

Classroom Enrichment: Teaching and Reaching Every Student

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“Genius is 1% inspiration and 99% perspiration”

Thomas Edison

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Introduction

Many teachers start the school-year diagnosing formally or informally their students' knowledge, abilities, skills and, whenever possible, their competences. After that, even if not explicitly, they tend to rank their students in terms of levels of proficiency, according to the stage they are in, likely due to the underlying myth of the fixed brain (Jensen 2006: IX). Some more than others, almost every teacher has at some point followed this path. It would be more challenging, though, if every teacher could follow a different approach, where each child is given the benefit of the doubt, and in the eye of the teacher, every child stood the same chance of success. Even though we are all different, it is also true that our brains are in constant change, which allows for much improvement if provided with an enriched environment.

Plasticity of our Brain

The human brain, and even more markedly the young one, is characterized by an immense plasticity. When affected by negative stimuli such as abuse, neglect, trauma,

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injury, hunger, violence, stress, prejudice and other problems, the child's brain absorbs the pain and changes after that. And if it behaves this way with negative stimuli, should it not also change when the stimuli are positive? According to Eric Jensen (2006), environmental factors contribute a great deal to alterations in the expression of genes.

Safe environment inside the classroom

Bearing these ideas in mind, it is the teacher's responsibility to provide their students with a safe environment, where each child has the right to see their word respected, where the child's questions are met with a smiling face of approval and/or encouragement. I am not defending the absence of rules and procedures and the due control of these by the teacher, though. In fact, a classroom where the teacher allows too much, too little is generally achieved. So, it is the teacher's responsibility as an adult and a professional specifically trained to deal with those specific students to create an environment in the classroom where students feel safe, at ease, respected and challenged. The human brain is a "novelty seeker" (Sousa 2001:27), which means the teacher should avoid boredom in the classroom. Students need new information on a regular basis in order to feel motivated to learn. Nevertheless, the new information alone will not suffice by itself. There must be a well chosen panoply of strategies and behaviors to address the students' eagerness to learn.

To start with, every class should begin with a warm-hearted greeting that shows students the commitment felt by the teacher towards the quality work to be done by all in class. If a student arrives later than expected, their lateness should be addressed in a positive way where intimidating words are avoided. If a teacher asks about the reasons for the delay and offers support to solve the problem, the student will probably respond far more positively than if they feel the threat coming from the teacher. Sometimes acting is a necessary capacity a teacher must use very skillfully since managing stress levels inside the classroom should be a constant worry for the teacher.

Presentation of New Material

When presenting new material, the teacher should always try to make students recall prior related knowledge so they can attach meaning to the new subject to be learned. Sometimes teachers spend too long worrying about the sense of certain pieces of information and forget the meaning those should have for students. It is meaning that

will allow students to store the information in the long run (Sousa 2001: 49). Bearing in mind that you can only recall what has been stored, if you do not store long-term, then you will forget most of what has been taught. Thus, creating meaning should be much more of a focus when a teacher is preparing a lesson.

Another great worry that should be in every teacher's mind is the choice of task and material to be dealt with. The more meaningful and coherent it is to the students, the more they will be engaged. Attentional mind-set to the task is a prerequisite to thoroughly understand the subject's intricacies and, when meaning is attached to it, neurogenesis is fostered and retention is heightened. Then, after performance, feedback should naturally follow. As to the right quantity, each teacher must be very careful to design the right one for the right person. It should not be too fast, too easy to get, too general or irritating (Jensen 2006: 83). That will only diminish the positive effect desired.

Rehearsing to Enhance Retention

It follows that a teacher should be aware of the need for repetition. Nobody learns everything automatically, neither do we store information as if we were computers. The synapses (the junctions across which a nerve impulse passes from an axon terminal to a neuron, muscle cell, or gland cell) created by the work of the brain when learning new things need to be reinforced. If they are not strengthened, they deteriorate. These repetitions should be carefully managed, taking advantage of the different times in a lesson.

Primacy-Recency Effect

As we tend to learn best what comes first and second best what comes last (Sousa 2001: 88), we should start each lesson with a "bang" of important controlled information. The degree of retention varies during each lesson, and is lower after the first twenty minutes of exposure to new information. Then we should round-off near the end, because that is another window of opportunity. When honestly thinking about many of our lessons as teachers, quite the opposite happens. We tend to spend important prime-time taking attendance, collecting homework, reprimanding incorrect behavior, etc. We are misusing important time for profitable learning. The questioning used too often to start the presentation of new material should also be handled with more

expertise. Teachers tend to ask: “What do you know about this?” And naturally students venture some answers and it is easy to accept that many are wrong. But the cruelty of this is that those answers will very probably be used by some less attentive students when asked about the subject later. And why does this happen? Because those were things said during prime-time, a time when the students are more alert and ready to take in the new information. Thus a teacher should start by teaching new material first and after that, when he realizes students are reaching down-time, they should be led to practice the new learning or discuss it with their mates (Sousa 2001: 121).

Teacher-Student Interaction

All interaction during class time should be well planned. Natural frustration felt by the teacher towards the students’ incapacity to solve a problem, due to a lack of focus, in a period of time considered acceptable should be controlled in a way that the students are not affected negatively by it. Emotions are, indeed, to take high priority during teacher-student contact. According to Daniel Goleman (1995), how a person feels about a specific situation will determine the attention devoted to it. A safe and secure environment created by a caring teacher can enhance retention quality and foster memory. On the other hand, strong negative emotions prevent conscious processing.

For us to be “successful learners and productive citizens, we need to know how to use our emotions intelligently” (Sousa 2001: 43). This is all the more important when we take into consideration that data affecting our survival are the first to be processed in our minds and immediately after come data that generate emotions. Only then come data for new learning. We are just mentioning here what is happening inside each classroom, not the possible threats felt by certain students before or after class, outside the classroom. These may be present in the minds of the bullied students too and affect their capacity to focus. Feeling emotionally secure is a prerequisite to be able to pass knowledge from working memory to long-term memory. So, first the information must make sense, i.e., the student must understand it; then it must have meaning, i.e. it must be coherent with previous knowledge the student possesses. Only then, if emotionally calm, will the student be able to store the information for future use. We have to agree that this desirable situation is not always present in our lessons: many times we present data that make sense but not always are we able to look for the needed meaning necessary for the students’ long-term storage of those same data. For the students to attach meaning to the data presented we need to consider their past experiences, not

ours. It is their life experience that should be more present, not ours as teachers. Finally, if we want to check if the information was stored for the long run, we must allow for a 24-hour period to pass. If after that period the information has not been stored, it can never be recalled. This is very important if we think about the tendency many of our students have to revise for a test the day before it. That will mean the information may never reach long-term memory. It will be kept in working memory for a while and it will be forgotten soon after.

Dealing with Misbehavior and Teacher's Frustration

When addressing students' misbehavior, teachers also need to use positive attitudes through which they show their assertiveness, their capacity to control but not lose their temper. Another situation that should always be avoided is using words that might be interpreted as an insult or mockery and which diminish students' self-concept. Using humor heightens students' engagement in what is being done, creates a very positive environment and enriches the teacher-student relationship, but when we allow it to change into sarcasm, then all can be lost. It is common to see students withdrawing by folding their arms, causing distraction with funny noises, not listening to what is being done, etc. Other times we can even see students challenging the teacher with awkward comments about unimportant things since they feel the need to defend themselves and attack the teacher that is taken for the offender. All this is better avoided than cured.

Dealing with frustration is a constant battle for a teacher inside the classroom nowadays. Many students do not work hard, or care about school; their parents do not give the due importance to school and its teachers. Students would rather have fun. It is the teacher's duty, again, to do the most important part of the work: to create a challenging environment where the subject matter at stake is valued by all involved, allowing for a safe and friendly environment that touches every student and lets the students feel that the teacher really cares. The teacher needs to have a great capacity to interpret many of the negative stimuli coming from the students towards them in a professional way. That means the teacher should know how not to answer with the same level of language, the same negativity so that no anger, frustration, sarcasm are felt. The teacher is the professional and the adult and they are the ones in control, the one responsible for those students. Students react better to a teacher who does not lose control of their emotions. When asked about their ideal teacher, many students give as

the first characteristic the fact that the teacher cares about them. After that comes the teacher's capacity to control the class. Only then comes the teacher's capacity to explain well. The success of a lesson depends a great deal on the management by the teacher of all these variables.

Multiple Intelligences

We have to be aware that, and according to Gardner (1983), students are not all intelligent in the same way. Having assumed this, it is the teacher's role to prepare lessons as varied as possible, to suit the different personalities and different learning rhythms in class. Whereas a linguistically intelligent student is eager to read and understand text, a kinesthetic student wants to do something with his own hands or wants to move around. A student with interpersonal intelligence will be eager to work in a group where he would like to share ideas. This means lessons should provide students with an environment that suits the different tastes as much as possible. We are not defending the constant presence of all nine intelligences (Gardner 1983) in every class. That would be a far too gigantic demand on every teacher, but providing the class with variety now and then would probably answer the different needs in class far better. Many schools are packed with students who do not want to be there. The world outside is waiting for them with so much to give and that reality outside is more challenging than the one they find inside school, where a teacher lectures them too often. The average retention rate after 24 hours will only be 5% when teachers use lecture as an instructional method but that rate can be dramatically increased if the method shifts to a practice by doing one: 75% (Sousa 2001: 95). So, variety is a must in all classes.

Conclusion

We could then say that by enriching the classroom with care, attention towards our students' needs, creating an enriched environment where all feel safe and wanted, (Lightbown 2006: 64), where contrast is present, we provide a much more enhanced learning climate and better results are to be expected. When positive emotional messages are constant in the classroom, when they are bonded to new learning, there is a higher chance of long-term storage happening in students' minds more frequently since emotions have a "higher priority than cognitive processing for commanding our attention" (Sousa 2001: 145). Teachers should not be afraid of showing their constant care and capacity for humor since these are essential for the building of a strong bond

between teacher and students that will allow the latter to feel safe and, above all, accepted, wanted and challenged. And teachers need to be experts constantly engaged in efforts to improve themselves (Tsui 2003: 279), always trying to work on the edge of their competence, willing to experiment new strategies that will make their teaching more and more adequate to the audience in front of them.

Key Words:

- classroom enrichment
- working memory
- long-term memory
- retention
- recall

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