

## Brain Compatible Schools for a New Era

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I have said often that schools need to be compatible with how the brain functions. Obvious as that is, schools, by and large, have not appreciated what this means for practice. I have urged that brain compatible schools are:

- safe,
- hugely stimulating,
- provide for active learning, and
- give students immediate feedback on their progress.

Huge amounts of deep permanent learning occur when engaged in meaningful real-life experiences. Here is a list of specific activities that we think would create exciting schools. See how many of these your school has or could initiate.

- **Field trips** expose students to the world, its events and its operation. In effect, the world becomes an extension of the school whether studies of the adjacent neighborhood or extended trips across continents. The brain needs huge amounts of input to grow and properly handled field trips can furnish a part of that fresh input. Students at all ages should be leaving school on field trips at least monthly. The cost is fairly minimal such as increasing the amount for field trips per student from \$6 to \$60 per year, still but one percent of the budget.
- **Drama and theater** provide deeply engaging activities ranging from simple immediate role-playing to major productions. In the process, students test many skills and try out different identities. They can conduct research into historical or cultural settings. They learn to work toward a common goal and feedback is immediate. Every school should have a simple stage and theater equipment to encourage this exciting form of learning.
- **A television studio** engages students and provides extraordinary avenues for research. It allows many opportunities for expressing skills and knowledge. Simple studios cost little nowadays.
- **A publishing center** allows students to produce their own books, newsletters, literary magazines and yearbooks. The center would need equipment and supplies including the tools and devices that all of us use such as computers, cameras, scanners and software for word processing and graphics.
- **Shops and labs** allow for making things ranging from simple take apart areas and carpenter tools for young children to more sophisticated industrial arts areas for older students. These provide wonderful experiences in how the world works. Such areas have been out of favor in recent years, probably because educators did not understand their value in providing concrete learning experiences for students.
- **Cooking** and home arts are similar areas of great importance for life and have great appeal for students of all ages, thus providing a basic platform of critical learning

experiences highly related to real life. We cannot short-circuit basic learning experiences by substituting vicarious or intellectual pursuits.

- **A school garden, greenhouse or farm** link students with the basic processes of life and growing, processes that have become increasingly foreign in a seemingly non-agricultural society. We believe stripping students of these experiences may contribute to an unconscious feeling of unease based on a sense of helplessness if suddenly left to one's own resources in a world cataclysm.
- **Animals and pets** similarly do wonders for children and youth in understanding life and the importance of caring for others. It would be great if schools could be linked to farms, pet hospitals or veterinarians or if they had animal areas of their own, well beyond the usual fish aquarium.
- **A news center** would provide several daily newspapers, magazines and television news programs to expose students to events in their community and the world. Issues of interest would emerge for follow-up and further study by students wanting to get more information and understanding.
- **Exchanges** with families and schools across the city or the state or other countries provide enormously stimulating input to the brain. Such experiences can be arranged on a mutually beneficial basis for very little cost when parents take exchange students into their homes for a week or two. Think how host students would rise to the occasion of describing their school and community and caring for their guests.
- **Service** to the school and the community should be part of every student's experience. Every student should feel that his or her contribution to the operation of the school makes it a better place. School service can include such items as hosting visitors, working in the food service area, caring for the school's animals, growing flowers, or gathering data for evaluating the school program as well as the more usual help in the school office or library. Service in the community, arranged by staff employed for that purpose, has been shown to be one of the most compelling learning experiences in a student's life.
- **Advocates** provide every student an adviser who is crucial (particularly at the secondary level) to understanding and tailoring for the instructional, social and physical needs of students. Many schools recognize the importance of an advisory program, but few have structured the day to make it a substantive one or have given the staff training necessary for success.
- **Student personal work space** provides every student with his or her own workspace or "office" that makes school less like "school" and more like a place where one does important work with one's own place for the tools and activities of learning. There are imaginative ways to provide for this need.
- **Co-locating** schools with community agencies and social services are a cost effective and mutually beneficial way of providing for the many needs of students and families.

The list doesn't end here. We haven't touched on many of the arts, sciences and other areas but this is a beginning to stir thinking about different kinds of facilities and programming.

Given that a school with these features would provide an enormously exciting education for students, the question arises: how to do it? We suggest a first critical step is to recognize the power of learning by doing and learning in context. This suggests that we might replace part or most of the school day of traditional subjects with some of the above learning activities. The concern that students would not learn the basics in such a program can be alleviated by understanding the research that shows that deep permanent learning results from an experiential curriculum.

A more full-scale application of the ideas and many others that could have been listed would mean changing schools from a collection of classrooms to a series of learning centers, labs, workshops and connections to the world. The role of discussion, reflection and more conventional ways of teaching is not lost in such schools. It is, in fact, enhanced with vivid experiences.

Schools can move in this direction by offering choices to both staff and families so that differing philosophies of education are accommodated. The growth of alternative schools and schools within schools in recent years provides a useful avenue for avoiding conflicts over differences of views.

My hope for the schools of tomorrow is that they will be brain compatible in the fullest sense. That's a worthy goal for any school whether traditional or progressive.