

LEARNING FOR LIFE

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Introduction

I am honored and humbled by Ed Osborne's invitation to present the distinguished lecture this year. Ira A. Dickerson (1984) revealed that 53 "mystery" speakers had preceded him in 1983 beginning with H. E. Bradford in 1930. If Dickerson's and my calculations are correct, this is the 75th distinguished lecture presented. As I reviewed past lectures, it became apparent that the speakers addressed problems, concerns, changes, and trends facing the profession. The speakers seized the opportunity as forums to profess, reflect and challenge the profession on topics vital to the discipline. My intent will be to follow their lead and hopefully stimulate the profession as a whole and each of you as individuals to address a growing challenge that is at the heart of agricultural education, a profession that is built on the teaching and learning processes.

The title of my presentation is "Learning for Life." My objectives are to discuss and reflect on critical dimensions of lifelong learning, tie lifelong learning to the way instructors teach and students learn, and identify strategies for addressing challenges related to lifelong learning.

There are several forces at work that make lifelong learning a necessity more now and in the future than in the past. Knowledge continues to expand and grow at a record pace. Employment with a single employer throughout one's lifetime is highly unlikely. Not only will people change jobs and employers, but they will be required to change professions. Future workers need to have the ability and skills to adapt to changes that they will experience throughout their careers. Change is occurring at a more rapid pace and these changes require higher level skills than in the past. The growth of distance education offerings is further evidence of an increasing need and desire

for continuing education. The estimated total enrollments in for-credit courses has doubled from 1994-95 to 1997-98 (754,000 to 1,344,000), and doubled again by 2000-01 (2,876,000) (Kiernan, 2003). I am sure the numbers have more than doubled since 2001. Members of the Leadership Group on 21st Century Skills (1999) stated, "If we want all adults ... to have the opportunity to reach their full potential as workers, parents, and citizens, then we must work together to create a culture of lifelong learning for all Americans."

As you may know, during the past six years I have directed distance education for the College of Agriculture at Iowa State University, and I have had an opportunity to help instructors from many departments incorporate technology in their teaching. This experience in working with delivering distance offerings, both as an instructor and assisting others, helped trigger my thought process regarding learning and caused me to think back to my training in agricultural education.

As we have moved from synchronous to asynchronous delivery of course offerings, we have increased place-bound students' access to educational offerings but have also placed more responsibility on students for their learning. Many of us are delighted with the learning that is taking place, but also surprised. We, as teachers, like to think that we need to watch over students for them to learn. After the first web course that I taught, my ego was deflated when students indicated on the course evaluation form that they were "satisfied" with the role of the instructor in the class. I wanted them to say, "I was lost without you being present while I was learning."

What I realized was that in many respects we have moved from student-directed to teacher-directed instruction. Ball and Knobloch (2003) concluded that the problem-solving approach was the most

widely advocated teaching method in agricultural education; however, they referenced Osborne and Hamzah's findings that teachers employ this method minimally in their programs.

I discovered that only about 10 percent of the articles published in the Journal of Agricultural Education over the past five years (Volume 40 through 45) have "learning" in their titles. There is no doubt that other articles relate to learning but perhaps the small number of articles with learning in their titles reflects our interest and research on learning. It is critical that we steady the ship to provide leadership in the teaching and learning processes, including looking specifically at lifelong learning.

Lifelong Learners

During the past year, I began a challenge of determining what it takes to become a lifelong learner and how the College of Agriculture at ISU can encourage and contribute to developing lifelong learners. This assignment related directly to the college's latest strategic plan and to my work as director of distance education in the college.

As part of this assignment, I worked with others in planning and conducting a Summit on Lifelong Learning, sponsored by the College of Agriculture at Iowa State University in cooperation with Pioneer Hi-Bred International, Inc. The Summit was held on May 17, 2004 at Pioneer's Carver Educational Center with 70 participants representing Iowa State University, agribusinesses, associations, commodity groups, corporate trainers, and educational leaders. A pre-conference survey was administered with 85 percent of the attendees completing the on-line survey. Participants were asked open-ended questions and were asked to complete the Self-Directed Learning Readiness Scale

instrument (Guglielmino & Associates, 2004) to get them thinking about readiness to learn. Results of the survey, in addition to my study and thoughts, form the basis for this presentation on lifelong learning.

As I journeyed through the literature, one of the first things that I discovered was that lifelong learning is not just adult learning or continuing education although that is the context in which it is most often associated. Lifelong learning includes what an individual learns throughout a lifetime beginning with birth, including formal education provided through courses and degree programs offered on-campus or at a distance.

Dr. Kenneth Moore, professor in Agronomy at Iowa State University, Dr. Robert Beck, technical training manager at Pioneer Hi-Bred International, Inc. and former professor at Purdue, and I created a model for lifelong learning (Figure 1). The model includes three dimensions that influence lifelong learning. Those dimensions are: a **mindset** or attitude that individuals are willing to learn, an **environment** that cultivates and encourages learning, and **skills** that enable individuals to be self-directed learners. Each dimension is influenced by both the learner and the provider. I will attempt to provide insight into these dimensions from both the perspective of learners and providers or instructors.

Mindset

For people to learn, they must want to learn. Teachers try to stimulate students to learn by using tried and true principles of creating interest and motivation. But why do some people want to learn and others seem reluctant? The answer is more complex than simply motivation; it involves the overall student's attitude and belief toward learning - a mindset toward learning.

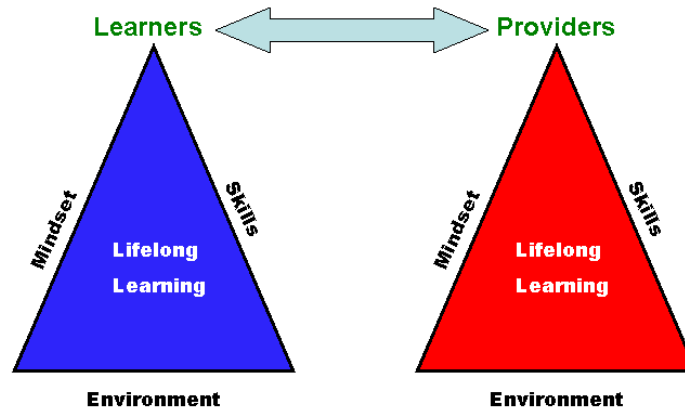


Figure 1. Model of Lifelong Learning.

Abraham Lincoln had very little formal schooling and was mostly self-educated yet he was able to read, learn, and lead our country through a difficult period. Under President Lincoln's leadership, legislation for establishing land-grant colleges was enacted, as was other significant legislation that has had lasting impacts on education in this country. He didn't have access to the Internet but I would imagine that obtaining a book in Lincoln's day was significant and valued. Lifelong learners are self-directed learners as Lincoln was, yet too often students do not assume responsibility for learning because they do not want to or the instructor does not provide them the opportunity.

I contend that a college education has shifted from being an opportunity to an expectation for students. I began my college experience about 100 years after Lincoln signed the Morrill Act, and I had a sense of anticipation, fear, doubt, and desire about college. My parents emphasized the importance of college throughout my childhood and I remember dad saying that a college education is an opportunity to learn to use your head instead of your back. College was an opportunity for me.

Currently, students are expected to go to college as students in my time were expected to finish high school. I believe that the way a college education is viewed has

impacted the attitude towards learning that many students bring to college. Instructors frequently describe students as passive learners who are simply completing 'hurdles' necessary for graduation. A common complaint is that students focus on the end rather than the process of becoming, and that they are not fully engaged in their education. Education is viewed by students and perhaps too many instructors as destinations rather than as just connections along the lifelong journey of being an informed and educated person.

Another significant change affecting mindset toward learning has been the technology explosion. Students and instructors have more resources at their fingertips now than the best libraries of the past. My 3-year old granddaughter let me "play" with her game board that talks, asks questions and provides feedback while "teaching" concepts related to colors and shapes. Again, I have heard from faculty that students expect learning to be fun and the bar has been raised for what it takes for educators to make it fun. I don't have anything against having fun but can or should we compete with Disney and Nintendo in making education fun? The point is that students learn something everyday, and they also take and complete college courses. Certainly, technologies have had more positive than negative

benefits to learning but my question is whether technology is also contributing to students' mindset regarding learning. What does it take for educators to fulfill the expectations of today's students?

Assuming you agree that there have been changes that have impacted students' attitudes toward learning, let's shift the focus to the instructors. Why are you a faculty member? What attracted you to the university setting? In 2001-02 academic year, 88.5 percent of the faculty in public universities identified "intellectual challenge" as the highest rated item in making their decision to pursue an academic career (The Chronicle of Higher Education Almanac, 2003). I contend that university people select their professions partially because they are lifelong learners, and that they have the opportunity to continue learning as a part of fulfilling their responsibilities. If this assumption is correct, why are so many faculty teaching students in ways different than the processes they value as lifelong learners themselves?

Instructors are using more technology in their teaching. Technology makes providing information to students easier for the instructor and in many ways to students. Instructors can provide more stuff on their web sites than they would ever be able to cover in the time allotted for a face-to-face class. Even in face-to-face classes, instructors can cover so much more with a good set of PowerPoint visuals than if they had to use the chalkboard or whiteboard. Granted that many instructors are providing students copies of these visuals so they can focus on understanding the concepts rather than on getting the points down in their notes; yet, are these practices contributing to passive learning?

Mocker and Spear (1982) developed a descriptive model of lifelong learning based on who makes the decisions regarding identification of the learning goals and means of learning. A graphical representation of their model is presented in Figure 2. The characteristics as defined by Mocker and Spear for formal learning, such

as a classroom, are directly opposite to characteristics of self-directed learning. Distance education, particularly asynchronous delivery, has helped us realize the need for developing self-directed learners. Therefore, the challenge is to get students involved in determining goals and means for learning in all education settings. I believe strongly in the proposition that the learner determines what he/she will learn, not the instructor. The instructor can help focus the learning but ultimately students determine what they learn. Students need to have ownership in their learning. Educators need to engage the students by actively involving them in setting learning goals and means for learning.

The first question posed to participants in the Lifelong Learning Summit was, "From your experience and judgment, what are three attitudes or beliefs most likely to motivate an individual to be a lifelong learner?" Responses were grouped into the following categories of attitudes or beliefs:

- desire to grow, learn, and improve;
- career advancement, promotion, and employability;
- love of knowledge and information;
- openness to change;
- curiosity;
- will to succeed;
- goal-oriented; and
- financial gain (Carter, 2004).

In addition, Summit participants shared that in the hiring process they want to select lifelong learners who recognize and understand that their success relates directly to continued growth, development, and learning. In other words, they want to hire people who are willing to learn.

How do we help students develop these attitudes or beliefs so that they will have a mindset for learning now and for life? Students need to view learning as a lifelong journey. I will review some strategies later but certainly we need to model practices that encourages active, self-directed learning.

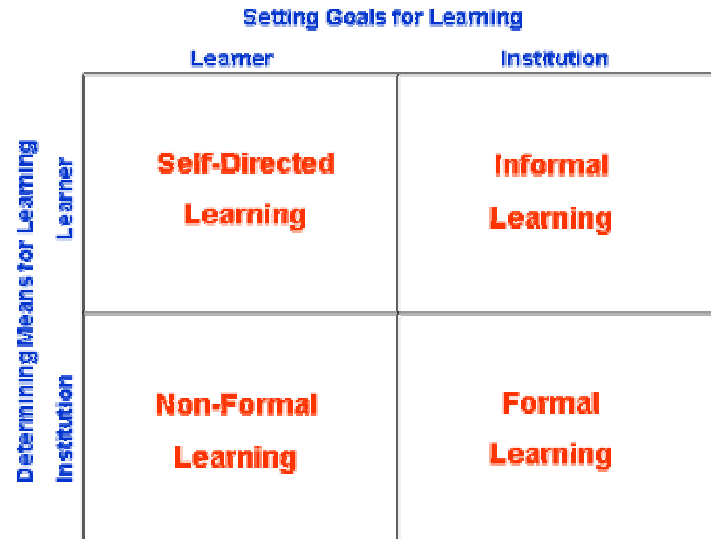


Figure 2. Visual Representation of Lifelong Learning Based on Mocker and Spear's Model

Environment

A second dimension of the lifelong learning model addresses providing environments in which people can succeed, whether in the workplace or classroom. What kind of environment do you prefer for working and/or to learning? People are one of the most costly and important resources in any organization. At universities, usually 80 to 90 percent or more of the budget is tied up in people. It makes economic sense to hire good people and keep them. Likewise, attracting and retaining quality students are important to the success of academic programs. To adequately take care of this critical resource, there needs to be a conducive and supportive environment for students and workers to grow and develop to their potential. Everyone is different but there are things related to the environment that would either encourage or inhibit learning.

In the workplace, emphasis needs to be placed on lifelong learning and growth. You can tell if an organization is committed to continuous learning by its actions and the actions of its people. Let me further explain characteristics of organizations that are committed to continued growth and development, which also have implications for teaching.

First, continuous learning is a part of the organization's culture. Leaders, supervisors, and employees model the importance of learning by personally taking part in continuing education. Expectations for continuous education are part of job descriptions, performance evaluations, and requirements for advancement or promotion.

Second, organizations and professionals help identify educational needs of their members or employees. They benchmark the best of similar organizations to identify training needs and develop a plan of action for helping members secure that training. I have worked with Pioneer Hi-Bred International, Inc. and it is clear that as an organization, they are committed to developing people and helping them close the gap between learning and performance.

Third, organizations provide members opportunities for learning. These opportunities can be provided internally and externally through workshops, seminars, team activities, etc. and be conducted by people within the organization or resource people contracted by the organization. I would hope that your institution views attending NAERC and AAE meetings as part of your professional development and adding to your professional growth.

Last, organizations provide intrinsic and extrinsic incentives to encourage

participation in continued education. Many companies pay tuition or other costs to encourage employees to take advantage of opportunities. They reward and recognize achievement and completion of educational endeavors. Incentives and rewards provide direct evidence that continual education is valued within the organization.

Let me get a little closer to home and discuss the environment for learning in academic settings. In the Kellogg Commission's Sixth Report (2000), the writers explain their recommendation to change from the term "teaching" to "learning" in describing the tripartite mission of State and Land-Grant Universities. They state:

By learning, we mean replacing passive modes of instruction that rely on students' acceptance of materials from teachers with a more active process in which students and faculty take responsibility for their own intellectual growth, drawing from the richness and diversity available on any major university campus. And by 'students', we mean learners throughout their lifetimes. Faculty in this conception, change from being the source of all knowledge, 'the sage on the stage', to mentors helping lead students towards new understanding, 'the guide on the side'. (Kellogg Commission on the Future of State and Land-Grant Universities, p.7)

Lifelong learners are actively involved in the learning process yet as I pointed out earlier in describing formal learning, instructors plan the goals and the means for learning. How do students learn how to set learning goals and select means for learning? Instructors determine if students have learned and too often, the focus is on understanding the content. These practices have contributed to developing passive

learners as described in the Kellogg Commission's report.

In some ways we have regressed in promoting active learning by the techniques we are using in delivering instruction. Ball and Knobloch (2003) reported that one-third of the teacher educators required teaching methods texts that were dated more than 10 years. Are the techniques that we are using current with the needs of 21st Century learners? Are we modeling techniques that are not only "good practice" but help students develop skills needed to enable them to become lifelong learners? Are we helping students understand and develop learning strategies that will serve them beyond formal education? Are we using techniques that require students to reflect, interact, and work independently and interdependently? Are we helping students access, evaluate, and use information, whether in print or electronic form? Are we helping students learn how to learn by providing feedback and reinforcement? If not, we are not creating a climate for developing lifelong learners.

An additional key point in the statement by the Kellogg Commission relates to the roles of students and instructors. Who is responsible for the learning? In formal educational settings instructors seem to take on that role. If students don't learn, it is the instructor's fault. We need to shift the responsibility of learning to students, and instructors need to focus on creating an environment that will encourage learning. I know the argument that students don't understand what they need to learn in a specific content area so how can they assume that responsibility. As instructors we can define the parameters for courses using desired outcomes and objectives and actively involve students in goal setting and determining the means for learning. We can involve them in evaluation and have them think and reflect on what it is they have studied.

Participants involved in the Lifelong Learning Summit were asked the following question related to environment: "From your experience and judgment, what are three important characteristics of an environment that encourages and enhances lifelong learning?" Based on the results, the following characteristics were identified by respondents:

- support-moral, financial, mentoring
- expectation to learn as part of group's culture
- access to learning opportunities
- flexibility-learning, job, time
- rewards and incentives
- dynamic, changing
- learner-centered
- open communication
- non-threatening (Carter, 2004).

These characteristics need to be addressed in planning and delivering educational offerings.

Skills

The third dimension of lifelong learning relates to skills. It is important to identify and understand the skills needed by lifelong learners, and skills needed to help develop lifelong learners, whether in the workplace or an educational setting.

Participants in the Lifelong Learning Summit were asked: "From your experience and judgment, what are the three most important skills necessary for lifelong learning?" Respondents indicated that the most important skills were:

- communication
- time management, prioritizing
- critical thinking, problem-solving, questioning
- goal setting
- self-discipline, independent learning
- basic skills, computer
- analytical, sensing, perceiving
- networking and interpersonal (Carter, 2004).

Another skill that emerged from the dialogue of Summit participants was the importance of learning within teams.

What are we doing to help students build this skill set? Are these skills explicitly designed into courses and program outcomes? Certainly there are many opportunities in formal settings, such as the classroom, that can help students develop skills needed for learning for life.

Another key skill that is important and has implications for agricultural education is the ability for students to learn how one learns. Lifelong learners need to understand the learning process and develop their individual strategies or 'best practices' in learning. I have incorporated an activity in my classes that requires students to analyze their learning as a process. Not what they are learning but how they are learning. Through this assignment, students begin to identify and develop those things that work best for them. Most of these students are graduate students yet they indicate that it is the first time that any teacher has asked them to think about how they are learning.

Instructors need to require students to reflect on the learning process. When I started using journaling years ago, I knew little about how to make effective use of journals as a teaching and evaluation tool. I learned by experimentation and am convinced that journaling can be a rich measure of the learning that is taking place. Journaling requires students to place concepts and principles in a context to demonstrate their understanding. With proper feedback and reinforcement, students can demonstrate their growth in understanding the principles and in the process. Some institutions are using portfolios for classes and programs to help students understand their growth and development and portfolios could help students reflect on their growth in acquiring and developing lifelong skills.

Impediments

The fourth question asked of Lifelong Learning Summit participants was: "From your experience and judgment, what are the major impediments to successful lifelong learning?" The responses were summarized into the following themes:

- Time: constraints, management, balancing roles
- Complacency, lack motivation, underachievement
- Money
- Educational opportunities and/or knowledge of them
- Organization's culture
- Life interruptions
- Access to technology
- Bad learning experiences (Carter, 2004)

Many of the impediments relate to one or more of the three dimensions included in the model for lifelong learning and provide additional insight and challenges to educators planning and delivering continuing education.

Strategies

Ok, what can we do to develop lifelong learners? The Centre for Teaching and Learning at University College in Dublin lists five teaching approaches most likely to encourage lifelong learning skills. Strategies listed included:

- Activity-based, self-directed and peer assisted learning
- Experiential and real-world learning
- Resource-based and problem-based learning (PBL)
- Reflective practice and critical self-awareness
- Open learning and alternative modes of delivery (Centre for Teaching and Learning, 2004)

Sound familiar? These teaching approaches are not new and they relate directly to the practices taught in agricultural education departments in preparation of teachers of agricultural education for many years. My concerns are: first, whether we are adapting these strategies to the technology tools and the demographic and societal changes occurring in the 21st Century; and second, whether we are modeling the approaches in our teaching so that we are fully engaging students in the educational programs.

Let me summarize by identifying challenges and strategies for addressing some of the points I have attempted to make in this presentation regarding three dimensions of lifelong learning: mindset, environment, and skills.

1. Students need to develop a mindset for learning now and throughout their lives, and agricultural educators can lead the way to define and adapt pedagogies to serve that purpose. We need to help students understand that a college degree or completion of a course is simply a "connection" on their educational journal to becoming a productive and educated member of society. And that education is a lifelong process. Students need to have a desire to learn and researchers in agricultural education can lead the way in helping determine what it takes to develop that mindset for learning.
2. Instructors' approaches to teaching are different than the approaches they use in learning themselves. The Academy is comprised of lifelong learners yet they contribute to passive learning by using teacher-centered techniques. We need to change the environment or academic culture in our departments, colleges and universities regarding learning. Agricultural education can provide leadership in incorporating elements of self-directed learning into formal educational settings. We need to model techniques that place the responsibility of learning directly on students.
3. Students need to understand how they learn and develop strategies for learning in the classroom and as employees. This requires students to reflect on their learning while guided by instructors who provide feedback, encouragement, and understanding of the processes. Course and program portfolios can be effective tools for helping students better understand themselves and how they learn.

4. Skills that enable individuals to become lifelong learners need to be integrated into courses and programs whether teaching synchronously or asynchronously. We need to focus on those skills, develop outcomes associated with the skills, and assure that graduates attained those skills while completing their programs.

In summary, the Kellogg Commission spent a great deal of time, effort, and resources in reinventing the land-grant mission. Universities, such as Iowa State, have adopted new terminology to reflect and describe the tripartite mission. Lifelong learning begins from birth and educators need to focus on how we can help students grow and develop as learners. We need to start by changing the culture of universities and place emphasis on learning by changing the way we teach and the way students learn. This change is a necessity in the 21st Century. We must aggressively provide leadership into determining how we can more effectively influence student's willingness to learn. We need to develop environments in our classes that contribute to developing self-directed learners. And we need to emphasize skills associated with lifelong learning into our courses and programs. Agricultural educators have so much to offer in researching, modeling, and leading our institutions toward creating a lifelong learning culture that is needed by those who we serve. I feel confident that agricultural educators will be on the forefront in this endeavor. Thank you.

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