

Neuroscience & the Classroom: *Making Connections*

UNIT 6: *Implications For Schools*

Section 4:

From one classroom to the whole school

The results of Nick's exercise

List of conditions that supported the group's best learning experiences:

- Because people learn best when they care and are motivated and enthusiastically engaged, they learn best what they have determined is important. They need to be responsible for their own learning.
- The need to learn must exist within the learner, so the skills and content to be learned must be connected to the personal life and interests of the learner.
- People learn best by doing, by putting into practice or using whatever they are studying.
- They learn best if learning experiences are real and meaningful.
- They learn best if they concentrate in depth on a few areas.
- They learn best if they have time for reflection and for the unconscious to work.
- They learn best through discovery, not being told what is right or wrong. Discovery excites and motivates the learner.
- They need a certain amount of independence to teach themselves and to realize when they need an expert (teacher) as a resource.
- They learn best when what is learned and the level of challenge are appropriate to their intellectual capacity and their background.
- They must perceive growth through successful experiences achieved in challenging situations.
- They learn best from a teacher when mutual respect exists.
- They learn best when they make connections among bits of knowledge and when they have fit new knowledge into their own systems of understanding and truth.
- They learn best if they see the value of what they are doing not only to their future but in the present.
- They learn best when they have some control over the pace of learning.

The results of Nick's exercise

List of assumptions about learning embedded in the school's approach to education:

- They will learn what adults have determined is important.
- They will learn what teachers teach, so the teacher must be the source of knowledge.
- They will learn if they are motivated, so a primary responsibility of the teacher is to motivate the students. In general, students learn if the teacher is responsible for their learning.
- It is important for students to learn the discoveries and ideas of others—how others see the world. Students will come to appreciate Great Books; they will appreciate standing on the shoulders of the giants of the past. What excites the teacher will excite the student.
- They learn best by reading, listening and memorizing.
- They learn best if knowledge is broken into compartments that have no apparent relationship to each other so that ideas can be studied in isolation.
- They learn best if they focus on one area for about fifty minutes and then move quickly to another area and repeat this process four or five times a day.
- They learn best if each teacher in five areas treats his area as the most important and demands a minimum of one hour of intense work between each class.
- They learn best when given large quantities of material to learn.
- They will learn better by reflex than by reflection, so answers to questions asked in class should be given quickly, and all tests should cover the largest amount of material in the least time.
- They learn best by being told what is right and wrong.
- They learn by being challenged, so they should learn complex and sophisticated ideas even before they are ready to understand them.
- They learn if they are told they will value the education in the future.
- They improve performance through addressing weaknesses, so teachers should emphasize errors.
- They learn best if they do not challenge teachers' knowledge and authority.