Reading Assignment

Ivan Sanchez - September/2020

Adventures in Accelerated Learning

https://www.agilecoachjournal.com/2010-06-28/adventures-in-accelerated-learning

Roger Brown's journey of figuring out why practical, student-led exercises are critical to learning.

His insight is that those techniques are also useful in his coaching practice, in helping people find their own solutions.

He suggests applying the following:

- **Provide a safe environment** by taking care of people's basic needs and enabling people to express themselves.
- **Create a space rich in sensory stimulation** with images, colours, and sounds to help the brain build more robust neural networks.
- **Involve the whole body** for faster learning.
- **Promote spontaneity within a visible structure** of what happened, where people are going and allow things to emerge along the way.
- **Link the topic to the participant's prior understanding of the world,** so the brain is open to assimilating new knowledge.
- **Work in small collaborative groups** for higher creativity and promoting learning by sharing experiences.
- **Have fun** because people learn quicker that way.
- **Plan to cover the essentials and no more** by designing clear learning objectives and letting go of pet topics.
- **Park your ego at the door** and accept that learning is not about the person bringing the content.

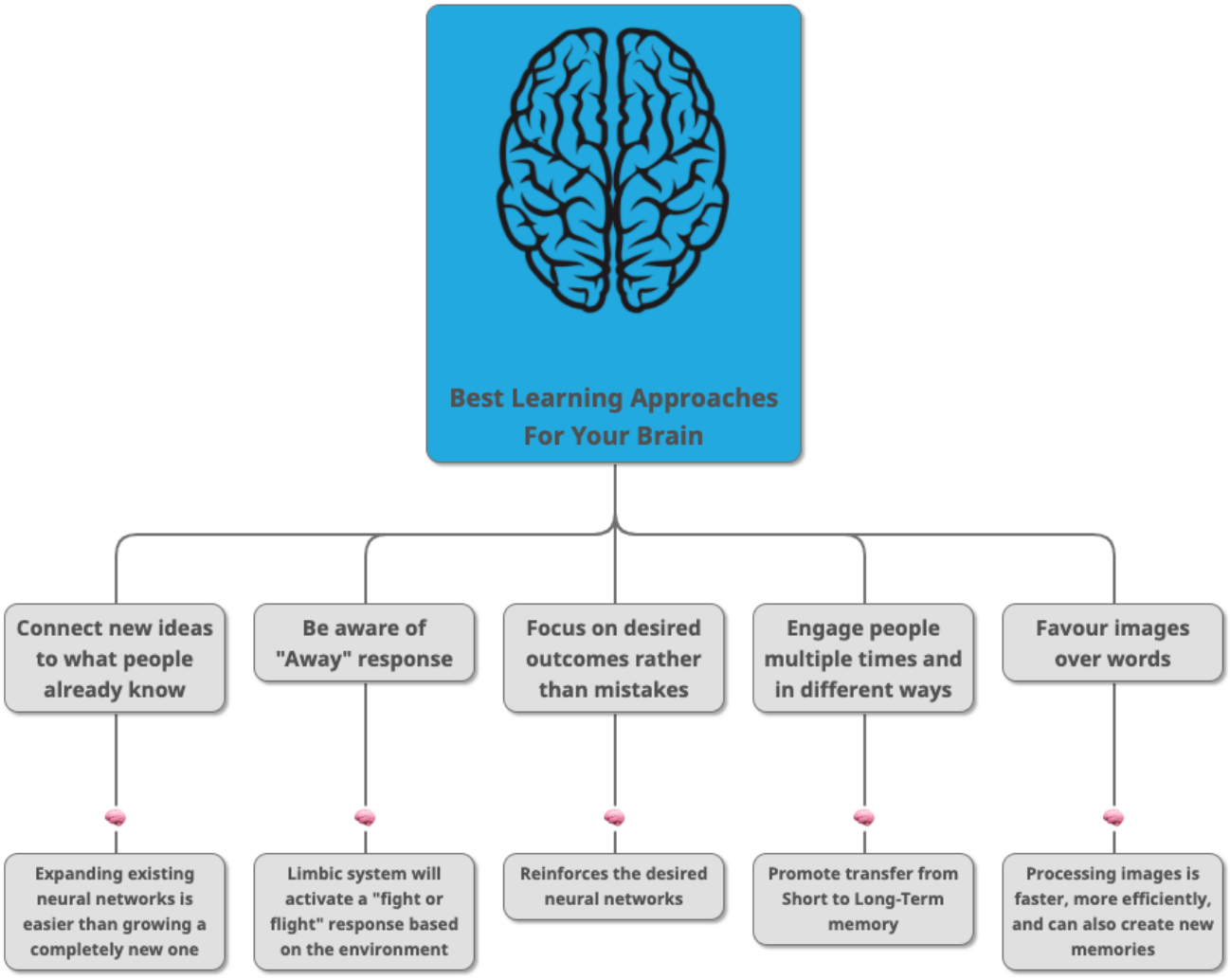
He also suggests applying the 4 Cs (even though he doesn't call by this name). Starting from a **clear learning objective**:

- Identify activity to **connect** the concept with something people already know.
- Let people learn the **concepts** from each, the environment, or present them briefly.
- Have an exercise to allow people to have **concrete practice** in the new concept.
- Include a short **conclusion** activity that reinforces the learning.

📚 *Super Learning techniques* (Georgi Lozanov and Ivan Barzakov)

The Science of Learning: Best Approaches for Your Brain

https://www.infoq.com/articles/science-of-learning/



Our brain's neuron connections don't stop changing by the time we reach our teenage years. The rate of changes after this age may slow down, but the neuroplasticity of the brain is ongoing, which means new connections can grow, be strengthened, weakened or even disappear along the years.

Some ways to take advantage of our brain's mechanic to create better learning:

Connect new ideas to what people already know

One way to help people learning new abstract concepts is to connect the new ideas with the audience's existing knowledge using *open-ended questions* such as:

- "What does that make you think of?"
- "Is there some part of this that rings a bell for you?"
- "What is the first thing you thought of when we began this topic."

That's why kids learn math better by using physical objects. Or developers get unit testing quicker if they see an actual test running. In both cases, they derive the theory from concrete examples.

The explanation at the brain-level is that expanding an existing neural network is easier than growing a completely new one.

Be aware of the “away” responses

The brain (limbic system) will drive our behaviour based on how the environment makes us feel. Some examples:

Your brain will want to make you go away and not learn when:

- You don’t want to be there (boss sent you).
- You feel intimidated by what you’re there to learn.
- You have trauma from past learning experiences (bad teachers).
- You fear to look stupid.
- You are not familiar to anyone else in the room.

Conversely, you can make your brain generate a positive response towards learning if:

- You have time to get to know your colleagues, even if briefly.
- You feel in control of what you’re about to learn.
- You have the option to skip any activity that could make you uncomfortable.

Focus on desired outcomes rather than mistakes

Our brain will reinforce the networks that receive more stimuli. So, it’s more important to focus on how better would look like rather than each mistake that has happened.

Engage people multiple times and in different ways

Short-term memory is good for up to a few hours. That’s why watching an instruction video or just taking notes is not enough. We need to engage as many parts of the brain for a more extended period to acquire long-term knowledge.

Inviting participants to discuss ideas during breaks to create and perform a play is an excellent example of how to make knowledge stick. Games, varied exercises and media-rich exercises are other effective ways to stimulate long-term memory.

Favour images over words

Our brain has fast, efficient, visual processing. It takes less energy to process images than words. Hence, pictures, storytelling, and metaphors are desirable as they also create a hook to remember information in a later date.

When pictures are hard, an easy alternative is to explain ideas in terms of real people and interactions rather than using complex abstract concepts.

📚 Norman Doidge’s “The Brain that Changes Itself”

Powerpoint® Unplugged - Part One: 7 Ways to Transform a Slide Show into a Learning Tool.

https://bowperson.com/wp-content/uploads/2014/11/PPTUnplugged.pdf

"Powerpoint is a presentation tool that is a trainer's joy and the learner's nightmare".

--Sharon L. Bowman

Powerpoint was never designed to be a learning tool, so here are seven suggestion to make it better:

1. **Cut the number of slides in half**
    a. Use other media for the information
        i. Handouts
        ii. Charts around the room
        iii. Singe pages taped on the back of chairs
    b. Make people move to hunt for information
2. **Use images to teach concepts**
    a. Make it large and clear
    b. Stories, metaphors, analogies, real-life examples also create mental images
    c. The more concrete, the better
3. **Use the need-to-know versus nice-to-know rule**
    a. Only need-to-know on slides
        i. Nice to know in resource packs
    b. Ask: What information lacking would cause them to lose their jobs?
4. **Keep it simple**
    a. No paragraphs, sentences, fillers
    b. Essential words only
5. **Lose the template**
    a. The attention drops when slides are boring
6. **Check for distance and colour**
    a. 30-point font size or larger
    b. No script fonts
    c. Black print on a white background is the easiest to read
    d. Test on your computer by standing 5 feet away
7. **Use the 10/20 rule**
    a. Segments of 10 minutes:
        i. Then pause and ask questions, ask for comments, do a quick review activity
    b. Get people to move every 20 minutes:
        i. Stand and stretch
        ii. Take a deep breath
        iii. Write on wall chat or note-taking page
        iv. Form standing groups to talk about the content
        v. Turn to the person next to them and ask a question.

"Small, simple changes make all the difference. Go for it!"

The Magic of Metaphor!

https://bowperson.com/wp-content/uploads/2014/11/MagicOfMetaphor.pdf

"Metaphoric thinking is probably one of the most powerful ways of describing and understanding a concept or idea."

--Sharon L. Bowman

Left-brain learning	Right-brain learning
Lecturing Reading Outlining Test-taking	Games Storytelling Drawing Metaphors

Metaphors are mental pictures, and they stick on the learner's head.

How do you create them? By letting learners construct their own!

- By using a common machine
  - Use typical day-to-day machines to describe the topic and either describe or draw it.
- By filling the blank
  - Ask "How is <topic> like a bridge?" and let them create answers.
- By drawing inspiration
  - Tell them to pick something nature, science fiction, sports, cooking, history, or music.

Other ideas:

1. Finger traps: Give them minutes to put traps in all their fingers and try to take them out without tearing. "Name ten ways this experience is like <your topic>"
2. Balancing clowns: ninety seconds to connect an arbitrary number of plastic balancing clowns.
3. Pipe Dream: Scrunch a foot long fuzzy pipe cleaner to represent the topic
4. Laser Amazer: wear Lazer Amazer glasses while stating ten ways the glasses are like what they've learned
   a. Use those for note-taking (writing on them at different times)
   b. Attach items to it to represent the information you just learned
5. Cube Puzzlers: give them at start of training with a note that reads "Puzzled about ____". Ask them to fill it in, and at the closing, state something they learned and are no longer puzzled.
6. Rewards: use toys and metaphors to reward participants:
   a. High five: give a back scratcher to funny/worthwhile idea.
   b. Feather in your cap: give colourful feathers for participation in a particular activity
   c. Tooting your own horn: when someone has a bright idea, passes a toy party horn for them to play.
   d. Penny for your thoughts: reward for contribution. Participants to exchange for prizes at the end.
   e. Worth your weight in gold: gold coins for a sweet participation
7. Uncommonly common:

    a. Groups to pick one of five common household objects to brainstorm and write how the way the learning can be represented by the object they chose. Share afterwards.
8. Children's game:
    a. Beachball Toss, as a metaphor for a topic like effective communication.
    b. London Bridge for steps in a process.
    c. Cat and mouse for problem-solving.
    d. Tag for internet information.
9. Thorns and roses:
    a. At the beginning of training, ask participants to introduce to a partner and share one thorn (downside/negative aspect of the topic) and one rose (upside/positive aspect).
10. Metaphorical training themes:
    a. Tie all information and activity from your training around a common, entertaining theme. Use toys/props.
    b. Other examples are murder mystery, baseball, Disney cartoon, an ocean voyage, carnival, safari, sailing, famous people, TV game show, surfing (the net), gambling.

Rule of thumbs for good metaphors:

- **Everyone must understand it.**
- **Most people should relate to it.**
- **Must not offend (gender, culture, generation).**
- **Is not the only way to connect to the topic.**

📚 George Lakoff and Mark Johnson's "Metaphors We Live By"

Make Your Next Training an EPIC Experience!

https://bowperson.com/wp-content/uploads/2014/11/EPICArticle2010.pdf

Create learning experiences that are larger than life and unforgettable by making them EPIC (Emotional, Participatory, Image-rich, and Connected)!

Emotional

The more emotionally charged a learning experience is, the more it'll be remembered. Anytime one *EPIC* element is used, it creates a positive learning experience.

Stories create an emotional connection with the information. They can also be participatory, image-rich, and connected to learner's lives.

Humour can open a space and time for learners to share their experiences.

The **pain** of a need or unresolved conflict can be used sparingly before moving into the pleasure of finding a solution. Use with caution, as it can backfire and move people away from learning.

Participatory

Participation can help connect learners to each other as well to the topic:

Neighbour-Nudge: direct learners to turn to the person next to them and talk about the most important thing they've learned so far.

Birds-of-a-Feather: forming groups, introducing themselves to their group members, and telling one thing they want to learn, one question they have, and one outcome they want, or something they already know. After some minutes, volunteers can shout out some of the comments to everyone else.

Take-a-Stand: Use opposite walls to represent opposite stands and direct learners to stand at a wall or between depending on their response. Debrief for added learning.

Four corners: use parts of the room to represent topic-related material. Learners move around and discuss.

People sorter: use small objects to sort learners into random groups. Each group with a type of object will work around a particular topic.

Image-rich

We are in an image-rich culture, and rely on images to learn and remember information. Images can be:

Metaphors give the essence of an idea by representing it with something else. They paint mental pictures that that help moving information to long-term memory. Keep them simple, in a way that everyone understands, or let learners create their own using visual or verbal cues.

Stories (see Emotional)

Illustrations (cartoon, photo, doodle, logo, shape, picture, or symbol) should be used to represent important points. Also useful to have learners creating their own.

Learning aids can be anything that helps people learn better and remember more (e.g. toys, props, tools, gadgets, skids, songs, jokes, games, movement, and music).

Connected

We learn best what's linked to what we already know.

Learner-Created Connections such as *Neighbour-Nudge* (see Participatory) allow learners to make connections on their own. Create space and time for the discussion and allow a few minutes for the connections to be shared with the wider group.

It's About Them is a reminder to bring back stories/activities to the learner's lives. Work to make your content relate personally in some way.

What's In It For Me encourages paris or small groups to discuss what they want to learn or they're taking away from what they've just heard. Use before, during, and after your presentation. Also share what you expect them to take away.

Action Plans are an effective way of closing the training by asking learners to think and write about what they want to do with what they've just learned.

Koosh Throw encourages people to share the most important thing they learned and what they plan to do with new information. Stand in a circle and throw a soft object randomly to each other. This can also be used for other reflections or appreciations.

Let's Trade requires learners to write their name and contact on the front of a card, and "I plan to ___" on the back. Then, in pairs, people exchange cards until they have read at least three of them. You can encourage people to follow up with the person on the card they got at the end of the exercise.