

- Instruction
- Vigilant oversight
- Extra critical of results





Let the patient lead (outside the box)!

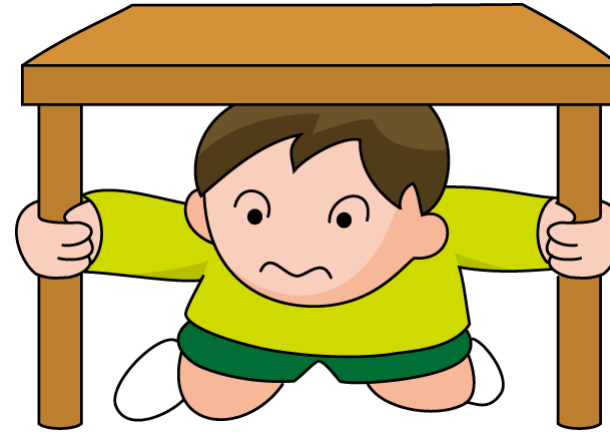
How can we adapt to the child's needs? E.g. when hiding under a table?

What are the risks?

- Variable stimuli levels

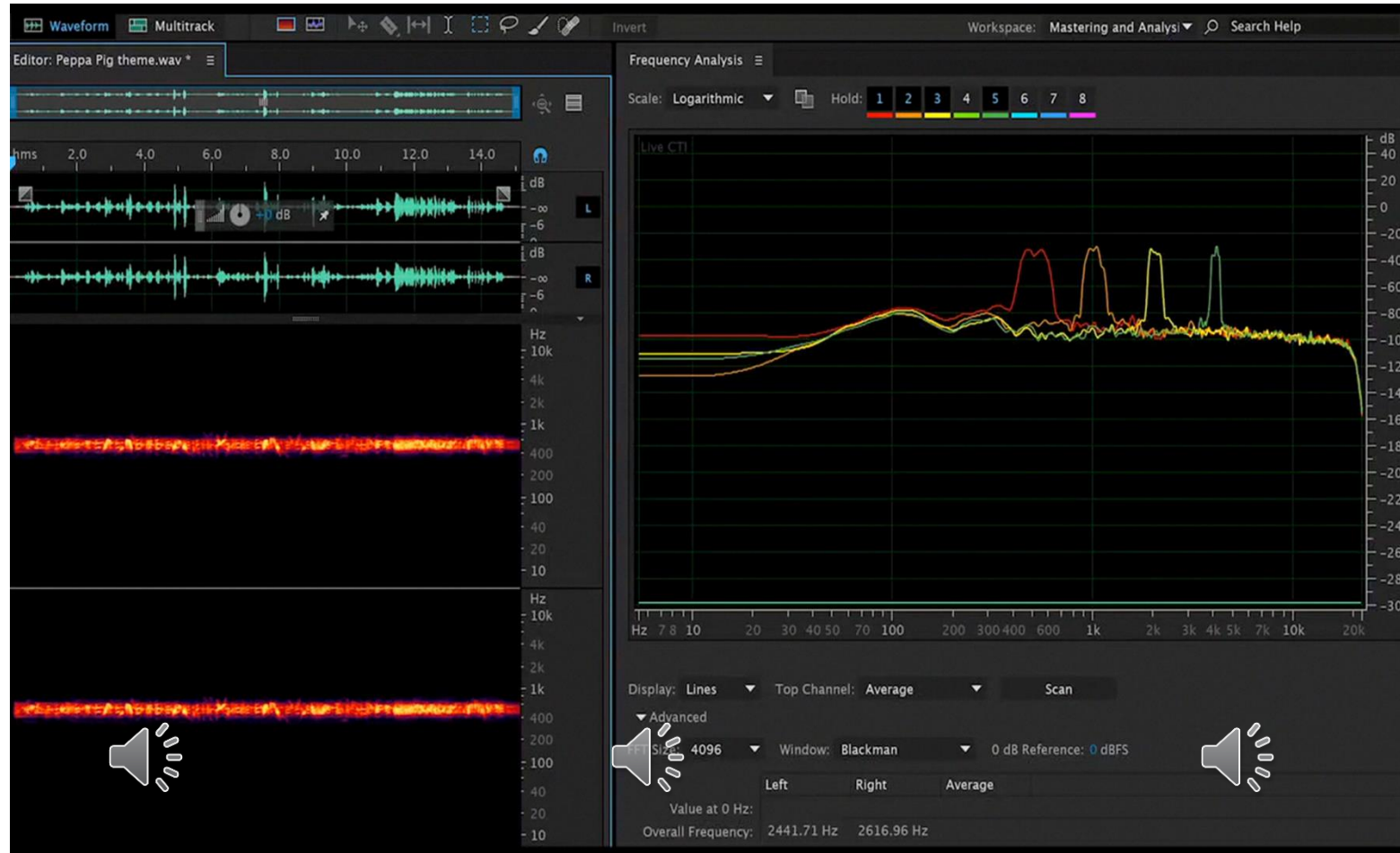
How do we mitigate risk?

- SLM's
- Clear reporting



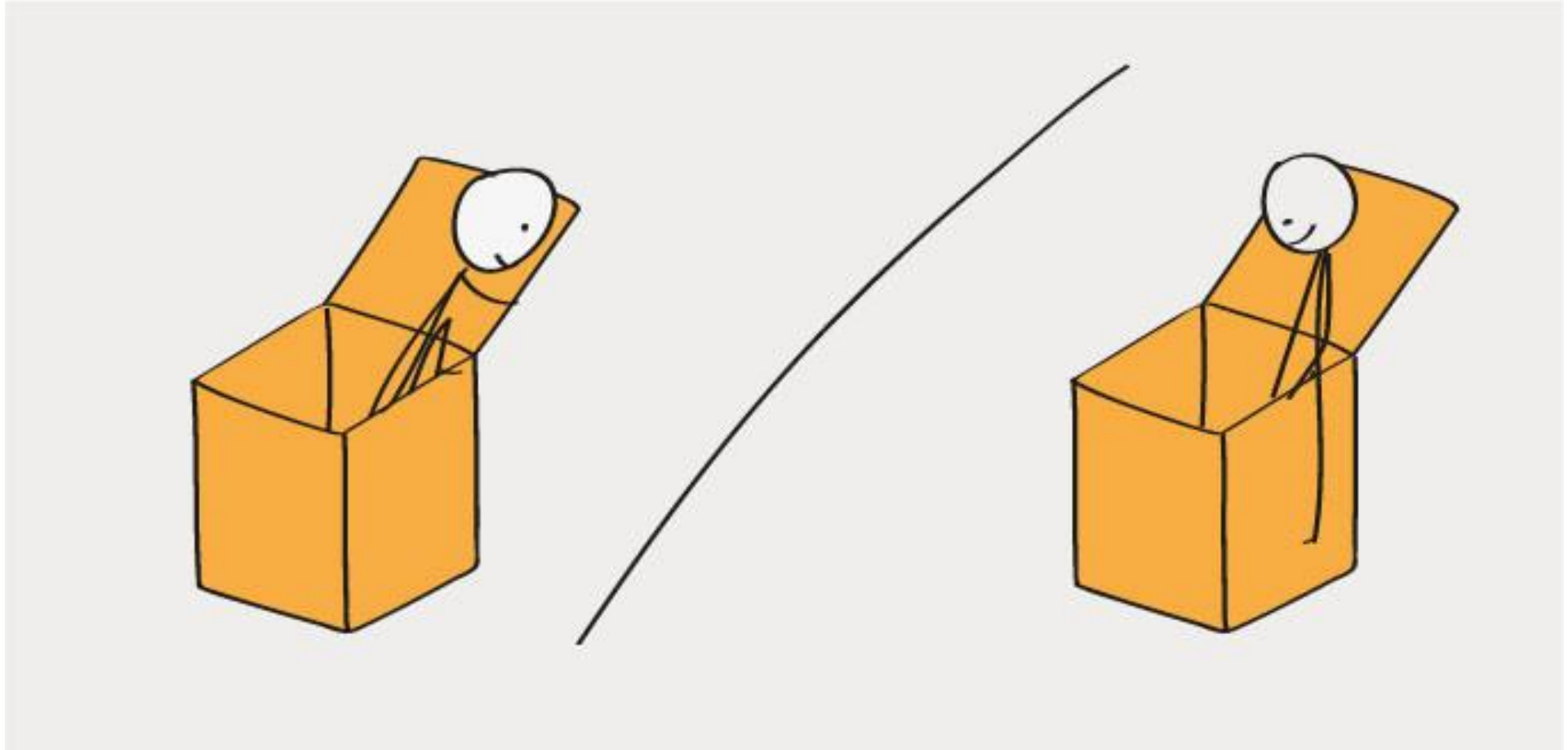


What if a warble tone doesn't cut it?





BOA and Distraction: inside or outside the box?





BOA: inside or outside the box?

What is it?

- Observation of behavioural responses including startles, blinks and eye flicks
- Main use in infants with a moderate or greater hearing loss
- Appropriate in around 20% of children with complex needs

Limitations:

- Responses considered 15-20dB supra threshold
- Time intense as you need to understand normal to accurately identify change
- Cueing
- Prone to tester bias: 'expecting normal'

Distraction Testing: inside or outside the box?

What is it?

- Head turns in response to sound stimuli
- Ascending stimuli levels using rattles, humming etc

Limitations:

- Very limited window for use
- Not recommended as a threshold test
- Stimuli have limited clinical utility
- Requires telepathic communication
- Prone to cueing





BOA and Distraction Testing: Conclusion

BOA

- Has a place in test battery for infants and up to 20% of patients with significant complex needs
- Not recommended for use with a patient with SCD

Distraction Testing

- Overlaps with VRA but has many pitfalls
- May have some utility in patients with significant complex needs but not recommended unless all other options have been pursued
- Not recommended for use with a patient with SCD



Electrophysiology is key!



Behavioural testing not appropriate for all



Utilise all of the resources available e.g. OAE, ABR, ASSR



Work with the MDT to establish sedation/GA ABR pathways



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