

Using Stories and Imagery to Impact Learning in a College of Agriculture

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Introduction

The integration of storytelling and imagery can create a fun and positive learning experience. To be effective, instructors should implement and design classroom activities that utilize active learning strategies to improve student cognition and maximize student engagement (Conner, Rubenstein, DiBenedetto, Stripling, Roberts & Stedman, 2014). Miller, McNear and Metz (2013), suggest that to increase long term retention of subject matter in students, active and engaged pedagogies should be used (Baker & Robinson, 2013). Even when content is heavy with concepts and principles, teaching with a story can show a student the world through another's eyes. Staying engaged can be improved by implementing storytelling to add depth and understanding (Lann, Carter, Stedman, Lamn, 2014). Learning throughout the ages has relied heavily on storytelling to convey ideas, philosophy and cultural understanding (Abrahamson, 2011). This form of narrative communication has helped shape minds, build knowledge and extend deeper conceptual epistemology. Great teachers from Homer and Plato, through Jesus and Gandhi have used stories, myths, parables and personal history to guide student instruction and development (Zabel, 1991). Learning from stories can enable students to attach emotional meaning to contextual concepts and facilitate transfer of knowledge into long-term memory.

Although not new to instructional design, teaching with a story, frequently is not used in subjects with heavy empirical information and traditional descriptive content. Typically, transfer of knowledge in college undergraduate courses is accomplished through memorization, however, there is evidence to show that storytelling fits a High Impact Learning environment (HIL). Defined as learning activities that purposefully and systematically encourage students to create new knowledge, engage in critical thinking, explore new ideas and make connection with comprehensive curriculum, HIL can incorporate storytelling into positive student learning outcomes (Murphrey, Odom & Sledd, 2016). Research suggests that internal cognition increases when utilizing the story approach to remember concepts, facts and information (Yussen, Huang, Mathews, & Evans, 1988). Using narrative explanation and storylines has been described as a primary and irreducible form of human comprehension (Mink, 1978).

Adding an additional dimension of comprehension and emotion to the story is imagery. By using pictures or imagery in a lesson plan, a teacher can emphasize the intrinsic value and emotional connection to the material. More (1987), argues that the use of metaphors, images and symbols have always existed as a primary learning tool because humans "code with imagery" to remember and understand words and concepts. Therefore, the use of stories and pictures together provide mental recall and understanding of concepts and principles crucial to the content covered in a lesson. This curriculum attempts to add both story and imagery through videos in four teaching modules.

Some courses remain difficult to build student enthusiasm and interest, particularly when the content is traditionally heavy with definitions, principles and concepts. For example, *Introduction to Agricultural Cooperatives*, taught as an elective in an agriculture economics department, is a subject about which most college students have little to no understanding. Engaging them and creating an interactive environment is challenging, yet important to ensure students gain the maximum learning experience. To that end, a pilot curriculum was developed and employed to improve the level of student interest, interaction and content understanding.

How It Works

Four teaching modules were developed to teach agricultural cooperation principles and concepts. The curriculum covers the basics of agricultural cooperative history, purpose, structure, operation and economic impact. Using videos to tell the story about Charlie, a young cotton farmer, each subject section chronologically follows her journey and decision process to join a cooperative, benefit from her ownership and ultimately witnesses her success.

This innovative approach to teaching, begins with methodology for motivating student learning through storytelling and imagery. Storytelling is an important technique in the process of learning and understanding (Langer, 2016). Students gain a better understanding by connecting real characters in real world situations rather than using examples of abstractions and generalizations. Using Charlie's story to facilitate this technique enables students to gain greater perspective and knowledge of why cooperatives are important to the agriculture industry. Being mindful of powerful storytelling, this teaching approach and curriculum instills a breadth of colorful context and comprehensive understanding. Ultimately, the goal is to use the storytelling method to achieve student learning outcomes in each teaching module:

1. Why cooperatives are important in helping reduce costs and increase revenue to owner-members.
2. Introduce cooperative structure and operations.
3. Explain how cooperatives are managed and represent member interests through governing board.
4. Show how cooperative ownership helps producers invest in the food and fiber value chain and contributes to building local economies.

Results to Date

Currently, implemented as a pilot curriculum with 40 students, the story using video, handouts and activities is being introduced in an agriculture economic department at a [State] university. Each lesson plan includes, a video, introductory discussion, pre and post video reflective questions and an interactive activity. According to the instructor, the preliminary student feedback has been very positive and successful in helping increase interest and understanding of content.

Future Plan

Data will be collected to ascertain student satisfaction, engagement level and course understanding. From these results, the curriculum may be edited, changed or kept the same for future distribution and delivery to other classrooms. Additionally, plans involve the integration of the four modules into a community college economics' course. The curriculum will be delivered consecutively to two sections of four classes of undergraduate students. At delivery completion, a questionnaire will be administered to capture student satisfaction, engagement level, and knowledge attainment. This curriculum has broad audience appeal and can be utilized in 4-H or FFA programs to help educate younger students about agricultural cooperation.

Costs & Resources Needed

This curriculum will be made available for any instructor on a website link through [State] Extension Service. Resources will involve access to a computer and Internet.

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