

A Beginner's Mind

**PROCEEDINGS
21st National Conference
on the Beginning Design Student**

Stephen Temple, editor

**Conference held at the
College of Architecture
The University of Texas at San Antonio
24-26 February 2005**

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Situating Beginnings
Questioning Representation
Alternative Educations
Abstractions and Conceptions
Developing Beginnings
Pedagogical Constructions
Primary Contexts
Informing Beginnings
Educational Pedagogies
Analog / Digital Beginnings
Curriculum and Continuity
Interdisciplinary Curricula
Beginnings
Design / Build
Cultural Pluralities
Contentions
Revisions
Projections

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The Beginner's Mind: Incorporating Educational Psychology and Creativity into the Foundation Design Education

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"The student is not a vessel to be filled but a fire to be kindled."

-Mestrius Plutarch

" You cannot teach a man anything. You can only help him discover it in himself."

- Galileo

The act of creation is the crux of meaningful design.

"At critical points in history, those rare, dedicated few who discovered, remembered, or were taught the way to operate the channel to their deep unconscious (idea processor) seem to have been intuitively led to produce knowledge and change the existing domain." - Willis Harmon¹

Unless the beginning design student was fortunate to have a musical, drama or sports teacher in high school that was tuned to help the student create "flow" for optimum behavior, the student may have difficulty fully engaging the act of creation in beginning design. The aware teacher wants to develop the "Intreprenuer" within. An "Intreprenuer" is a person that is aware of his/her inner processes and is cognizant of his/her ability to achieve "flow", the "zone" or "white moment." Educational psychologists, psychologists and sports psychologists have been contributing to the development of Intreprenuers for several decades. All Olympic training centers spend 90% of the time developing the athlete's ability to get into the "zone." When an athlete or performer is in the "zone" or "flow" state, everything clicks. Their skills are matched with the challenge and they blend with the moment. Everything feels harmonious, holistic and effortless.

Over the years, I have adopted several methods to help the students discover the Intreprenuer within. Since tension inhibits creativity, I incorporated progressive relaxation exercises developed by Harvard Medical School in the 1920's for patients that need to reduce blood pressure and were allergic to medications. Every counseling center at every university utilizes these exercises. Students can more easily access "flow" in a relaxed state. With the lights off, students recline on the top of their desks and over a period of days go through six progressive relaxation exercises. Sports psychologists, drama teachers and musicians use centering exercises to focus the student's mind on specific activities before an event, I am using centering exercises to visualize designs in the five senses and have written centering exercises that also incorporate progressive relaxation exercises. These exercises also help students overcome design preconceptions and utilize aspects of environmental psychology. Baron and Taylor in their book, Scientific Creativity, state that it takes 3-5 years for a person to recover from their University experience before they create any new knowledge. I have a series of lectures and exercises on creativity that guide the students to discover how they personally get into "flow". There are many ways to achieve "flow" and each student must realize what is effective for him/her.

Music with words is to be avoided as words trigger images in the brain that can conflict with the creation of an original design. Some students must have total quiet to continue to maintain "flow". Different sensory stimulations effect students thus enhancing or diminishing "flow." The act of creation is a self-involvement and is usually not a public performance. Aloneness is usually required for the student not trained in the art of "flow" which is why many

students are more creatively fluid working nights when they have more opportunity for uninterrupted “flow.” Students who started the beginning design class often had difficulty generating ideas since most had no background in getting into their idea processor through “flow.” About midway through the class, students began to recognize what triggers their individual “flow” and by the end of the semester, the biggest problem they have is choosing which one of the many ideas they have generated. This inner skill is carried into all their classes, not just design classes. Relaxation and “flow” help maintain optimum behavior even in rote memory classes and their grades in all their classes improve. Students in my beginning design class have received the majority of the scholarships and archived projects in their sophomore, junior and senior year. By discovering the path to their personal “flow”, they have gained confidence in their own ability to create.

In concert with the design classes and to open up the process of creativity to the rest of the campus, I created a lecture/design class on creativity and future studies that encourages students to be constantly creative in their daily life. The course established an environment for students in any major around the campus to create knowledge. Instead of reproducing knowledge, students are stimulated to produce soft innovations, hybrids and inventions. Students are challenged to constantly think of innovations that could improve existing products, services or processes. Students are made aware of accelerating change and the necessity to be creative in this century. The class is open to all majors within the university resulting in a rich mix of ideas.

Each student has to sign a nondisclosure statement to get into the class. The nondisclosure statement protects any idea presented in class for a year. There are individual and group projects that require the students to produce knowledge. Groups of six were selected by mixing majors and gender, Mid-terms and finals are mission impossible take home problem solving essays where they must document their thinking processes and use multiple creative problem solving techniques covered in class. Automatic “A’s” were given to individuals or groups that sold their innovations, hybrids or inventions to an established company. Licensing and Patent experts were brought into class and students had to check their inventions against the US Patent Office computers.

In addition, each week students wrote down as many ideas that might be developed with new technology in the future in the form of an “Ignorance Journal”. Groups could share their ideas to create current projects. Centering and progressive relaxation exercises were utilized as well to help students discover what encourages their own personal “flow”. The act of creation occurs in a “flow” state. The students are given examples and instruction throughout the semester to be mentally prepared to recognize the state of mind for their own act of creation, During the class, student groups debate questions like- What could be invented today that will put you out of business tomorrow? Will their domains even exist 10, 20 or 30 years. Hence two thirds of the jobs that will be available in 2020 have not been invented yet. It will be knowledge creators that invent the companies and services of the future.

The class has 165 students representing every College on campus and enrollment fills in the first 9 hours of a three-week registration period with a majority of honors students. It is the first class to fill on campus. The College of Business and the College of Engineering have asked for slots for all their honors freshmen for next semester. The Honors College is considering requiring the course as part of their core curriculum,

Creativity happens in the same part of the brain in every individual. It doesn’t matter if the person is an artist or a scientist. The self-discoveries students make in this class helps them in all their courses and in their confidence to be a creative individual. The cross pollination of ideas from every major gives students an insight on how others think and the benefit of morphing between majors to create new and novel ideas.

After every lecture, groups debate possible future alternatives utilizing knowledge from their disciplines. Any pop quizzes are creative problem solving challenges. Students can debate with

me on alternative answers in the open class. Students have to present their soft innovations, hybrids and inventions in class and the class votes on which projects have commercial possibilities. One of the real thrills of teaching this course is when students who felt that they were not creative, suddenly discover that they are an idea factory.

Notes:

1. Harman, Willis, PhD, Higher Creativity, Liberating the Unconscious for Breakthrough Insights (New York: Jeremy P. Tarcher, Inc., 1984, Page 174.)

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