Active Learning Principles

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This powerpoint covers the following topics:
Participants will be able to:
1. Share basic information about Active Learning with someone else
2. Identify the role of play in learning

It will take approximately 45-60 minutes to present.
About this session

This session focuses on two aspects of Active Learning principles: Pathways to Learning and the Dynamic Learning Circle.

This presentation utilizes content on Active Learning Space, a collaborative website developed by Penrickton Center for Blind Children, Perkins School for the Blind and Texas School for the Blind & Visually Impaired.

As you introduce the session, encourage participants to go to the Active Learning Space website on their phone, tablet or computer. The url is www.activelearningspace.org
Learning Objectives

Participants will be able to:

1. Explain the concept of Pathways to Learning and utilize this information in planning for student instruction.
2. Explain the concept of the Dynamic Learning Circle and utilize this information in planning for student instruction and troubleshooting issues that may arise.

Participants will be able to:

1. Share basic information about Active Learning with another individual
2. Identify the role of play in learning
Section 2

Pathways to Learning and the Dynamic Learning Circle
Every child has a unique way they access information based on their specific disabilities, available sensory information, and their ability to move their own body.

Dr. Nielsen refers to these as Pathways to Learning.
Pathways to Learning

What are “Pathways to Learning”?

Share this 15 minute video with participants or ask them to watch it in advance of a flipped learning session.

Pathways to Learning - https://library.tsbvi.edu/Player/15187 – approximately 15 minutes
Pathways to Learning

A child with special needs is:
• a life-long learner
• learn according to her level of physical, mental and emotional capacity
Learning is restricted by lack of learning opportunities in meaningful learning environments.

A child with special needs is a life-long learner, just like her peers. Like her peers, she will gradually learn according to her level of physical, mental and emotional capacity. Learning is therefore restricted only by a lack of learning opportunities in meaningful learning environments.

Ask your participants to share what they think this means and whether they agree or disagree with the statements?
If you agree with the previous statement, then our role as educators becomes clear. We have to be the ones to develop the environments and activities matched to the learners’ skill levels and interests. But how do we do that?
We do this by thinking through our construction of activities and environments and building them with specific purpose. We select appropriate equipment, preferred activities and materials that will motivate our student, and choose the appropriate level and method of interaction to meet the learner’s social and emotional needs.

These are the things we must consider for our Active Learning students when we plan activities for them and create specialized learning environments. Will our plans: Facilitate learning at any time and any developmental level? Encourage active exploration and experimentation? Enable learner to repeat activities? Enable learner to be active without interference from others? Allow learner to use previously achieved skills? Enhance learner's self-esteem?

What is the first step to doing that? Consider the student’s specific Pathways to Learning.
With a new student you may have very little information. Use this as a pre-assessment process. Make your best guess based on what you can observe and what you know about the learner and the learner’s disabilities in these six areas.

We recommend you use the Active Learning Planning Form to capture this information for planning. You can find this form at http://www.activelearningspace.org/program-planning/active-learning-materials-and-activities-planning-sheet or in the supplemental handouts.

****The trainer may want to share this form with their participants at this time or wait until they get to Program Planning.

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Pathways to Learning

What Are the Pathways?

In order to do this the adult must first become aware of the available "pathways to learning" each child possesses. These pathways include:

1. Sight
2. Smell
3. Taste
4. Touch
5. Hearing
6. Movement
You may want to provide activity sheets with blank forms containing the pie-charts like Patty Obrzut uses or use the Active Learning Materials and Activity Planning Sheet (http://www.activelearningspace.org/program-planning/active-learning-materials-and-activities-planning-sheet). Afterwards share your results in the next slide and see if they have a difference and why.

Some things might vary a bit from yours if they know a lot about cortical visual impairment for example they may question what Phase the student is in? A child in Phase 1 may have very little use of vision while a student in Phase 3 may have quite a bit of vision to use for learning. If they don’t understand the impact of a mild hearing impairment on learning they may over- or underestimate its impact.
This is one possible drawing. You can share with your group and see how theirs's is alike and different.

There is no absolutely right answer because you don’t have all the information you need. That is why this is a pre-assessment tool. It only gives you a place to start in creating environments and activities. Diagnostic teaching and more formal assessment will be needed to really develop activities and environments to match your student’s individual needs and preferences.

Now ask participants to think of one of their students and develop a Pathways to Learning graphic for him or her.
Once we know which Pathways work best for a student we can look at what their likes (appetites) and dislikes (aversions) are to further determine elements that are more likely to get their attention and create interest.

You may use the Active Learning Materials and Activities Planning Sheet to list some of the things that your student likes or dislikes. This should include objects and object properties, people, sensory sources, and activities that either interest or cause a negative response in the student. You may download blank forms to use with your student in both Word and PDF formats.

With a new or unfamiliar student you should consult with the family and others who have first-hand knowledge of the learner as your starting place. You can continue to add to the list as you observe the child and try out things with him.
The Dynamic Learning Circle is very important and often difficult for people to relate to the effectiveness of their instruction. Besides being a paradigm for thinking about learning, educators can use these to problem-solve why learning might not be taking place as effectively as they hope. The Dynamic Learning Circle is a tool to use in diagnostic teaching with these students.
When introduced to a new task, object, or activity all learners go through four stages of learning. This is described by Dr. Nielsen as the Dynamic Learning Circle.
There is no way to predict how long a learner will stay in a particular stage during any activity or experience. It depends on what he can learn based on skill and interest and how long it takes for him to be ready to learn something new.
You can take any learning activity and observe a child to determine where the child is in the Dynamic Learning Circle. This is important because it helps us identify problems and solve them.

If a learner continues the same action on an object and seems to lose interest we may need to add a little novelty.

If a learner demonstrates self-injurious, self-stimulatory, or aggressive behaviors in learning environments this might mean that we are not providing the appropriate activities to keep him interested and active. We might need to re-think the materials we use or the people who are interacting with the learner when this occurs.

Think about what might be occurring in a particular activity or environment when you don’t see learning taking place. Where in the Dynamic Learning Circle is the breakdown occurring? How can you fix it? Do you need to change materials in some way to better engage the child? Does the child have the skills needed to act in an environment or activity? Are your expectations too high or too low? Is the child bored with the activity? How can you introduce novelty?
Stage 1 of the Dynamic Learning Circle, is the point when the child becomes aware and interested in something or someone in his or her environment. Awareness occurs once accidental movements become purposeful. Patty Obrzut, Assistant Director for the Penrickton Center for Blind Children, discusses this stage of the Dynamic Learning Circle and how it relates to Active Learning. Let’s watch.

You may share this in the face-to-face situation or possibly ask participants to review this (and other Dynamic Learning Circle videos) prior to discussing in a flipped or blended learning training.

Stage 1: Aware and Interested – approximately 5 minutes
A basic principle of Active Learning is that it moves from reflexive to purposeful movement. This is what happens in typical human development as well. However, the reflexive or unintentional movement may occur as a result of the disability such as a spastic reflex. Watch to see if the child shows awareness of his own movement or sensory activity.

Does something about the object or activity create awareness. For example, touching a toe to water might cause the learner to immediately become aware of it, but if he withdrawals it quickly does he come back to it again, even briefly?

For some students, especially those who are very social, the appearance of a favorite individual may immediately get their attention. Watch to see (if the student is visually impaired) how the first become aware of that person: by the sound of their voice, by the smell of their perfume, the feel of their hands? This may give you additional information about preferred Pathways to Learning.
It is important to be able to identify when and if the learner becomes aware and interested in the learning environment.

**Look at this short video clip (embedded in the powerpoint) with participants and then discuss whether Jack is aware and interested in his environment. How can you tell? What behaviors let you know that? Can you guess what type of sensory information gets Jack attention?**

**** Jack seems to notice the drum paddle when he bumps it. It seems likely the sound interests him as well.

**This activity should take about 2 minutes.**

Can you share an example of seeing a child become aware of interested in a particular learning environment?

Story from Kate Hurst: A student who had severe CP, visual impairment and seizures spent most of her day with her arms crossed, hands fisted and legs scissored. Her teacher reported that she didn’t move at all except for kicking her leg in a spastic response from time to time. She was put in a Little Room loaded with many items, and a set of Melamine plates were hung near her feet. She did nothing for about 5 minutes, then experienced the spastic kick which caused her to know against the
plates and make a loud noise. She was very startled by the sound and became very still for another minute or two. Then the kick happened again. We knew at that point that she was aware and interested in the sound she heard.

So to finish the story .....she startled a little, but her countenance changed. Within a very short time she kicked the plates again. This time however, it looked intentional. She remained in the Little Room for almost 45 minutes. She repeated the action again and again with shorter and shorter breaks between her action. Then her arms and hands relaxed and opened and she touched some other objects. Her legs did not go back into their normal scissored position while she was in the Little Room. She did not explore other items in the Little Room, but she did engage in intentional, repeated kicking for the rest of the time she was in that environment.
Every child is different. Some have difficulty moving intentionally and may only have reflexive or unintentional movement. Other children may be very insecure or stressed and need a long time to just be in an environment before they can attempt to move. Whatever the child needs in terms of time we have to give them that time. If we have selected materials and activities that target their preferred Pathways to Learning, we have a greater chance of making that occur.
In trying to get the student to be aware and interested in something (Stage 1) there are some specific things to keep in mind. Here are few tips:

Do not perform hand-over-hand and bring child’s hand to object as this promotes passivity and touch aversion.

Hold object still or position it so it almost touches the child’s body and wait for the child to move.

Don’t talk or disrupt learning; wait for the learner to take a break and make brief comments.
Stage 2 of the Dynamic Learning Circle, is the point when the child becomes curious and actively engaged in experiencing something or someone in his or her environment. The learner is independently active - experimenting, exploring, and interacting with the environment. Patty Obrzut, Assistant Director for the Penrickton Center for Blind Children, discusses this stage of the Dynamic Learning Circle and how it relates to Active Learning.

You may share this in the face-to-face situation or possibly ask participants to review this (and other Dynamic Learning Circle videos) prior to discussing in a flipped or blended learning training.

https://library.tsbvi.edu/Player/13137 – approximately 4 minutes
This is the stage when it is evident the child is engaged with the activity. You will see repetition of his own activity on the object or in the environment. This is how the child develops a memory of the action or activity so he can recall it and start building a framework for new learning.

When the learner knows what he can do, he may become more aware of someone doing the same thing. That might lead him to try to imitate what the other person is doing.

When we share our comments during the time the learner takes a break from his or her activity during interactive situations the child knows what we are talking about. We want to keep comments brief and vocabulary consistent.

During independent learning activities, we may want to wait until the child has finished the activity and then review it with him briefly. We can use real objects to support our review and try to give opportunities for the child to comment using behaviors (smile), gesture, or action on the object (reaching for it when you mention it).

The confidence the child gains in his own ability to make something happen helps develop his confidence, an important part of healthy emotional development.
All this leads to more willingness and interest in sharing experiences of all kinds with others. This is an important step toward learning from others.

In Stage 2 the learner becomes **curious and active** which may lead to:
- repetition of own activity
- establishing memories of own activity
- experimentation, exploration, and comparison of objects
- imitation of activity of others
- response to verbal and non-verbal communication of others
- initiating activity
- sharing experiences with others
Here are some things to keep in mind related to a child in Stage 2 of learning:

We must allow the learner the freedom to explore and experiment independently in any way he chooses with any part of his body. Don’t try to show him “the correct way” to play with something. Mouthing is often a concern, for example. Mouthing develops important tactile recognition skills, helps in the development of important mouth muscles needed for eating and speaking. Don’t stop that behavior because you think the learner is too old to mouth things. If he is doing it there is a reason for it.

Throwing is another...that is why Dr. Nielsen invented the position board. It allow a learner to throw object over and over until they are ready to learn something new. Typically developing children do this as well, then move on to other behaviors when they become tired or bored with that game.

Make sure the learner has plenty of opportunities to continue to practice skills so that these skills become automatic, or as Dr. Nielsen puts it, part of his personality.
Stage 3 of the Dynamic Learning Circle, is the point when the child stops learning about something or someone in his or her environment. The activity or action becomes familiar enough that it presents no more challenges to the learner; it has become "part of his personality".

**Patty Obrzut, Assistant Director for the Penrickton Center for Blind Children, discusses this stage of the Dynamic Learning Circle and how it relates to Active Learning.**

You may share this in the face-to-face situation or possibly ask participants to review this (and other Dynamic Learning Circle videos) prior to discussing in a flipped or blended learning training.

[https://library.tsbvi.edu/Player/13138](https://library.tsbvi.edu/Player/13138) – approximately 2 minutes
Stage 3 signifies that the child or adult has learned all that he/she can given the resources provided at the time.

The individual may interact with the activity for a short period of time or begin to look bored.

The child or adult may participate in a stereotypical way.

Adults who interact with this learner may say things like "he/she used to like the activity, but doesn't anymore and I don't know why."

Stage 3 the learner completes learning with an activity.

The activity is repeated to such a level that it becomes part of the learner’s every day actions and patterns.

The activity or action becomes familiar enough that it presents no more challenges to the learner.
Dynamic Learning Circle

Do you have an example of a child in Stage 3 of the Dynamic Learning Circle?
What behavior(s) helped you know this was Stage 3?
What did you or could you do to this activity to help re-engage the learner?

Ask your participants to share with their shoulder-partner or small group examples of when Stage 3 has occurred with a student they know.

Do you have an example of a child in Stage 3 of the Dynamic Learning Circle?
What behavior(s) helped you know this was Stage 3?
What did you or could you do to this activity to help re-engage the learner?

See if few individuals are willing to share an example with the larger group.
When the learner has gotten everything he can out of an activity he will become board or habituated to it. You typically see him playing briefly with a preferred item then loosing interest with it. At that point you may begin to observe self-stimulatory behaviors or see the child go to sleep, fuss, or refuse the activity each time it is offer. This usually means that the object or activity needs to be changed slightly so the learner discovers some new feature or skill to re-engage his interest.

Adults may say things like, “He used to like the activity, but doesn't anymore and I don't know why”

We often see students who have a switch or button toy that repeats sounds. Many times that device has become something that they don’t show real interest in, but rather seem to play with unconsciously. They press the button over and over, without really stopping to listen to the sound. This is a great example of habituation.
Stage 4 of the Dynamic Learning Circle is when the learner is ready for new challenges, which will lead to new awareness and interest. Patty Obrzut, Assistant Director for the Penrickton Center for Blind Children, discusses this stage of the Dynamic Learning Circle and how it relates to Active Learning.

You may share this in the face-to-face situation or possibly ask participants to review this (and other Dynamic Learning Circle videos) prior to discussing in a flipped or blended learning training.

https://library.tsbvi.edu/Player/13139 - approximately 4 minutes
Stage 4 signifies the need for NEW experiences, NEW challenges, NEW activities, and NEW interactions providing a basis to start all over again in stage one and repeat the dynamic learning circle.

It is important that the new challenges and activities are only slightly different than the previous ones and are within the learner’s developmental level.

When new experiences are too difficult or too easy to attain, the child or adult may shut down and refuse to participate, exhibiting frustration through self-injurious or aggressive behaviors, or demonstrating stereotypical activity.

As the adult’s thinking about setting up the new experience we have to know what the learner has been able to do before in a particular learning environment or activity. We have to take an interest in all that the child does and what motivates him to be able to do this.
Add novelty by the “teaspoon not bucket”. Novelty and change should be very slight. For example a child who can pick up a ping pong ball with both hands might not be able to tackle a shape sorter.

Make sure the new activity does not require skills the child is not yet demonstrating at least occasionally. This means we have to notice and document emerging skills. Using the Functional Scheme can help us identify skills that we should begin to see developing within the child’s current level or just slightly higher.

Make changes that might allow the child to discover a new skill while still practicing an old skill. Think about utilizing materials and activities that allow practice on the old skill and perhaps discovery of a new skill. For example, a child who is learning to grasp wooden things with slime profiles on a Position Board. Adding a wooden wind chime might allow him to continue to practice grasping and also begin to shake part of it.
Things often go wrong in the Dynamic Learning Circle. It is the adult’s role to problem-solve a solution to keep the student moving forward in the Circle. 

Listen to what Patty Obrzut has to say.

Share this video with your participants (When Things Go Wrong at If you are using flipped learning you may want to ask participants to view this video prior to meeting.

Ask participants to visit with their shoulder partner and share an example from their own experience of something going wrong in the Dynamic Learning Circle. Then try to think of what they could do to address this problem.

Take about 3 minutes to complete this activity.
Credits

This content was developed by Texas School for the Blind & Visually Impaired Outreach Program and may not be used without their express permission.

This content is based on the Active Learning Space website, collaboratively developed by Penrickton Center for Blind, Perkins School for the Blind and Texas School for the Blind and Visually Impaired. Special contributions of content and images of Active Learning instruction comes from Narbethong State Special School in Australia.

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