

## Presenter Disclosures

Glen T. Steele, O.D. FCOVD FAAO

- (1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No Relationships to Disclose

## Vision Development Old or New

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### What is Vision Development?

- ▶ The world is a "buzzing, blooming confusion"
- ▶ Is it really?
- ▶ Does development "just happen?"
- ▶ At birth, babies begin imposing an order on and organizing the environment using whatever tools are available.
- ▶ Differences in development would likely lie in the level of sophistication developed in the use of those tools.

### Visual Development



Newborn



1 month old



2 month old



3 month old



6 month old



12 month old

### Acquisition of Tools

- ▶ How do they acquire those tools?
  - Movement, movement, movement
  - Reaching, acting, doing
  - Doing, making mistakes, correcting
  - Doing, acting, expanding

### 1 000 Times Makes It Automatic

- ▶ "A practical rule of thumb is that it takes about 1,000 repetitions of a new behavior before it becomes 'Automatic.' How many people deny themselves behavioral change by giving up too soon?"

Integrative Neuroscience  
edited by Evian Gordon  
Harwood Academic Publishers

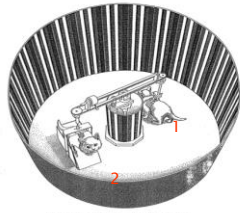
A Picture is Worth 1000 Words



Today's  
Involvement  
Culprit #1  
The  
Container

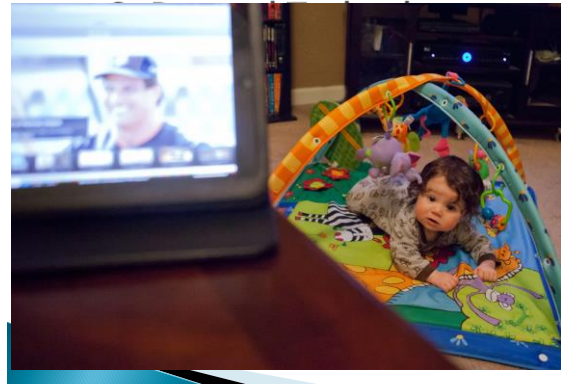


Role of Experience  
in Development of  
Visuo-motor  
coordination



Hubel and Wiesel  
Held & Hein

Figure 8.17 Held and Hein's experiment (orig. from Held, 1962)



Get your baby walking

- How (w) the pro
- Does th at an a
- Do thin develop

There must be an easier way.

**New walkers, meet your training wheels**  
This revolutionary method of learning to walk makes the process of learning to walk easier and more fun for babies, while parents experience less back pain and worry over about their babies falling.

**walking wings** a revolution in learning to walk

How do parents know if normal visual development is taking place?

Typically, they do not!  
It's not that they don't care - it's that they don't know  
This magnifies the need for early identification and intervention

## Starting Early

- › School Readiness begins in infancy!
- › Vision development is a significant part of that process

## Social and Emotional Milestones – CDC

- › 12 months
- › Shy or anxious with strangers
- › Cries when mother or father leaves
- › Enjoys imitating people in his play
- › Shows specific preferences for certain people and toys
- › Tests parental responses to his actions during feedings
- › Tests parental responses to his behavior
- › May be fearful in some situations
- › Prefers mother and/or regular caregiver over all others
- › Repeats sounds or gestures for attention
- › Finger-feeds himself
- › Extends arm or leg to help when being dressed

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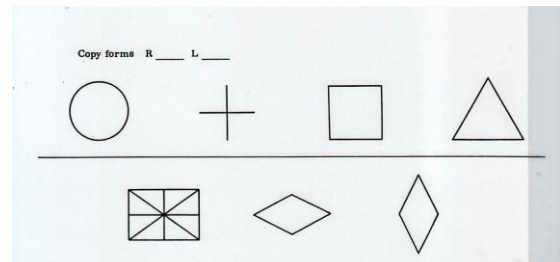
## Cognitive Milestones

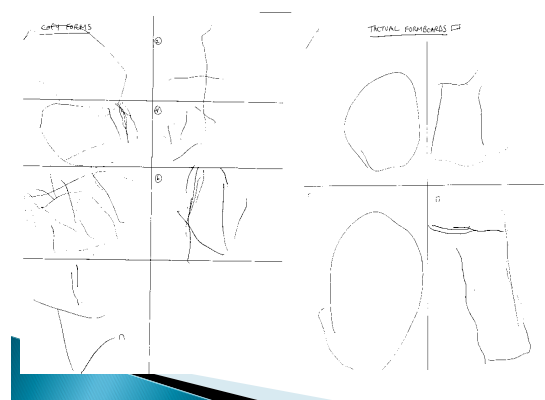
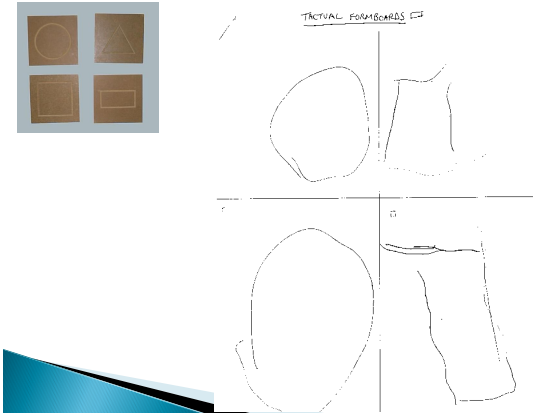
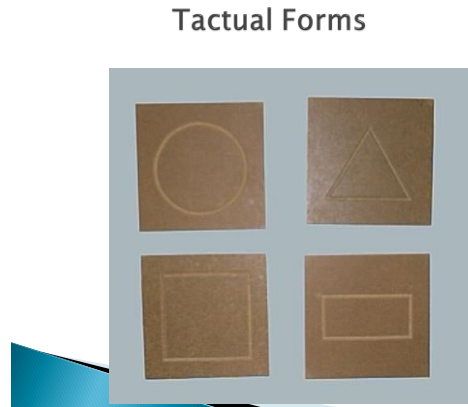
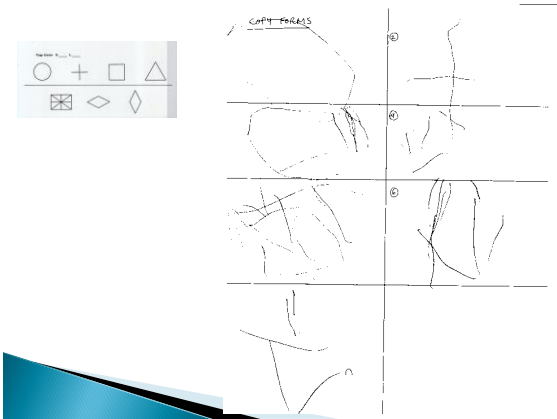
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- › Finds hidden objects easily
- › Looks at correct picture when the image is named
- › Imitates gestures
- › Begins to use objects correctly (drinking from cup, brushing hair, dialing phone, listening to receiver)

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- › Shelov, S Caring for your infant and young child

## Copy Forms





### Sadie +7.00 at 7 years of age

- ▶ [..\..\Oyler School\Sadie's Samples1.pdf](#)
- ▶ [..\..\Oyler School\Sadie's Samples2.pdf](#)

### An Epidemic

- ▶ InfantSEE – 10% of babies show a risk factor
- ▶ See to Learn (Kansas) – 15% of three year olds show risk factors
- ▶ Often stated – 20% of school aged kids have risk factors that have not been identified
- ▶ Our current methodology is not getting better – it is getting worse
- ▶ Our current system is NOT WORKING

## Call to Action

- › School readiness begins in infancy
- › Vision Development is a part of school readiness
- › Raise awareness of all professions that vision is an essential benefit in the Affordable Care Act
- › Raise awareness parents with the need for early examination
- › Early Identification and appropriate intervention leads to more productive life

## Contact Information

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