Dear Dr. Thornburg and Dr. von Oech,

It has been my pleasure to read your articles and book as a requirement for this course. As you know by now, we have been instructed to send to you our response to the question "How would you structure a school that does different things instead of doing things differently?" Humbly, I submit my answer to this question to you both.

Whackback-Attack!

by

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prepared for: Bruce McVicker, Larry Hannah, Ted Perry

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Whackback! #1:

Sound the gong. California public schools are in despair. Class size, undermaintained classrooms, lag in technology, outdated teaching models, misalignment with the "real world", financial limitations and threatened existence by the presence of on-line education are a few of the major bazookas aimed at the foundation of California education as we know it today.

Whackback! #1.5:

Strike up the band! California public schools offer the finest education possible and have always done so. The school system is one well refined, well maintained elaborate machine that works. Students that truly desire an education can get an excellent one. They learn in an environment that allows them to establish meaningful relationships with their peers, participate in the emergence of technology in their schools and public libraries, experience a blend of the instructivist and constructivist teaching methodologies, make "real world" connections with the information presented to them, appreciate the on-going modernization of their schools, and enhance their learning with on-line course offerings.

Whackback! #2:

Hi. I teach math at a lovely high school in Carmichael, CA. But, when I focus sharply on what I think is lacking at my school, I find plenty to worry myself about. I'll start with my concerns about class size. In the past 8 years, my assigned classes have never numbered less than 28, are often at 36 and seem to average about 34 pupils per section. I would have fewer papers to correct, discipline problems to solve and phone calls to parents to make if this burden were significantly lighter. I could move the wobbly desks out and new computers in. My students would have less trouble with their peers (such as distraction from the lesson, "freeloading" or physically threatening behavior), benefit from more one-on-one instruction and see more immediate feedback on their progress. We would all benefit from a less stressful environment with more elbow room which would translate into more peaceful interactions with the world around us.

Whackback! #2.5:

Hi. I teach math at a lovely high school in Carmichael, CA. When I use a wide angle lens to view the school, I see 2000 students milling about, smiling, joking and forging those high school relationships that etch themselves into their personal history books. The creative teachers provide them with "know your neighbor" activities to make them comfortable in the classroom. With 35 classmates typically available, students can frequently find like-minded fellow students with whom they can collaborate on projects or activities or exchange peer tutoring.

Having read Roger Von Oech's book Whack on the Side of the Head, I've not been able to turn off a creativity faucet that is spewing ideas into my summer "think" session about the coming school year. To increase my students' comfort level, I am planning to have a "joke or humor story" per day. Students will be assigned at least one day per quarter to prepare a joke or humor story with which to begin the class period.

Having read David Thornberg's article "Campfires in Cyberspace", I' will divide class time into campfire, watering hole and cave sessions, not necessarily in that order. During campfire time, students will listen to one speaker illustrating a topic. At the watering hole, students will share their knowledge with each other in collaborative groups. In their caves, students will quietly work on their assignments or reinforce their understanding of current topics.

Whackback! #3:

Students at my school sit in classrooms with scarred and wobbly desks, chalkboards dotted with blemishes, ancient overhead projectors that overheat and underproject, apple IIe computers, narrow passageways to their seats, poor heating or air conditioning, no telephones, leaky roofs, dirty floors, and more.

Successful businesses maintain pristine environments in order to assure their continued success. Furnishings, display centers, and electronic equipment are frequently updated and always in good working order. Their structural sites are well maintained by an adequate cleaning and Montanans service. Imagine walking into a law firm to find water dripping from the ceiling, limited telephones, apple IIe computers, dirty floors and a copy machine's insides scattered across the floor! You would likely take your business elsewhere! David Thornberg suggests that our students will do just that if we don't focus allotted education money into major improvements in our schools' electronic equipment. We need to target a goal in which every classroom will be equipped with "a large projection screen on which photographic quality color images could be projected from television or computer-based information sources including animation, films, hand-written notes or student multi-media work." The money required to achieve this goal would equal approximately 2% of our current educational budget. "Yet the price of not transforming our classrooms is too high to pay." (Excerpts from Thornberg's article "Scissors, Stone and Paper".)

Florida's comprehensive, on-line, high school option illustrates just how available the choice to "go elsewhere" is to students and parents that are fed up with sticks in our educational mud.

Whackback! #3.5:

Students at my school are enjoying a brand new library with new carpeting, furniture, 36 Macintosh G3 computers networked and excellent lighting, heating and air-conditioning. The theater is equally new and equipped with modern electronics and the rest of the school is currently undergoing renovations that will result in proper wiring for outlets and telephones to ready each classroom to receive at least one Macintosh G3 computer connected to an internet server. Updated technology is flowing into the school like a flash flood.

Yet, even before the serendipity, the lack of modernization

actually increased my creativity level and bonded my students, colleagues and myself together rather like "soldiers in the trenches." When my floor was dirty, I or my students grabbed the broom and swept it. When the sun's heat made my room unbearable, I brought in a fan and sprayed my students with water from a squirt bottle. When my overhead projector blew it's little fuse, by asking the right individual, I found a donation of a used, but much newer projector than mine. There is no end to the stories I've heard of teachers receiving donations or finding very inexpensive sources for slightly outdated computer hardware or software, but newer than that which was currently being used.

If I walked into a law firm that claimed it was "open during remodel", I'd have a more understanding view of their current environment. If the staff seemed knowledgeable, friendly and able to meet my needs, I would likely "excuse their dirt". In the same page of thought, as a parent selecting a school for my 9 year old son, I would react to a "needs improvement" environment in the same way. Realistically, choosing an alternative to public education would include child care costs and the worry of whether the quality of his instruction would equal or surpass that which he would have received.

Whackback #4:

Technology has just attained "warp speed". Entire contents of libraries can be transmitted in 1 second. We have emerged into the Communication Age. The tools of the Information Age have been enhanced to allow the user to shop, research, learn and communicate on-line at a relatively low cost to the family budget.

When infused into the classroom, the students can research their projects and present their findings in a multi-media format. They can exchange ideas electronically with students at their school, other schools, even other countries! But most importantly, they would be able to become technologically fluent in preparation for the business world that will soon embrace them. Without this fluency and the associated skills of "communication, collaboration and creative problem-solving" (David Thornberg's "2020 Visions for the Future of Education"), these young people will descend to the increasing lower paying jobs while the technologically savvy individuals will be eagerly welcomed by higher paying employers needing to fill jobs that have yet to be created!

Do we want to bear the shame of knowingly failing to prepare our students for a future of desirable choices? We'd best focus our

tax dollars on internet access for every student and technology training for their teachers.

Whackback! #4.5:

A few years ago, I thought my sons were much too addicted to the television. Like a burglar, I gathered up the "boob tubes" and placed them in dark storage. After the initial shock wore down, my sons began to communicate more freely a wider variety of topics. We played board games, kept the house tidier and enjoyed more frequent excursions. The "blackout" lasted only one month and the addiction seeded itself again when the electronic devices were returned. But the change in my perspective became permanent. I understand the potential hostage-taking nature of electronic transmission. Many young people fall victim to the cyberspace trance. They, too willingly, give up fresh air, reading a magazine or playing with the dog for the confines of about 20 cubic feet of space directly in front of a computer monitor displaying a web site for "Beavis and Butthead".

In the classroom, potential problems resulting from technology-based learning would include access to unfiltered web sites, pornographic e-mail and lower test scores on state standards.

In addition, the question exists, "Are lower paying jobs a bad thing?" Frenzied adults are often trying to merge over from the fast lane so that they can smell the flowers and notice when their children learn a new skill like reciting the multiples of 12. Perhaps picking apples is a healthier lifestyle for some than booting Apples.

Whackback #5:

The instructionist model of teaching has past its prime. For individuals preparing themselves for fields requiring a large bank of knowledge, it was very effective. Very knowledgeable lawyers, doctors, researchers, mathematicians have been very successful in their fields and were educated by lecture, assigned reading and procedural laboratory exercises. However, today's consumers want experts that can communicate effectively in common terms, actively listen and creatively accommodate their needs. They are more comforted by a doctor that smiles warmly, accesses their record on a computer screen and explains compassionately what medical technology is currently available to help them to better health.

The constructivist model of teaching is better suited for preparing students for the skills being called for in today's workplace. Under this model, schools would provide students with meaningful experiences from which they would be able to draw their knowledge and ideas. Students will need to be able to gather information, think and develop skills integrally in their future jobs. Under the instructivist model, students would learn these skills separately. John Dewey claims the acquisition of knowledge without thought can be "mind crushing" and skills without knowledge can result in routine habits controlled by the authority of others

California's Educational Standards currently reflect the need for meaningful classroom experiences. The most recent TIMSS (Third International Mathematics and Science Study) report illustrates that US students, academically, are lagging far behind students from 40 other countries. Too many U. S. schools have focused too long on quantity rather than quality of instruction. Perhaps we have been "crushing minds" and programming students to work habitually under the control of others. Again, are we willing to bear the shame of knowingly failing to prepare our students to compete in our global society?

Whackback #5.5:

Does anyone ever question parents on which teaching strategy they used to teach their children to talk? Much of what's learned was successfully done so through imitation. Students will learn regardless of the chosen teaching model. Humans, by nature, are inquisitive and eager to acquire knowledge. Every teacher knows that learning styles differ from student to student and no particular teaching method will work equally effectively for all students. The astute teacher has learned to strike a balance between the instructivist and constructivist models. Some students excel when given a traditional math book with many practice problems while others learn best in a collaborative group setting discovering formulas while solving a contextually rich problem. Also, teachers with many years of experience, sometimes lock into the teaching style with which they are at their best. If a teacher does an excellent job of teaching via the instructivist model, is it worth the trade-off to weaken his or her teaching by forcing change in his or her methodology?

Superintendent, Delaine Easton, favored the new California Educational Standards proposing more meaningful learning experiences, but warned that basic skills should not be left

unaddressed by classroom teachers. And, perhaps, the TIMSS report reflects not that U. S. teachers are not properly preparing our students, but that other countries weed out less academically inclined students at an earlier age and teach higher concepts to students that have abundant support at home. Statistics must be analyzed carefully before we replace the working part of our current teaching models with one they may or may not work on a broad scale.

Whackback #6:

That settles it then. Advancement in technology is sweeping us all onto the information super highway. In order to prevent pile-ups on this freeway, California schools need to plan to update their school systems post haste. School districts need to equip their classrooms with appropriate technological vehicles and train their teachers to drive the new constructivist model of teaching skills that align with the needs of the emerging work force. As the implementation takes place, info highway patrols should monitor the flow and identify hazards as they appear. And the department of technological vehicles should evaluate the performance records of this new group of drivers to ensure their safety while journeying toward their destinations.

Whackback #6.5:

Explorer, artist, judge and warrior. Roger von Oech defines these four roles as essential to the successful, creative thinker. Exploration of the tools of technology and methods of technology-based instruction is an excellent reaction to the workplace's call for change. The artist within should play with ideas of how these new toys might be of use in today's curriculum. When sufficient exploration and recreational thinking has taken place, the judge needs to call the court to order to harshly sort the impractical and dangerous from the reasonable and beneficial. When the verdict is in, the warrior may then take aim at the foundation of education as we know it today.

Lastly, have they considered a bicycle lane for the users that need to take their time?