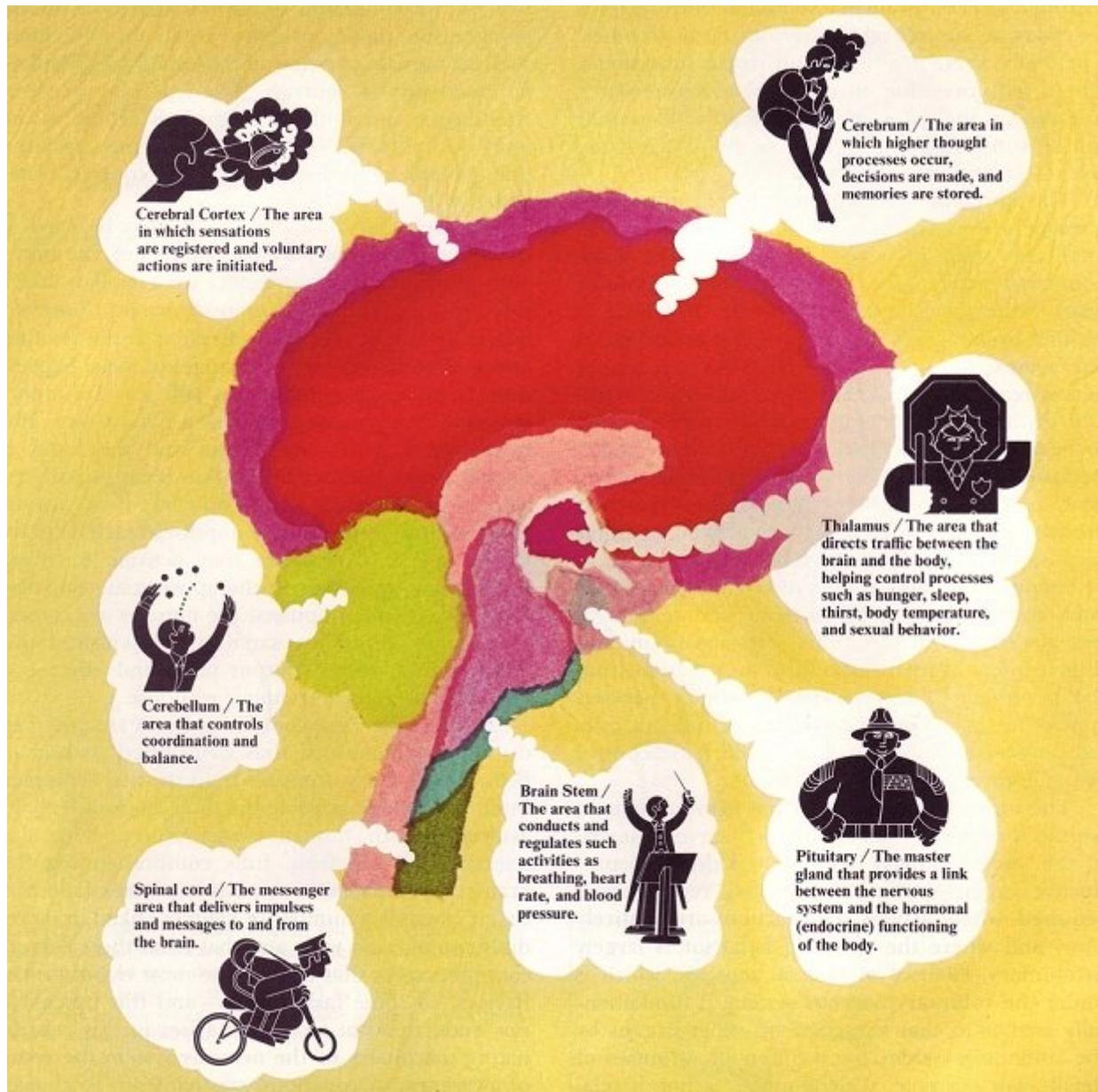


## Educational Psychology: 20 Things Educators Need To Know About How Students Learn

Posted by [Andrianes Pinantoan](#) on Monday, October 1, 2012



Aside from comprehending the curriculum content, teachers should have a basic understanding of how people acquire and absorb knowledge.

The following list highlights 20 principles of learning every teacher should know.

### 1. Students Learn Differently

It may seem obnoxiously obvious, but how many classrooms are currently designed with one learning style in mind?

Worksheets and flashcards work well for students who absorb knowledge visually, but for a child who needs to hear the information in order to grasp it, traditional methods of teaching force him

or her to use a physical sense that is not as well-developed.

The visual learner doesn't have the same opportunity to stretch his or her other senses. If a teacher comes to the classroom with the basic knowledge that students learn differently, they will be better equipped to arrange the lessons in such a way that all senses are activated.

## **2. Reinforce**

Take geography as an example. If a teacher is instructing a class of kids about the fifty states and capitals in the United States, it should be reinforced three different ways.

For the visual learner, use maps and worksheets. For the auditory learner, create a song that helps them remember what state and capital go together. For kinesthetic learners, activate the body. Perhaps a teacher could do hand motions with the song, or do a map game on the floor, where students have to hop from state to state as the capitals are called out.

## **3. Consider Kinesthetic Learners**

Of all three types of learning, the kinesthetic learners are the hardest bunch to teach in a traditional setting. Oftentimes, they need to touch, taste, and move through knowledge in order to absorb it. This requires space and opportunity that many traditional classrooms do not allow for.

Kinesthetic learners need to be allowed to try something, watch it fail, and learn from the experience. While this can be difficult logistically with a large class, implementing kinesthetic strategies will not just help a few kids, but will stretch the other students who aren't naturally bent towards that type of learning.

## **4. There Are Seven Learning Styles**

Taken from [Learning Styles Online](#).

**Visual (spatial):** You prefer using pictures, images, and spatial understanding.

**Aural (auditory-musical):** You prefer using sound and music.

**Verbal (linguistic):** You prefer using words, both in speech and writing.

**Physical (kinesthetic):** You prefer using your body, hands and sense of touch.

**Logical (mathematical):** You prefer using logic, reasoning and systems.

**Social (interpersonal):** You prefer to learn in groups or with other people.

**Solitary (intrapersonal):** You prefer to work alone and use self-study.

## **5. Make It Relevant**

Information is only stored permanently when it relates to day-to-day living. For example, math concepts must be reinforced in real life examples or the student will have no reason to absorb the information beyond the exam.

History is one of the more difficult subjects to bring into the present, since it mainly deals with past events, dates, and people. Finding strategies to bring it to life will help with learning.

As much as possible, history should be experienced through first-hand accounts, museums, field trips and other enrichment activities.

## **6. Failure Is a Fabulous Teacher**

People learn from failure. In fact, ask any major successful person what helped them and usually it will involve a story that harkens back to a big "mess-up". Failure teaches even better than a perfect score on a test.

Classic grading systems don't help with this theory, as grades have become inflated, feared, and used as judge and jury about who learned what. Contrary to popular belief, learning from failure is anything but easy. It's not just about "reflecting" upon what you did.

If you'd like to read about failure and learning, check out [this Harvard Business Review article](#) – the article is mainly about organizations but its lesson apply as much to classrooms.

## **7. Integrate The Curriculum**

Rather than keeping each subject separate, curriculums that use thematic units work well to blend knowledge together in a way that is useful and memorable.

For example, a unit on Egyptian history could incorporate history lessons, a unit on linguistics and language (with the hieroglyphics), a science unit (physics and the building of the pyramids), a writing unit (a report on a child's favorite Egyptian monument), and reading a book about the ancient culture.

### **8. Define "Learning"**

The word "learn" has various definitions. In the classroom, it can be the ability to spout back facts and information on a test. While this is one form of learning, there are other forms of learning that are just as important. Taken from [Route Ledge Education](#):

- Memorization
- Acquiring facts or procedures
- Understanding reality
- Making sense of the world

### **9. Care For Introverts**

When Susan Cain released her book, [Quiet: The Power of Introverts in a World That Can't Stop Talking](#), earlier this year, it drew a lot of attention onto an important topic: introversion vs extraversion. The debate, of course, reached the classroom and [according to an Edweek article](#), teachers might be against their introverted students.

Are you?

It's easy to assume that "group work" is always the best approach. That students who raise their hands are attentive. And that students who prefer to work alone are loners. All of which, are not necessarily true.

### **10. Create Space**

This is a psychological and logistical suggestion. Creativity is the birthplace of true learning, where a student can initiate thoughts, ideas, problems, and make connections between concepts.

Creativity requires the activation of the right side of the brain. Space allows the opportunity for creativity to ignite. Logistically, give students a place to stretch out, move away from a desk, or gaze at the sky outside. In the context of a lesson, allow for brainstorming sessions. Leave gaps in the order so students can create their own projects using the facts and theories in the lesson.

A teacher enables a student to learn when he or she becomes a quiet mentor on the sidelines, rather than the dictator of every move or step. [\[Read more about how space affects learning\]](#)

### **11. Brief And Organized "Bites"**

When a person wants to memorize a phone number, they divide the digits into easy to remember patterns.

This is because the brain struggles to hold onto a long list of numbers, but can do so when they are organized meaningfully. The same principle applies to lectures. A 30-minute lecture that is not structured with categories, or organized into easy-to-recall bullets, will not be as effective.

Using another example, the media produces the news in sound bytes because they know they only have a small window of time in which to grab a person's attention; teachers would do well to study the marketing techniques of media in order to assemble information that is retainable.

### **12. Use Several Different Angles**

For example, if a science teacher is lecturing on photosynthesis, the students will benefit from hitting the same concept at different angles.

First, the teacher explains the overarching concept. This provides framework and context. Second, he explores each part of the process in greater detail. Third, he explains the whole process again, this time encouraging students to ask questions. Fourth, he asks the students to explain it back to him.

Finally, he takes the process and inserts it into a relevant everyday situation that stretches the students to apply the information in a real life example. As he reinforces the concept with different angles, the brain is better able to organize the information. Trying to hit all of the points in one

explanation will overwhelm most students.

### **13. Proper Method For The Material**

In the quest for “deeper” learning, some professors might dismiss the concept of shallow learning; the simple recall of theories, facts, and rules. However there is some validity to rote memorization and the ability to regurgitate rules and facts, depending on the information.

For example, to learn the multiplication tables from 0-12, shallow learning is helpful (flash cards, timed quizzes, etc.). However, implementing this technique for a history lesson will not serve the subject matter.

A student may know all the dates of important world wars, but without understanding the social themes and lessons learned from these atrocities, have they really absorbed the importance of studying history?

### **14. Use Technology**

Never before in human history has there been such unparalleled access to knowledge and information. With the tap of a tablet or smartphone, a student can get instant answers to questions that used to mean a trip to the library’s dusty encyclopedia section.

This means that memorization is no longer as necessary as it once was 100 years ago. Oral traditions and the passing along of information verbally are nearly extinct. Rather than resist the advance of technology, teachers can take the opportunity to go deeper with students, since they do not have to waste time trying to drill facts that are a fingertip away.

Rather, explore themes, study deeper sociological issues, teach the art of invention and creativity, discover the philosophy of critical thinking, and encourage innovation.

### **15. Let Them Teach**

One of the most effective methods for absorbing knowledge is to teach the knowledge back to another. Provide students with ample opportunity to give lectures, presentations, and develop lesson plans of their own.

Teachers can instruct students to create a lesson plan for a much younger child, even if the concept is difficult. This forces students to simplify the theory, find relatable stories and real life examples, and deconstruct the concepts into bite size pieces.

### **16. Create Hunger And Curiosity**

When students are interested in a subject, their ability to learn greatly increases. They have more focus, tenacity, initiative, engagement, and investment in the material. Teachers can give students the freedom to choose their own topics, which enhances a class that may be stuck in a rut or lacking motivation.

Learning how to whet a student’s appetite for information sets them up to go after the answer with a sense of hunger.

### **17. Brainstorming Not Always Effective**

The age old saying, “Two heads are better than one,” is very true. Brainstorming is thought to be the birthplace of profound ideas.

But new studies suggest that [that may not be true](#). Brainstorming introduces groupthink – a psychological phenomenon where the group forms its own beliefs – and when it doesn’t, [the most charismatic individual tend to take over](#).

In fact, Jeremy Dean of Psyblog [wrote](#) about the subject, *“... Why not just send people off individually to generate ideas if this is more efficient? The answer is because of its ability to build consensus by giving participants the feeling of involvement in the process. People who have participated in the creative stage are likely to be more motivated to carry out the group’s decision.”*

In other words, groups are not where ideas are born. Groups are where ideas are evaluated.

### **18. Forming Habits**

Psychologists agree that it takes approximately 30 days for a new habit to form. Parents who are teaching children a new routine (like brushing their own teeth) have to help their child for at least 30 consecutive days before the brain turns to “auto-pilot”.

This is the point at which it becomes a regular habit.

In learning, the same concept applies. Teachers can explain to students the importance of daily study rather than cramming information the night before. The small, incremental, and daily rehearsing of information paves a path in the brain that remains permanently.

Study habits can become regular with guided encouragement to keep going while the brain catches up to the new norm.

### **19. Feedback: Not Just What, But When**

In the same way that failure stretches a person, feedback is crucial to how students learn. When they can understand their strengths and weaknesses, accept and receive constructive criticism, and be redirected to the areas that need assistance, the overall process of learning is enhanced.

That much you probably already know.

But studies have shown that when you give feedback [matters just as much as](#) what feedback you give. Imagine taking a pill now and being able to see its effect in 5 years vs in 24 hours.

### **20. Teach How To Learn**

“Learning” is an abstract concept to many.

By helping students understand the art of learning, the techniques of learning, as well as the different learning styles, they will be empowered by the process. It can be discouraging when a new topic or theory is evasive or difficult.

Students who understand how to learn will have more patience with themselves and others as they grasp new material.

"Educational Psychology: 20 Things Educators Need To Know About How Students Learn - InformED." *InformED*. Web. 16 Mar. 2015. <<http://www.opencolleges.edu.au/informed/features/educational-psychology-20-things-educators-need-to-know-about-how-students-learn/>>.