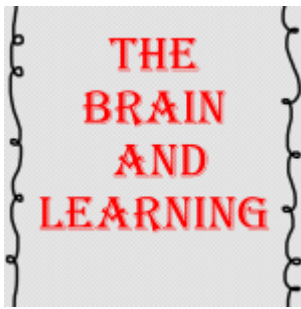


# The Brain and Learning



## **It's All About the Relationship**

Learning has much to do with the student-teacher relationship. Every teaching moment is a social interaction between the learner and the teacher. Good rapport results in higher motivation and increased quality in student work. As rapport grows, communication and participation increases due to an increase in trust.

If the relationship is negative, then less learning will take place. Some of the things that teachers should not do because it results in negative rapport are:

1. Punish the whole class for something a student or group of students did.
2. Call a student out in front of the class.
3. Allow or engage in gossip.
4. Use sarcasm at the expense of a student.
5. Not listening to or respecting student concerns.
6. Fail to follow through with what they say.
7. Give up on a student or class.

If the relationship is positive, then learning can flourish. Some of the things a teacher can do to encourage rapport are:

1. Share appropriate personal stories that involve shared interests.
2. Laugh with your students.
3. Treat students with dignity & respect.
4. Be approachable.
5. Maintain a positive attitude during times of failure & mistakes in learning.

## **Neuroplasticity**

People learn through neuroplasticity (the brain adapting & changing while growing and organizing information). New brain cells can be formed with new inter-connections. The more a person practices or studies what he has learned, the more the area of the brain becomes, allowing skill and knowledge to grow more easily. Habits and regular activities get wired into the brain. We can train our brain to do the impossible.

“... we can actually use the mind to change the brain. The simple truth is that how we focus our attention, how we intentionally direct the flow of energy and information through our neural circuits, can directly alter the brain’s activity and it’s structure.”

– Rick Hanson, PhD

## **Multiple Intelligences**

Students learn in many different ways, called multiple Intelligences. It is important to vary teaching methods so all learners have an opportunity to learn according to their strengths and also to improve their weaknesses in learning. The different intelligences are:

1. **Language-Smart (learns by listening, reading, writing & discussion)**

- Lecture & Discussion
- Independent Book-work
- Taking Notes
- Writing a Story
- Designing a brochure or magazine

## **2. Logical-Smart (learns by looking for patterns, relationships, & categorizing)**

- Problem-solving
- Debates
- Analyzing charts & graphs

## **3. Musical Smart (Learns through melody, tones, & rhythm)**

- Songs
- Jingles

## **4. Visual-Smart (Learns through pictures, illustrations, & movies)**

- Creating Cartoons or collages
- Drawing pictures or symbols
- Video Clips
- Using graphic organizers for notes

## **5. Active-Smart (learns something by hands-on activity or involving bodily movement)**

- Manipulatives
- Performing Skits or Act-It-Outs
- Stations

## **6. Intrapersonal-Smart (learns by working independently & applying individual thoughts & values to content)**

- Journal-Writing that connects personal experiences to content
- Evaluating or Ranking Information

## **7. Interpersonal-Smart (learns through group activities)**

## **involving discussion)**

- Cooperative Learning
- Socratic Circles
- Debates
- Think-Pair-Share or Numbered Heads Group Discussion

## **Stress & Emotional Learning**

- Stress can impair learning. The student should have good nutrition and sleep. They should feel emotionally safe in the classroom, where they can participate and succeed. The teacher should teach & foster positive discussion and peer interactions.
- Learners will pay more attention and learn better when emotions are involved. Therefore the teacher should stimulate emotions by connecting content to students' lives.

## **What Else Should Teachers Focus on?**

Teachers should focus on one topic or skill at a time because it is difficult for most people to multi-task.

Teachers should direct-teach in 10 minute increments. Activities should be structured into 10 minute or less parts. This is because studies show that it is difficult for most people to focus our attention for more than 10 minutes at a time.

Short discussion or higher order thinking tasks involving content should be interspersed every 10 minutes because learning is more than memorizing facts. It's more about developing critical thinking skills.

Teachers should help the student make connections between concepts & information because people remember patterns better than details.

Teachers should repeat important information throughout the

class period and spiral content all year because repetition is beneficial to long-term memory.

## **Conclusion**

The brain has much to do with how students learn. Teachers should maintain rapport as best they can. Multiple intelligences should be evident in their teaching. Stress should be minimized in the classroom environment emotionally. And teachers should engage in teaching practices that support what we know about how the brain works.