

**Chapter 2 A Place on the Farm for Computers**

Limiting Factors

Green Thumb

Specialized and Productive

**Chapter 3 The Time Advantage**

The Tireless Machine

The Flexible Machine

**Chapter 4 Farm Computer Future**

Monitoring Farm and Ranch Chores

Computer Designed Agricultural Machinery

**SECTION B Microcomputing Components**

**Chapter 5 Introduction to the Microcomputer System**

Understanding Input, Processing, and Output

Input, Processing and Output Devices

**Chapter 6 Hardware and Software**

Hardware and Software

Keyboard

**Chapter 7 Microcomputer Systems Operation**

Central Processing Unit - RAM and ROM

Input-Output Devices

Cathode Ray Tube (CRT) Output

Printer Output

Disk Output and Input

Cassette Recorder

**SECTION C Selecting a Microcomputer**

**Chapter 8 Making Dollars and Sense**

Micro Considerations

Make Software Choices First

A Beginner's System

A Standard Farm or Ranch Microcomputer System

An Expensive and Powerful System

**Chapter 9 Hardware and Software Options**

Hardware Options

Software Options

**Chapter 10 A Farm and Ranch Sample Program**

Depreciation Program

Program Explanation

**SECTION D Basic Microcomputing for Agriculture**

**Chapter II A Four Step Approach to BASIC Literacy**

A Word About Basic

Ideas for Using Section D

**Chapter 12 Where to Start**

**Chapter 13 Write a Program**

**Chapter 14 SAVE and LOAD**

**Chapter 15 Using GOTO**

**Chapter 16 Try an IF . . . THEN Statement**

**Chapter 17 GOSUB/RETURN**

**Chapter 18 LET, LET, LET It be Clear and Clean**

**Chapter 19 DEBUGGING - Examples of Errors**

**Chapter 20 FOR . . . NEXT**

**Chapter 21 DATA/READ**

**Chapter 22 RESTORE**

**Chapter 23 DIM is a DIMension**

**Chapter 24 TAB more than one Calorie**

**Chapter 25 ON GOTO . . . ON GOSUB**

**Chapter 26 SPREAD SHEET OPERATIONS**

---

# The Catalyst To Improve The Learning Climate

## Sam Brownback

Agriculture has fallen on tough times. We all know that. Farm prices are down, farm foreclosures are up, costs continue up, concentration in agriculture continues, and those people that you are putting out are facing a greater challenge than ever before in an industry that is depressed yet essential. It is essential for the industry that you encourage and motivate students. The times are tough and challenging for agriculture. It's a challenging time for you in this business of education. Your task is to motivate and challenge your students who are the future of agriculture. There's a cardinal rule of motivation, and that simply is that if you are not motivated yourself, you can't motivate anybody else. You must be motivated to motivate.

Motivate your students in several ways. One way you need to motivate your students is for them to set directions. Students are at a real crossroad and need assistance in setting goals. You can help them to decide the direction that will be best for them. I am eternally grateful to one of your colleagues that did that for me several years ago. I was sitting in an Ag. Orientation class. Dave Mugler was up in front of the class, and Dave said to the class, "I am going to ask you to write



---

Sam D. Brownback, KSU alumnus and attorney, became the guest speaker at the final session of the 29th Annual NACTA Conference at Kansas State University, June 15, 1983.

down what you want to achieve in your 4 years at KSU." I thought to myself at that time that this was a dumb thing to do, that setting goals is something you ask somebody in high school to do. However I sat there and thought about it, and I wrote on my piece of paper that I wanted to be student body president at Kansas State University. In 1978 when I was elected student body president I was able to thank Dave Mugler for giving me that dream, for giving me that direction. You can do the same thing for your students. Challenge them to set directions and establish goals.

This is an ancillary point, but isn't it great that we live in a country where we can set our own goals and directions. Allow me to digress and tell you what I mean. A few years ago I traveled to the Soviet Union to tour collective farms and to meet with agricultural officials. The purpose of our visit was to see how they conduct their agriculture and agricultural training. We visited a vocational technical school not dissimilar from many of our vocational technical schools in Kansas. I had the opportunity to talk a little bit with one of the students. I remember specifically visiting with one student about 16 or 17 years of age. He was in the tractor mechanics course. I asked him through the interpreter what his goal was in life, what he wanted to do. In responding to me, he said, "Well, I don't really have a goal. I've been told by the government that I'm going to be a tractor driver, and I guess that's what I will do." There a young man can't even have a goal. Can't even have a dream of his own.

What a marvelous opportunity we have in this country to set our own goals and dreams. What an opportune challenge you have to encourage those college student you have to set goals. You can't make their dreams, but you can give them one. Some of you have before; and I encourage you to continue to do that, to give dreams.

I had a college instructor that encouraged me to set goals in athletics. So I did. I went out for the K-state tug-of-war team and I made it. My position was third jerk from the end.

For a while my goal was to be a farm broadcaster. I did that for a while, but then I realized that wasn't going to be for me. This revelation struck me when I came out of the studio booth one day from giving the farm markets. I exited the booth and there were the other people I worked with laughing their heads off. I asked them what was so funny. They said, "Why don't you go back into the booth and see what you just read off over the air concerning the farm markets." So I went back in and looked and looked at my script. In summarizing the cattle market I had stated, "Cows are steady, bulls are active and calves are dropping." I went on to law school after that.

Setting goals, helping people to set goals. I challenge you to help your students set directions and goals.

You can help your students in another way. By helping them do what I call positioning. Allow me to define positioning. Positioning is best defined by this Abraham Lincoln quote: "I shall prepare myself and some day my chance will come." That is positioning. Preparing so that when your challenge comes you are ready to accept it. That is positioning. You can help your students to position themselves for their challenges. I know, because some of your cohorts have done it for me. They helped me to position myself to be able to accept the challenges that came to me.

Allow me to illustrate my point. Let's imagine that in front of you right now, we have a 50-pound block of iron. I can make a number of things with that block of iron. I can make horseshoes from it; and if I do, those horseshoes are going to be worth about \$25. Or, I can make sewing needles from that block of iron; and if I do, those sewing needles are going to be worth \$2500.00. Or, I can make balance springs from that block of iron, and if I do, those balance springs are going to be worth \$250,000.00

Horseshoes, sewing needles, or balance springs - what is it going to be. My analogy is this. We are all given a certain quantity of resources in this body of ours, this physical body and this mind. How are we going to develop those resources? Are we going to make horseshoes or balance springs out of that body of resources we have. Are we going to develop ourselves fully or partially? This is positioning. To develop our skills to such a point and in such a way to be able to achieve those things that we want to do.

I hope you encourage your students to position themselves. You do this by teaching. By teaching animal science, genetics, any number of courses. Training the mind in such a way that it is able to handle the challenges it faces, and agriculture has many challenges.

You can help position your students by teaching the lessons of life that you have learned. Pass on the lessons of life that you have learned. I remember going in to visit with one of my professors who had just been through a very trying time dealing with campus politics. As you all know, campus politics can be some of the most grueling and toughest fighting of any arena of politics. My professor had just been through a particularly tough time in campus politics. He looked at me and commented, "Don't lose your integrity." I dealt with what he had been through. His integrity had been challenged and it withstood the onslaught. His comment has stuck with me to this day.

Positioning - helping students to develop themselves in such a way as to be able to achieve their goals.

The biggest thing that you can give to a student is something to believe in. Now this may seem out of your field of responsibility, but it is something many of your students desperately need. Many students have trouble finding something to really believe in -- a reason to

work and achieve -- an answer to the age old question of why dream, why position yourself to meet your challenges -- simply why.

The lack of something to believe in is the reason some young people have become involved in the "Punk Rock" culture. Punk Rockers see a society and culture that we have developed that could literally blow itself up with nuclear weapons. Furthermore, Punk Rockers view their parents as people who have too much in their lives and are going to die at an early age of a heart attack. Punk Rockers don't see anything in their parents' values and culture worth believing in.

Some people also suggest that the reason for the number of "religious" cults on the college campuses today is that young people are searching for something to believe in and the cults want to catch them in their quandry. The cults can catch people who are at a crossroad. People looking and searching for a direction, for something to believe in. The cults suggest that they can give you the answers to the hole that is in your life, can give you something to believe in.

Students have a real problem in finding something to really believe in. You can help your students with that. You can give the student something to believe in. Such as compassion for their fellow man, service to mankind, and a belief in God. You are in a prime position to pass to your students something to believe in.

I would like to share with you a poem that I found very enlightening regarding the need for something to believe in and of a challenge in trying times. The poem is untitled and the author is unknown except that he was a soldier in the Civil War on the Confederate side. It was toward the end of the war; the South was losing. This is what he wrote:

I asked God for strength that I might achieve;  
I was made weak, that I might learn humbly to obey.  
I asked God for help, that I might do greater things;  
I was given infirmity that I might do better things.  
I asked for riches, that I might be happy,  
I was given poverty, that I might be wise.  
I asked for power, that I might have the praise of men,  
I was made weak, that I might feel the need for God.  
I asked for all things, that I might enjoy life,  
I was given life, that I might enjoy all things.  
I got nothing that I ask for, but almost  
everything I hoped for.  
Almost despite myself, my unspoken prayers  
were answered.  
I am amongst all men . . . most richly blessed.

Imagine that, a person in his position, saying "most richly blessed." He saw the challenge around him, he saw the answer within -- something to believe in. It is as simple as that.

The challenges we face are not as big as the Confederate soldier's. They are none the less challenges and things that we have to answer.

How can you challenge and motivate your students? Two ways. One is to be different. Dare to be different. We all remember the unique and the inventive. Think of the professors that you had. The ones that you remember were unique and inventive. I challenge you to be a "Columbus," not of discovery, but of teaching. Teaching in new and different ways always with an eye toward effectiveness.

The second way to challenge and motivate your students is to personalize your teaching. Think of those professors that influenced you the most, that challenged and motivated you. They were the ones that you knew personally. They were the professors that you really knew. You could go up to them after class and visit with them, and they talked with you. Those were the ones that challenged and motivated you. They are the ones that challenged me and helped me the most. You can do that.

I asked my wife the other night, as I was preparing this presentation, what professor she remembered as helping her the most through college. It was a sad answer that she gave. She could not remember any professor that had really helped her. But she could remember several high school instructors that had helped her a great deal in developing and setting goals. One who was a coach that she spent a lot of time with, another was the journalism instructor in a class of 30. She went to a university that is not affiliated with your group. She never had that personal relationship with an instructor that really allowed her to grow personally under his tutelage. This is truly unfortunate, because I can remember a number of professors who helped me personally, that have sat and visited with me, giving me direction, helping me position myself, that gave me something to believe in. I ask you to do this for your students.



NACTA AWARDS BANQUET