

## 2005 Distinguished Teacher of the Year

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Thank you, Dr. Pritchett. Thank you, President Brogan, Provost, Vice Presidents and Deans, administrators, staff, faculty, students, visitors and friends. Thank you all for coming today.

It is a great honor for me to be here today as the Distinguished Teacher of the Year.

In the next 10 minutes or so, I would like to share with you some thoughts about teaching, creative and innovative thinking.

First, a story: Many years ago, Fred Smith, a business major student at Yale University suggested a business idea:

#### OVERNIGHT MAIL DELIVERY

He turned it in to his professor, who wrote, "Nice, but not feasible." The professor gave him a "C".

As we all know, this student, Fred Smith, became the founder of Federal Express

Clearly, these are the kind of students we want to have. More importantly, they are the kind of students we need to encourage.

Generally speaking, we participate in an education system that usually does NOT encourage creativity and innovation. This is not because we meant it to be this way, but because we let other priorities in education take precedence -- priorities such as memorizing old facts and equations and succeeding in exams. I agree that these have importance in their own right, but, above all, the most valuable tools we as professors can offer our students are not the facts or methods of our respective disciplines, but rather the MINDSET and WAY OF THINKING that they will need to lead in their field. We must prepare our students to face real and unexpected problems, and to solve them inventively.

This was best put by Mark Twain, who once said: "I have never let my schooling interfere with my education."

As teachers, the task before us is to create an environment where creative and innovative thinking is the norm – an environment that challenges the students beyond the textbook and trains them to be future innovators and intellectual leaders.

So where do we start?

Specifically, there are three issues in the classroom:

First , teachers do not allow students’ imagination to run wild; students become rule followers;

Second, students are losing interpersonal skills, and

Third, students do not think as much as they should.

Let me share with you what I think needs to be done.

We need to learn to change our and our students’ point of view.

I pose the following question to my students: Can an object be seen as a square, triangle and circle at the same time? The answer, of course, is yes. This object can be seen as a square, triangle and circle at the same time: *(For illustration, please see the accompanying PowerPoint).*



This is a different, yet correct, solution!

Unfortunately, most books have only one correct answer for each question. At the same time, problems in life have more than one solution.

We must teach to think differently, the so-called “out-of-the-box” as opposed to “Do not break the crayon.”

This is the first puzzle that I give to each of my students in the class. *(For illustration, please see the accompanying PowerPoint).*



The task is to separate the cup from the rope...of course, without untying or using scissors. They try this way, that way, and sometimes get stuck. Finally they make it.

The point is that if you try to solve a problem and get “stuck” one way, don’t dig in the same direction. If you cannot get the rope around the stick, try around the cup.

We need to have common sense.

A while ago, I received a fax that said: to..., from..., date..., number of pages..., etc. Everything looked ok except, at the bottom of the fax it said:...

“If you have not received this fax, please call us.” ... Lots of common sense...

We need to restore intuition

Here is an example:

Not too long ago I bought a salmon at Costco. The lady at the counter told me that the total was \$965. “

“\$965 for this salmon? I asked”

“Yes, \$965”, she replied.

It took five minutes and a “salmon expert” from Costco to get the “correct” price: 9 dollars and 65 cents.

Probably the most important item on my list: Imagination.

Ask your students: What can they do with a coat hanger? You won’t believe how many answers you’ll get from one class in less than five minutes – more than a 100 different ideas from a relatively small class. Let their imaginations run wild!

Einstein said: Imagination is more important than knowledge.

Teaching RISK TAKING is crucial for creativity, innovation and entrepreneurship

Erica Jong said, If you do not risk anything, you risk even more.

Are we ready to take a risk right now? YES ? NO? I can’t hear you. OK:

Would you dare to show the picture on your driving license to the person who sits next to you? If so, go ahead and do it! AHA! It’s amazing how ashamed we are of these pictures...

## We need to improve teaming and communication

If you think for a second about your education, most of the work that you have done was individual. ONLY here and there you were asked to do something as part of a team. This must be changed!

The truth is that people are only as useful as their communication skills.

Look at different departments in businesses, say engineering and marketing: They barely talk to each other ... almost like speaking different languages.

We must teach to appreciate diversity in thinking and otherwise.

Yes, we DO think differently! We must learn to take advantage of it for the greater good.

A little story: Mike Levine, an inventor who is currently working with FAU, is a classic example of a person who thinks differently and does not fit the education system. He has what people may call A.D.D., but still, this guy is the inventor of VCR programming, TIVO, and the digital thermostat. By the way, he is also a national bridge champion.

We need independent thinkers with a great sense of humor.

Steven Wright once said, "When everything is coming your way, you're in the wrong lane."

My mechanic once told me, "I couldn't repair your brakes, so I made your horn louder."

In fact, top high-tech companies do not care much about what you know, but rather how you approach a problem you have never seen before. For example at Microsoft interviews are conducted using brain teasers more than actual programming tests.

Here is a brain teaser for you:

How many places are there on the Earth where one could walk one mile south, then one mile east, then one mile north and end up in the same spot? Hint: There are several different solutions...

Finally, based on my observations, I do believe that we can have Florida Atlantic University become a leading university in teaching creativity, inventiveness and innovation.

Thank you!