



Active Learning Space at www.activelearningspace.org

Active Learning Study Group

September 27, 2018 from 3:00-4:00 PM (CST)

Presented by

Patty Obrzut, Penrickton Center for Blind Children

Jessica McCavit, Penrickton Center for Blind Children

Facilitated by

Charlotte Cushman, Perkins School for the Blind

Charlotte.cushman@perkins.org

Developed for:

Penrickton Center for Blind Children

Perkins School for the Blind and

TSBVI Outreach Programs

You are being recorded...

By participating in this event, participants acknowledge that the event will be recorded and made available by TSBVI to others on the internet. Participants acknowledge that their attendance, and that their audio, written, video and other participation in the event will be recorded and made available to others during and after the event.

By participating in the event, participants acknowledge that they waive all rights to confidentiality related to their participation in this event, and that TSBVI is held harmless from any claims of liability related to their participation, including the redistribution of the event.

Housekeeping

- Download handouts from tsbvi.live/webinar . If you have multiple participants viewing from a single device please complete a TSBVI Webinar Sign-in Form located in the same folder with the handouts.
- If you use a hardcopy Sign-in Roster, please send it to sobeckb@tsbvi.edu or fax to 512-206-9320
- Make sure you are registered in *escWorks* and complete the webinar evaluation within 60 days. Include the CEU code for ACVREP/SBEC credit. The CEU code is provided during the webinar.
- You can view live captions in a separate window/device at <https://tcc.1capapp.com/event/tsbvi/embed>

Zoom Webinar Accessibility Features

For tips about screen navigation in the Zoom software go to <https://zoom.us/accessibility>

You can view a brief video tutorial at <https://tsbvi.live/zoom>

Link to enter room:

To access today's webinar please go to the following link.

Please click this URL to join.

<https://tsbvi.zoom.us/j/947246988>

Audio

Join by Computer Audio or join by phone:

US: +1 408 638 0968 or +1 646 876 9923 or +1 669 900 6833

Webinar ID: 146 756 178

International numbers available: <https://zoom.us/j/947246988>

Active Learning Study Group September 27, 2018

Facilitated by:

Patty Obrzut, M.S., OTR/L, Assistant Director, Penrickton Center for Blind Children
Jessica McCavit, M.S., OTR/L, Penrickton Center for Blind Children
Charlotte Cushman, Perkins School for the Blind

Co-Hosts



Co-Hosts



Patty Obrzut
Penrickton Center for Blind
Children



Jessica McCavit
Penrickton Center for
Blind Children



Figure 1: Photos of Patty Obrzut and Jessica McCavit

Patty Obrzut and Jessica McCavit, Penrickton Center for Blind Children

Poll

Have you used the Functional Scheme to assess Fine Movement?

- Yes
- No
- I don't work directly with students.

Webinar Dates

- January 24, 2019: Constructive Play
- April 18, 2019: Oral Motor Activities

Remember: You need to register separately for each session!

<https://txtsbvi.escworks.net/catalog/session.aspx?sessionid=39532>

View Recorded Webinars



Figure 2: Screenshot of archived webinar for the September 2017 Active Learning Study Group.

<http://www.activelearningspace.org/resources/webinars>

Subscribe to our Newsletter!

Active Learning Newsletter

Subscribe to our mailing list

* Indicates required field

Email Address *

First Name

Last Name



Welcome to Active Learning Space!

This is our first eNewsletter and we hope to send them out regularly to let you know what's new.

Figure 3: Screenshot of the newsletter mailing list sign-up page

<http://www.activelearningspace.org/>

Modules

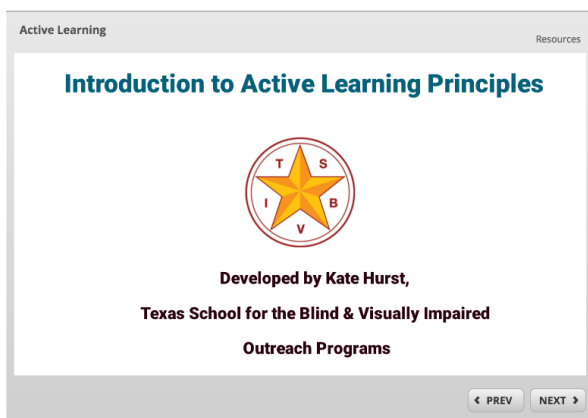


Figure 4: Screenshot of Introduction to Active Learning Principles module

<http://www.activelearningspace.org/courses>

Upcoming Trainings

- Georgia Vision Educators Statewide: Oct. 10-11
- Penrickton Center: Nov. 5-6

Full calendar: activelearningspace.org/training-events

The Comprehending Hand

Active Learning and Fine Motor Skill Development

Goals for Today's Session

- To understand how an infant develops the ability to grasp
- To understand how cerebral palsy and other disabilities can influence a child's ability to grasp
- To identify Active Learning strategies and activities that encourage the development of grasp

A Child is a Learner!

- As such, a child learns throughout life. A child learns gradually according to his/her level of physical, mental & emotional capacity – no matter how old he/she is, or what type of special need has affected or is still affecting his/her ability to learn.
- Learning is therefore only restricted by a lack of learning opportunities in a poor environment.
- If a child is unable to grasp, he/she will be unable to make full or sufficient use of the impressions he/she is experiencing.

Dynamic Learning Circle

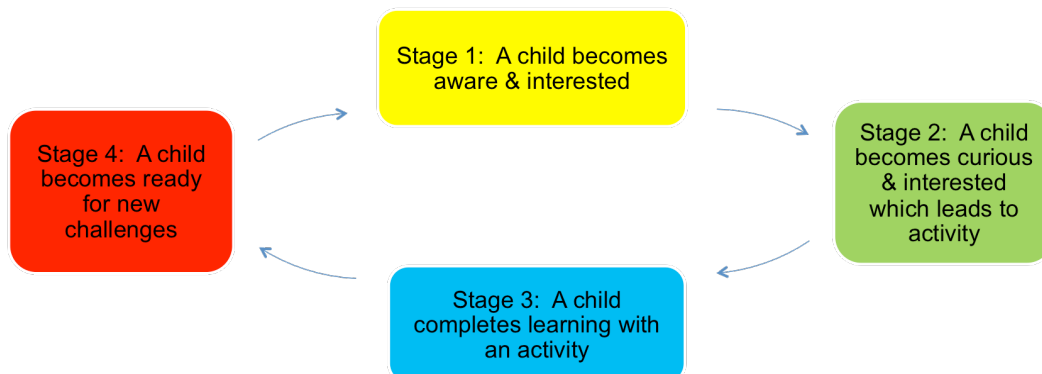


Figure 5: Diagram of Dynamic Learning Circle -- Stage 1: A child becomes aware & interested; Stage 2: a child becomes curious & interested, which leads to activity; Stage 3: A child completes learning with an activity; Stage 4: A child becomes ready for new challenges.

The Development of Grasp

Hand Position/Grasp	Activities of the Hand
<p>In utero</p> <ul style="list-style-type: none">○ Development of hands in fluid environment, weightlessness	<ul style="list-style-type: none">○ Movements of arms/hands○ Hand to mouth○ Pushing against uterine wall○ Open/close fingers○ Hand to hand
<p>0-1 Month</p> <ul style="list-style-type: none">• Reflexive hand• Holds hand tightly	<ul style="list-style-type: none">○ Movements of arm/hand○ Hand to mouth○ Scratching motion
<p>2 Months</p> <ul style="list-style-type: none">• Reflexive grasp• Holds hands un-fisted half of the time	<ul style="list-style-type: none">○ Grasp & let go○ Releases objects without awareness



Figure 6: Infants With a Thumb-in-Fist Posture (Michael Jaffe, Yoram Tal, Hussein Dabbah, Leonid Ganelis, Ayala Cohen, Lea Even and Emanuel Tirosh: Pediatrics 2000; 105;e41 DOI: 10.1542/peds.105.3.e41)

Video Examples 0-2 Months of Age

- These children's hand movements are influenced by Cerebral Palsy
- Hand development is under 2 months of age
- Activities should reflect current ability level of the hand
 - Movement of the arms and hands
 - Scratching
 - Grasping
 - Letting go

Video Example

Child with a slinky on a resonance board

Video Examples 0-2 Months of Age

- Stages 1 and 2 of Dynamic Learning Circle
 - Aware of the slinky and arm movements
 - Actively experimenting
- Feedback
 - Auditory, Tactile, Vibration, Proprioceptive
- Processing time
- Position of hands
 - Fisted
 - Bilateral extremity movement
 - Thumbs adducted between index and third finger

Video Example: Rylan

- Outdoor activity wall

Video Reflection: Rylan

- Increased time to move/increased processing time required
 - Understanding his movement caused something else to happen
- Movement of multiple body parts

Video Reflection: Luke

- Has the ability to grasp, but developmentally, is at the level of a 2 month old
 - Previous experiences impact willingness to explore
- Multiple opportunities provided to practice various developmental skills
 - i.e. grasping the washcloth or rice; moving one hand to the other

Video Example: Kassidy

- Uses muscle tone to grasp, releases unintentionally
- Proper positioning required to be successful with grasping

Video Reflection: Kassidy

- Actively grasping and moving arm to make contact
 - Practicing grasping/releasing
- Transitioning to next developmental level
 - i.e. purposeful opening of hand, but difficulty controlling grasp

0-2 Months Old

Activities must allow for:

- Movement of the arm
- Movement of the hands and fingers
- Scratching
- Hand to mouth
- Grasp and release



Figure 7: Infant hand with fingers open (Image from respectfulcaregiving.org)

Hand Position/Grasp

3 Months

- Voluntary grasp begins
- Hands un-fisted most of the time

4 Months

- Reaches
- Engages hand in supine
- Clutches objects
- Retains objects

5 Months

- Transfers object hand to hand
- Palmer grasp with thumb adducted

Activities of the Hand (0-2 Months)

- Puts hands together
- Grasp & let go
- Grasp & keep
- Release objects purposefully
- Uses thumb while grasping
- Turns wrist
- Bangs on items with fist
- Crosses midline
- Grasps with both hands
- Pushing motion/batting

Video Example: Little Room

- Similar movement patterns of the arms as when he explored the Slinky
- Accidental and purposeful grasp and release, grasp and keep
- Grasps and brings to mouth

Video Reflection: Little Room

- Pushing/batting with more open hand
- Appropriate materials in Little Room to provide increased feedback

Video Example: RJ

- Increased wrist/elbow flexion
- Appropriate materials allow for increased exploration

Video Reflection: RJ

- Pushing motion → opening index finger and thumb to attempt grasp
- Do not “chase” the child’s hand with objects

Video Example: Zain

- Difficulty controlling movements
- Initially uses a raking motion to explore
- Altering the position of objects/keeping objects in place can lead to slight changes in finger/hand movements

Video Reflection: Zain

- Set up environment at current developmental level, with slightly greater challenges that promote skill development

3-5 Months Old

- Provide opportunities for pushing, batting, scratching to explore environment
- Motivating feedback will provide further movement
- Encourage any kind of grasp, grasp and release, grasp and keep
- Use appropriate materials and Active Learning environments to promote independent engagement
 - Little Room
 - Elastic board
 - Position board
 - SPG board
 - Velcro vest
 - Scratching board
 - Support bench

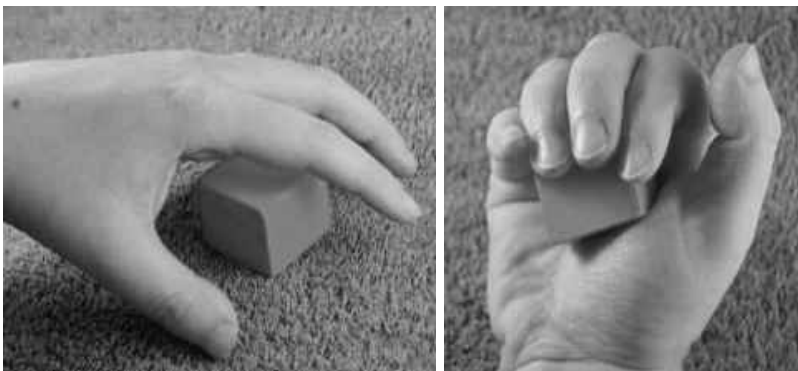


Figure 8: Hand on left picks up block. Hand on right closes fist around block. (Images from goldenreflectionsblog.com)

Hand Position/Grasp	Activities of the Hand
<p>6 months</p> <ul style="list-style-type: none"> • Immature raking of small pellets • Transfers objects hand to hand <p>7 months</p> <ul style="list-style-type: none"> • Radial palmer grasp with cube • Rakes a pellet into palm • Pulls peg out <p>8 months</p> <ul style="list-style-type: none"> • Holds an object in each hand • Holds pellets between thumb and curled index finger 	<ul style="list-style-type: none"> ○ Bangs with toys ○ Grasps feet ○ Makes shaking motion ○ Holds two objects ○ Bangs objects on table

Video Example: Jordan

- Sitting-up Little Room
- Uses 2 hands to hold objects
- Increased dexterity for exploration

Video Example: Desmond

- Banging on a surface with an open hand vs. using a tool

Hand Position/Grasp	Activities of the Hand
9 months <ul style="list-style-type: none">• Radial digital grasp with cube• Inferior pincer grasp with pellet	<ul style="list-style-type: none">• Handling of objects• Releases objects into air• Rotates the wrist• Throws toys appropriately• Picks up objects within reach• Pulls heavy objects• Bangs objects together
10 months <ul style="list-style-type: none">• Isolates fingers and pokes• Clumsy release of cubes into box• Pincer grasp	
12 months <ul style="list-style-type: none">• Neat pincer grasp• Stacks 2 blocks• Precise release of cube into box• Clumsy release of pellet into bottle	



Figure 9: Top left: radial palmar grasp with cube; top right pincer grasp with cube; bottom left pincer grasp with pellet (images from goldenreflectionsblog.com and photographersdirect.com)

Video Example: Jevarias

- Difficulty rotating wrist to activate rain stick
- Compares new activity to preferred activity

Video Example: Dameon

- Activities to assist with isolating finger movements to further develop pincer grasp
- Use objects with grooves/contours/holes

Video Example: Dureyea

- Taking objects apart
- Putting things together
- Banging objects with 2 hands

Conclusion

- All children with multiple disabilities, including autism, cerebral palsy, cognitive delays, and visual impairments can benefit from an Active Learning approach.
- Activities should be presented at current developmental level and provide new appropriate challenges.
- Avoid using hand-over-hand to make children participate.
- Next webinar: how children utilize their ability to grasp to engage in more constructive activities

Notes:

Penrickton Center for Blind Children



Figure 10: Penrickton Center for the Blind logo

Perkins School for the Blind E-Learning



Figure 11: Perkins eLearning logo

Texas School for the Blind & Visually Impaired Outreach Programs



Figure 12: TSBVI logo



"This project is supported by the U.S. Department of Education, Office of Special Education Programs (OSEP). Opinions expressed herein are those of the authors and do not necessarily represent the position of the U.S. Department of Education."

Figure 13: IDEAs that Work logo and OSEP disclaimer.

