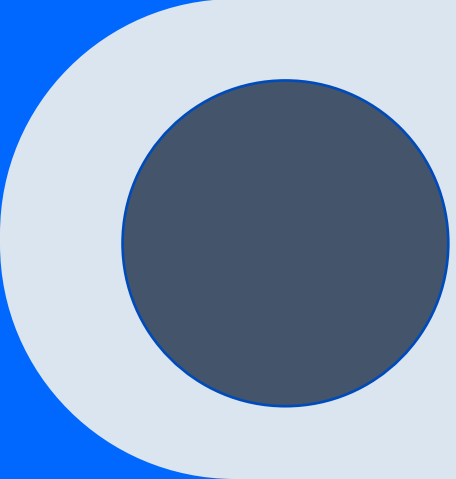





**Observations Using
Plus/Minus 2.00
My Favorite “New” Power Tool**



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Disclosures

- No Financial Disclosures
- No demands to do this or you will die!
- Hope to stimulate your curiosity
- Hope to add to your understanding of what we might be there
- So many methods of near Dynamic Retinoscopy on whose shoulders I stand, particularly John Streff, Dick Apell, Jerry Getman, Bob Kraskin, Paul Harris, my partner in a couple of the videos, and many more.

Introduction

- What is your power tool?
- Many say refraction is their starting power tool.
- I would suggest that it is observing the child's ability as you do a test using +/- 2.00 Flippers
- It is one of the best power tools you can use in children.

Introduction

- Observing a patient's responses to +/- 2.00 during Just Look Retinoscopy is becoming my favorite tool when assessing school-aged children.
- By observing the child's responses to the tasks presented, this brief test provides specific information regarding their ability to manage the daily expectations in the classroom and in life.

Introduction

- This gives you an idea of:
- How they are looking,
- How they are attending,
- How they are focusing,
- How they are identifying, and
- How they are engaging in the task you present.

Introduction

- When they are efficient, they can fluidly move from clearing plus to clearing minus.
- When there is difficulty, the movements will be less fluid and more difficult.
- This difficulty in moving through space and sustaining attention usually translates into the classroom showing difficulty in academic activities requiring sustained engagement.

Introduction

- Children who easily handle the task appear to be better prepared to manage in the classroom.
- Children who do not handle this test will most often have difficulty coping with the classroom situation.
- Often, the child develops substitute patterns of engagement which we call diagnoses.

Background

- When only visual acuity and refraction are considered, any ability to engage in tasks requiring the ability to engage at nearpoint, quickly make changes in distance, and sustain at any distance at the expected stage is usually not considered in prescribing.
- These areas are more important than refraction and must be evaluated when the daily requirements include:
- **LOOKING – ATTENDING – FOCUSING – IDENTIFYING – ENGAGING**
- How many kids are required to cover one eye and look at the board all day?

Background

- **“People do not decide their futures, they decide their habits and their habits decide their futures.”** — F. Matthias Alexander
- Assessment of these processes in infancy and early childhood can provide indicators of broader brain development in the potentially at-risk child - Bubba

Background

- FM Alexander said – and I quoted this in my book, but it has not been highlighted – **“For in the mind of man lies the secret of his ability to resist, to conquer and finally to govern the circumstances of his life.”** Peter Nobes; Mindfulness in 3D – the Alexander Technique for the 21st Century

Background

- How can we judge that through the use of a retinoscope? If this is an accepted concept, the “decisions to resist, conquer, to govern is determined in the Identification phase.
- And those decisions are wholly dependent on the Look, Attend, and Focus foundations (habits) that have been developed throughout life.

Background

- **“Our sense of sight is so precious, it’s foundational to how we connect and socialize, how we learn, even our self-confidence.”**
- “Early intervention is crucial when it comes to protecting our sight and overall health, and one of the best ways to accomplish that is to visit your eye care professional regularly.”
Peter Menziuso John and Johnson Vision

Question to Ponder

- Identify - what is the meaning of this part of engagement?
- To Identify is not just determining WHAT it is.
- It involves decision-making to determine what to do with the information.
- So, I Identify - what's next?

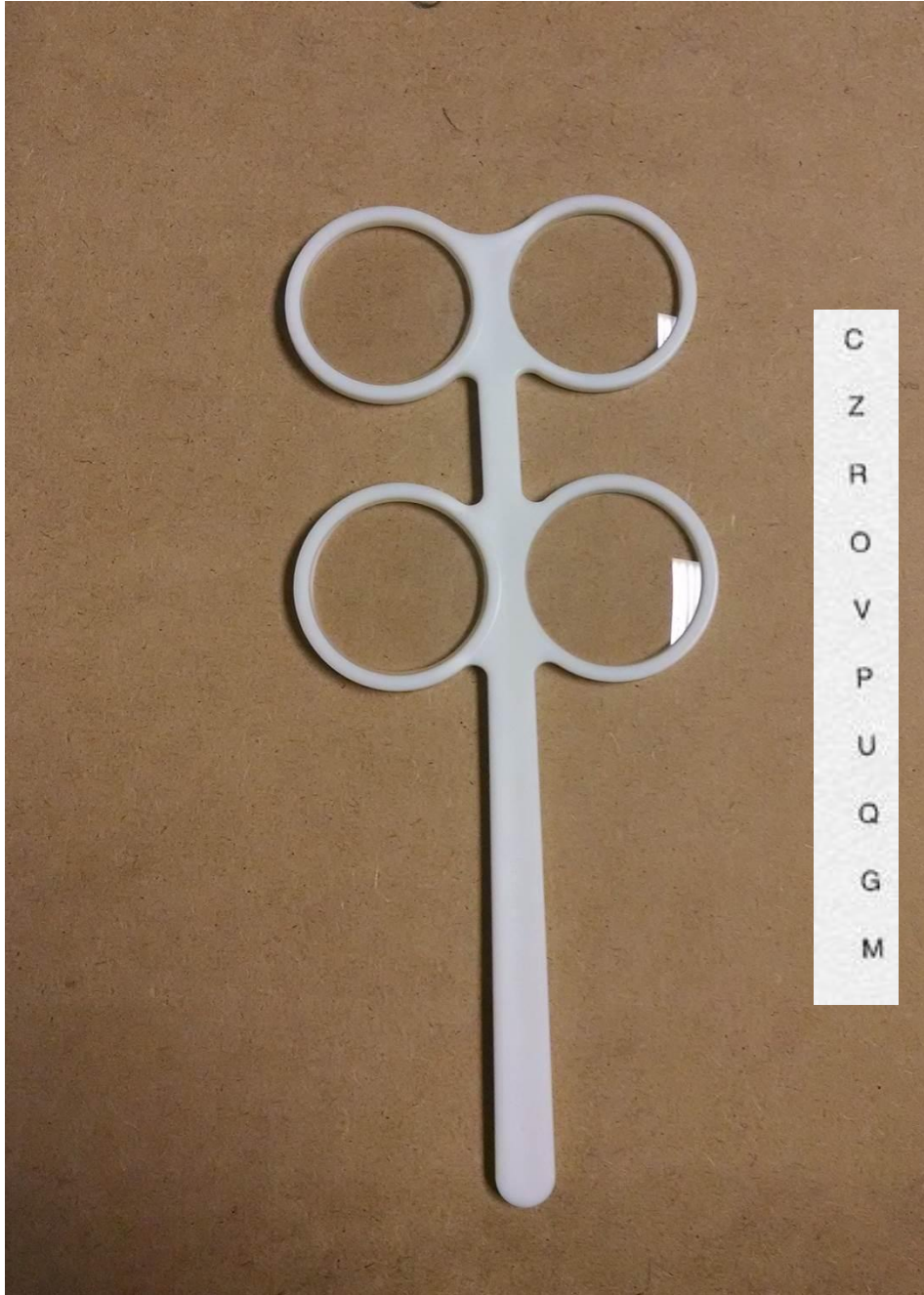
Question to Ponder

- Do I engage or not?
- If I choose to engage, at what point do I increase engagement?
- How do I back out of identification?
- Do I keep looking and attending?
- Do I continue to attend without looking?
- As long as I am attending, it is not easy to back out of engagement.
- There is a critical balance between all of these.

Just Look! Retinoscopy

- Think about expecteds as you observe near retinoscopy
- Watch accommodation with +/- 2.00 – my Power Tool
- Watch accommodation as you do push-up amp
- Observe initial response to equal low plus
- Observe as YOU move either with them as they look or in particular meridians

ers



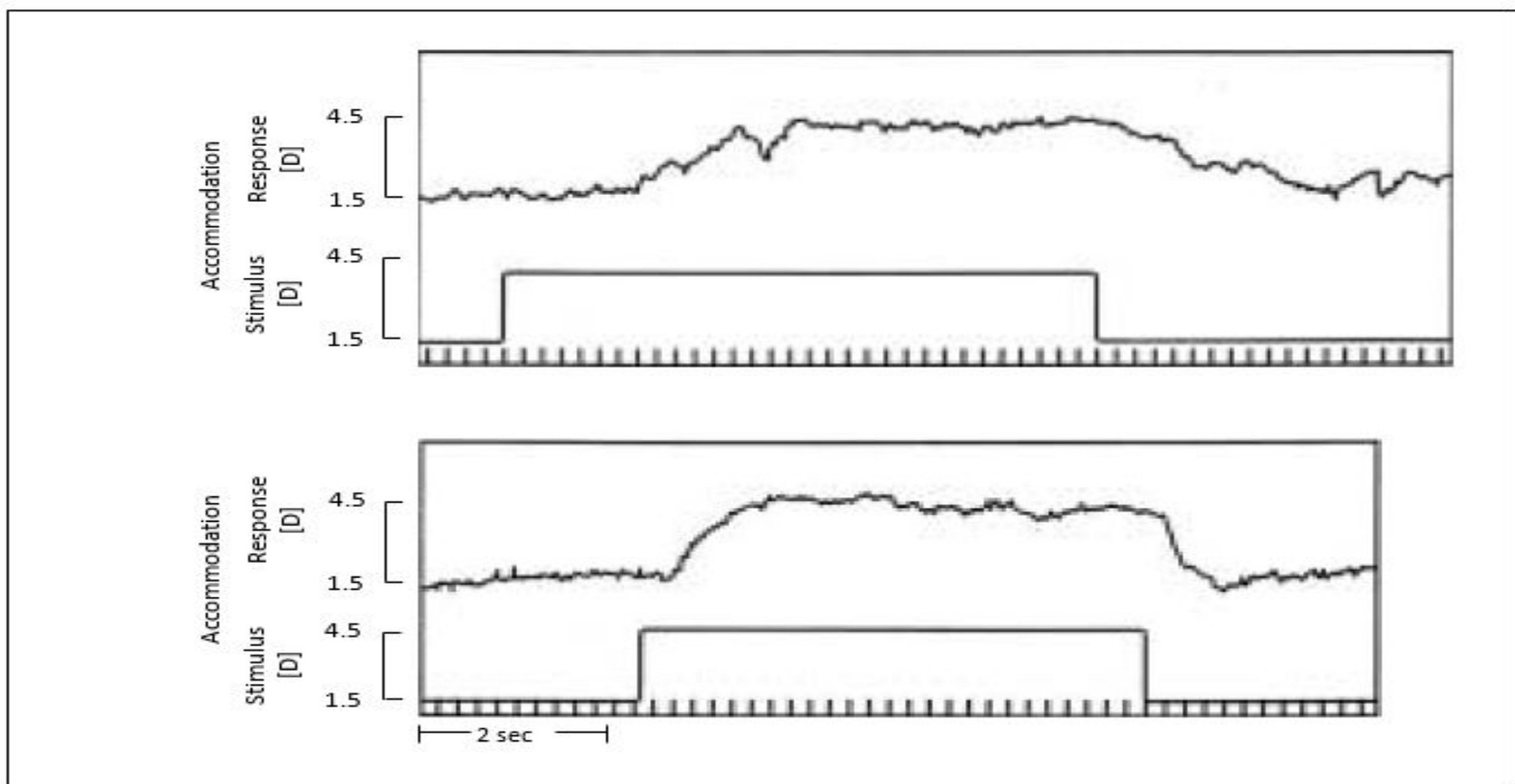


± 2.00 Flippers – My New Power Tool

- 12 cycles per minute at school age for each set
- Watch for decrease in quality of clearing during the time observed
- Watch for differences as they engage in the task
- Children in kindergarten are expected to begin major copying from the chalkboard

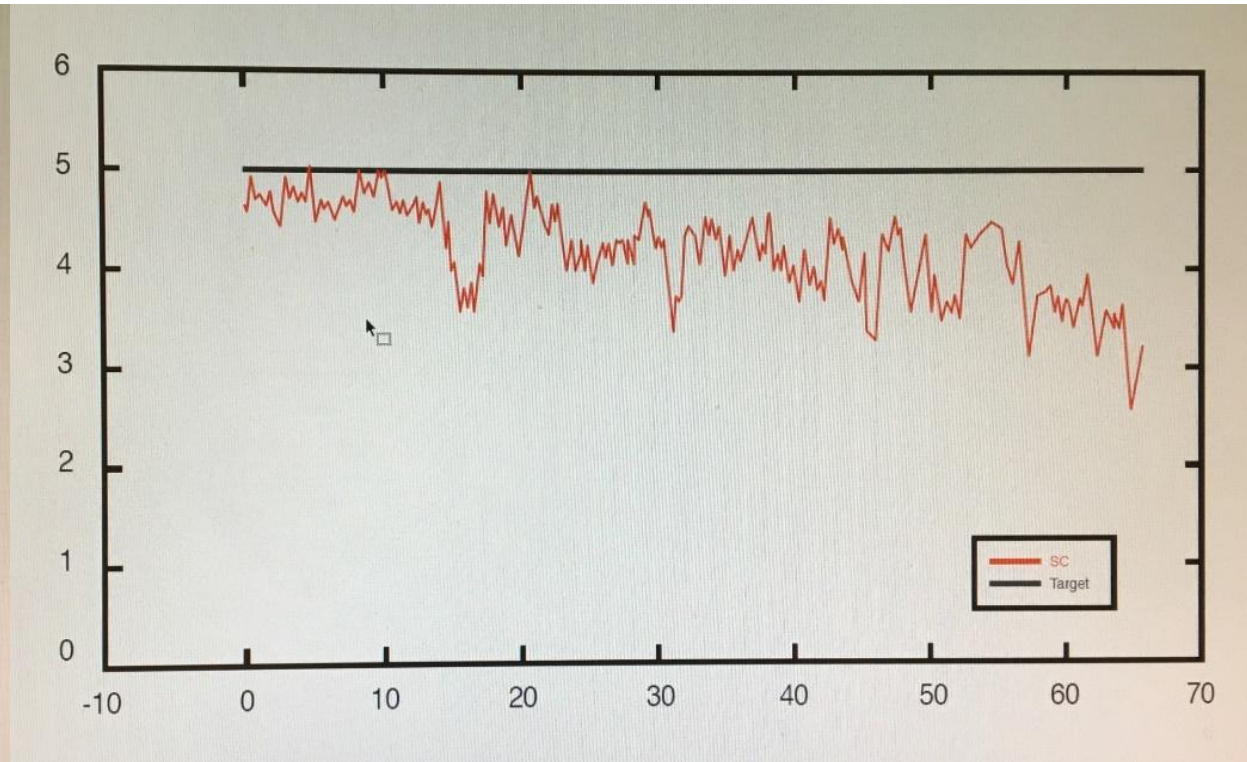
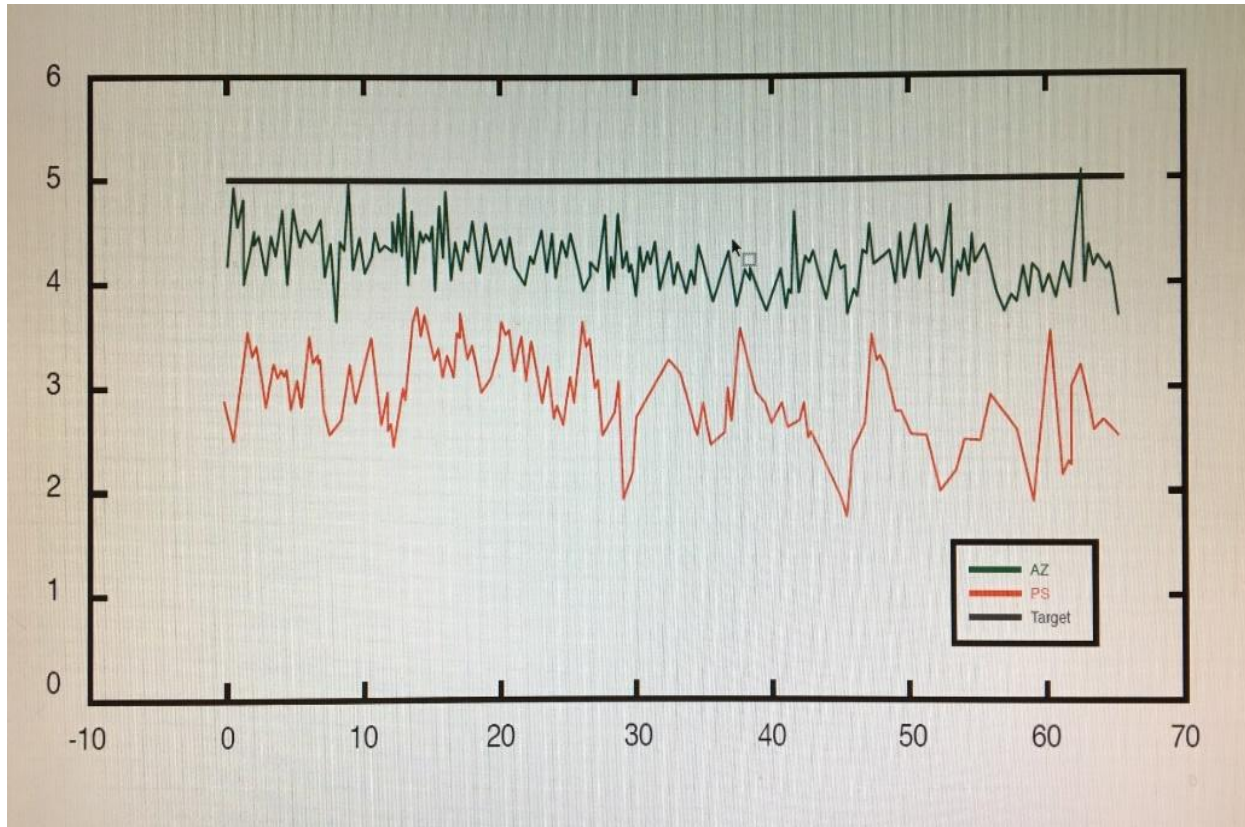
Just Look Retinoscopy - Accommodative Facility

- **Quality of Accommodative Facility** - Response to +/- 2.00 with accommodative target
- Does the child make the expected movement
- Can the child make the move at all
- Can they hold when they do make the move



- Ciuffreda KJ. The scientific basis for and efficacy of optometric vision therapy in non-strabismic accommodative and vergence disorders. *Optometry* 2002;73:735-62

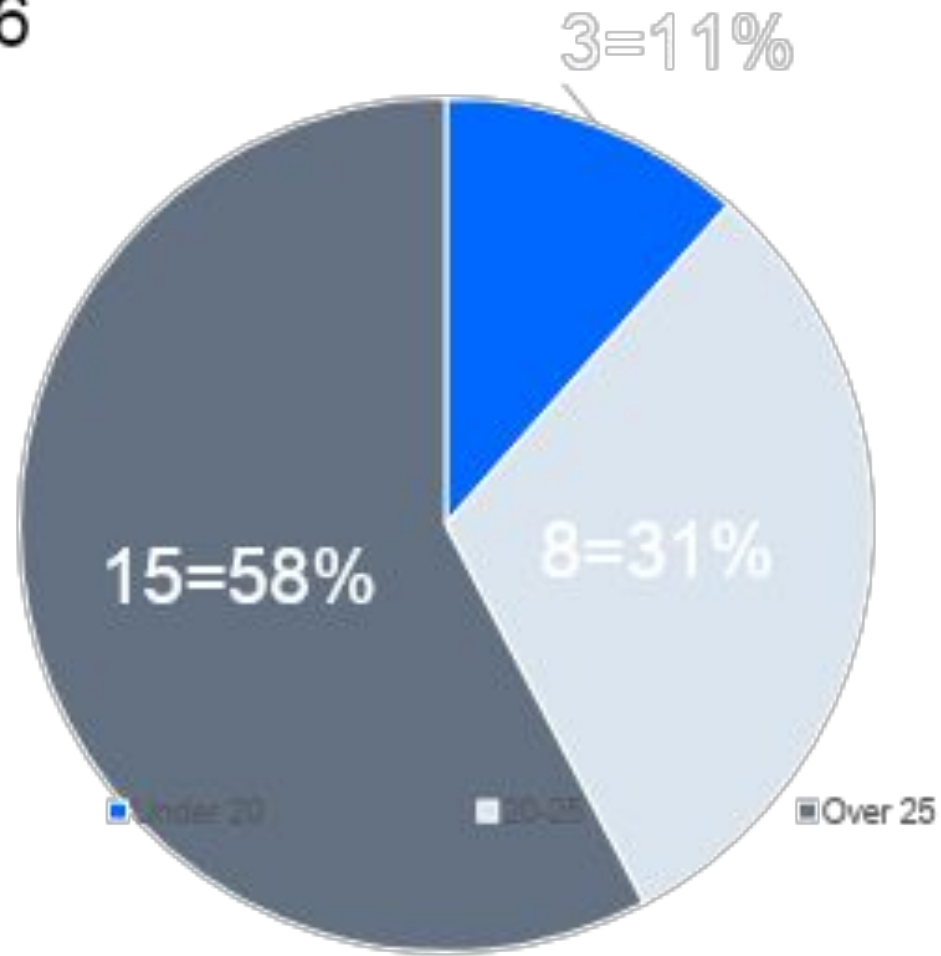
Chris Chase



Just Look Retinoscopy - Accommodative Facility

- What would be the expected classroom performance in each instance in the previous slides?
- Clinical evaluation of accommodation best observed with a retinoscope – Just Look!

COVID QoL Survey with those not clearing +/-2.00
facility n=26



23 of 26 over

What do I LOOK For?

- I make specific observations regarding HOW the patient responds to the lenses primarily to determine HOW completely the patient reacts to changes in visual tasks presented
- Assess brightness, color, and motion for equality prior to introducing the lenses and during each phase of the test
- The expectation is that initially, the eyes will be equal and bright showing an easy move to neutrality

What do I LOOK For?

- When there is little to no movement in coming to terms with the required task, the child may have little to no ability to change attention and engagement in the classroom
- When the reflex is darker during either phase of the test, this is indicative of additional effort utilized to engage and complete that phase

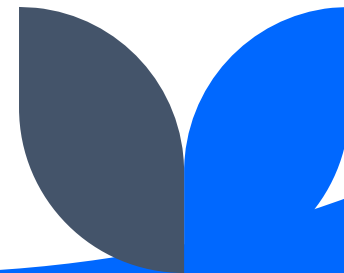
What do I LOOK For?

- A variable reflex indicates instability, and this is especially important when the initial observation without lenses was stable
- When there is a difference in reflexes patterns when the initial observation without lenses was equal indicates a disruption in binocular engagement

- Observing the patient's response to a change in requirements to return to "clear" when the lenses are removed gives a significant amount of information about:
 - Ability to change
 - Sustainability of the change
 - Ability to maintain engagement
 - Ability to release

Patient's Response

- Gives me significant information about how they might handle change in the classroom when the task requires focus and sustaining focus when:
 - Sustaining on the task for a sufficient amount of time to complete the task
 - Completing a longer assignment at the expected stage of development
 - Transferring information from one place on the desk to another or transferring from distance to near and return



- When considering LOOKING – ATTENDING – FOCUSING – IDENTIFYING – ENGAGING, it must be recognized that a disruption or glitch at any stage impacts ensuing stages and likely alters the trajectory of visual development and overall development.
- Disruptions include illness, distraction, and other pursuits which lead to failure to develop the appropriate foundation to sufficiently engage in the task presented.

- When a glitch or disruption occurs early in development, there is a greater potential for long-term impact and generally requires more aggressive management
- When the glitch or disruption is recent, there may be immediate impact, but this can usually be overcome with less aggressive management.

- The changes with +/-2.00 provide more information about the patient's ability to participate in the task than a single assessment either at distance or near.
- A child's attraction to digital device games and social media are significant contributors to disruptions in engagement in the expected activities and tasks for age such as academics, sports, arts, work, and service. This often leads to addiction taking them further away from the expectations of growth and development.

- While +/- 2.00 should not be the only procedure assessed, adding it to the test battery provides significant information in assessing a child's ability to function in the classroom.

What do You do with the Information?

- Examples of observations in response to LOOKING:
- Takes several seconds or instructions to get them to look at the target
- Pushes up in plus to +2.50
- +0.50 at nearpoint and -1.00 at farpoint
- 8-10 mm pupils that do not respond to accommodation
- Pupils larger when looking at nearpoint than at farpoint
- Pupils constrict when searching for smaller letters
- Initial alignment of ET with +2.00 and +4.00 regardless of motion

Bubba's Method for Prescribing

- Prescribe from a developmental perspective – where do you want/need them to go
- Observe reflex – how active and regulated (stable)
- Estimate the amount of movement
- Add lens power until first brightening
- Begin there in order to let the process of development take over
- If development is delayed or the child does not respond to lenses, initiate daily looking activities

Summary

- Think of Just Look Retinoscopy as a view of the continuum from exploration to fixation
- Observe where the patient might be in their developmental process
- Are they able to self-regulate at an age-appropriate level
- When the patient is in a specific stage of development, it will show in retinoscopy if one will Just Look!

Summary

- We have all been trained in a limited manner with a retinoscope
- Take it to another level!
- “It is the continuous observation over several seconds that creates a mental video of the changes in the reflexes. This allows one to determine if there are possible times where the reflex moves toward better engagement or away from engagement with the task at hand.” – G. T. Steele

Summary

- No demands to do this or you will die!
- Hope I have stimulated your curiosity
- Hope I have added to your understanding of what we might be there
- **JUST LOOK!**



Thank you!

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