

Inviting Students to the Active Learning Process

By Doug Kueker

In his book, *The Courage to Teach*, Parker Palmer asserts that good teachers share one trait, "they are truly present in the classroom, deeply engaged with their students and their subject" (Palmer, 1998). The same could be said for active learning in the classroom. Active learning occurs when students are truly present in the classroom and deeply engaged with the subject matter. However, as practitioners we know that all students may not do this without support. So then, what strategies can we as teachers employ to create an environment that invites this level of student presence and deep involvement? Inviting students to be present as active learners requires more than using a variety of "active learning strategies". The art of active learning requires a holistic approach - a strategy where teachers balance engagement with a meaningful classroom dialogue and adequate teacher support in encouraging the transfer of responsibility for learning.

We are blessed, in agricultural education, to teach in a context rich subject area where applications to the real world are plentiful and hands-on, engaging classroom activities abound. However, we cannot rest assured that active learning occurs simply by merit of engaging students in activity and telling them about all of the applications. Active learning, even in the agricultural education classroom, requires adoption of an *approach*. As you read this article consider your approach to inviting students as participants in the active learning process.

To identify an approach one must begin with reviewing the learning pro-

cess. Learning is not a simple process of adding knowledge into the student's brain; instead it is an active process where the learner is taking information from the environment and constructing personal interpretation and meaning (Good & Brophy, 1994; Phillips, 1995). Students create links between prior knowledge and new concepts and make conceptual knowledge meaningful by using it to explain or explore new situations (Roth, 1990). Learning then is understood to be an individualized process where students must integrate new information while restructuring prior knowledge on their own (Case, 1993). This kind of learning is complex and requires a great deal of cognitive work by the learner (Roth, 1990). An artful active learning approach will engage students and then support their cognitive involvement in this learning process.

It is important, at this juncture, to distinguish between engagement and cognitive involvement. Involvement differs from engagement in its focus. During involvement focus is not on actively "doing" instead on the quality of the cognitive experience during learning (Reed and Schallert, 1997). Many common active learning strategies focus on getting student engaged; however neglect getting students cognitively involved in the experience. Take for instance; questioning techniques where a teacher initiates with a question, students respond, and then teachers evaluate the response as correct or incorrect. While engaging in nature, this type of questioning does not support students' involvement in learning. Other common strategies follow suit when they are used in a way that the teacher assumes a preeminent role in the learning process. Engaging strategies like, checking for under-

standing, pre-developed mnemonics and models, hands-on activities and lab demonstrations can be a vehicle for beginning the active learning process. However they are insufficient to support cognitive involvement required to integrate new information with prior knowledge (Brown, Collins & Duguid, 1989).

Follow-up and support from the teacher after engaging students become the balancing components for encouraging the active learning process. Two themes from scaffolded instruction literature provide the rest of the approach needed to encourage students' cognitive involvement: negotiating a meaningful whole-classroom dialogue and providing for transfer of responsibility through appropriate and meaningful teacher support during learning (Meyer, 1993).

Negotiating a Meaningful Whole-Class Dialogue.

Whole-classroom dialogue following the use of an engaging strategy provides a forum where students actively begin to make the content meaningful. Palmer (1998) speaks of the need for students to engage in an authentic dialogue with one another in order to learn; "Learning does not happen when students are unable to express ideas, notions, confusions, ignorance and even prejudices" (p.75). According to literature on scaffolded instruction fostering a meaningful dialogue serves two purposes: 1) negotiating deeper understanding of concepts and 2) transferring responsibility for the learning to students (Meyer, 1993). Characteristics of dialogue from scaffolded instruction literature such as; classroom talk where the teacher doesn't respond every other turn; stu-

dent initiated discussion and evaluation of responses; integrating student comments and contributions into the ongoing dialogue all provide a model that breaks away from the traditional classroom discussion (Meyer, 1993).

There are several strategies for fostering this critical follow-up piece in the active learning process. The following section captures each strategy followed by examples of language that would reflect its implementation.

Shift from telling answers to asking students the right questions to help them evaluate

■ “How do you know this model is true?”

■ “What personal examples have you encountered to support the your position?”

■ “Why is this important to us now? In the future?”

■ “How did you arrive at your conclusion?”

Become a mediator encouraging student-to-student questioning, summarizing, application, evaluation, and analyzing

■ “Thanks for identifying those characteristics on egg quality. Who has questions for Sara to help us clarify any of those characteristics?”

■ “Who can rephrase what Steven just shared and repeat it back to him? Did they capture everything you had in there Steve?”

■ “Sam where would Kim’s strategy be useful?”

■ “Let’s bring this all together, who can summarize for the group the

strategies we have discussed to solve this problem? Thanks for volunteering Sara, who can write these strategies on the transparency while Sara summarizes? Thanks Janelle!”

■ “Mark, that’s a great point to add clarity to Stacy’s strategy? Who can tell Mark why this is a great point?”

■ “Excellent questions Travis. Let’s discuss the answers; restate your first question - only this time let’s let Mark respond first since it was related to his strategy.”

Integrate student contributions into future classroom dialogue

■ “A few weeks ago, Sara summarized three strategies for us to use when evaluating the suitability of a land plot for crop production. Who can remember Sara’s strategies? *Listen and list them as students recall.* After you’ve had a few weeks to practice using them, let’s evaluate those strategies. What were the pros and cons of this first strategy?”

■ “Steve how did you arrive at your calculation of the logs we can get

from the tree in this problem? *Steve shares.* Did anyone else use Steve’s strategy? Who came up with a different strategy?”

Providing Support in Transferring Responsibility

The strategies we use to support students as they begin to make content meaningful must create an environment that encourages and supports transfer of responsibility. Transferring responsibility refers to the transition from student learning as, “other-regulated to being self-regulated” (Meyer, 1993). Donaldson (1978) describes an optimal level of student responsibility as learners; “we desire students to be competent, independent, to understand our world and act with skill” (p. 113). Everything we do as educators within the classroom speaks to our students about the beliefs we have about them and our expectations we have for them in terms of responsibility as a learner - what are you saying? If educators do all of the work for the students (i.e. telling them the answer), or we create a culture where the teacher is preeminent in leading learning (i.e. turn taking during discussion) we are sending signals that the teacher is responsible for learning versus students being responsible for learning. Characteristics such as: providing intrinsic motivators for learning and holding students accountable for accuracy in a non-evaluative and collaborative way are just two forms teacher support in transferring responsibility for learning to students. (Meyer, 1993).

There are several strategies for supporting the transfer of responsibility for learning to students. It is important to note that behaviors a teacher models consistently will determine classroom norms. It is not realistic to assume that incorporating these strategies will alter student orientation to-

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ward their responsibility in the active learning process over the course of one or two class periods. It will require time and may require teachers to hold an open and honest conversation with students about the intent behind this new style. The following section captures several strategies followed by examples of language that would reflect implementation.

Mediate frustration with new concepts by sharing long-term benefits or evoking curiosity

■ “I know this can be difficult to understand; if you stick with it you’ll be getting more than just a grade for this class. This is a skill you’ll actually use for the rest of your life.”

■ “Providing rich and meaningful examples applying the information to student-centered, real-world events. Speak to things like their hobbies, Supervised Agricultural Experience Programs, Career Development Events, or interests in the FFA organization.”

■ “Praise students for progress in learning not the getting the “right” answer.”

■ “That’s the way we’ve got to begin thinking through situations like this one.”

■ “Steve, share with us how it feels now that you’ve got the process down?”

■ “That’s great, did you see what Clay just did as he talked us through those characteristics - he took it to the next level and provided examples from his own experiences.”

Respond positively to mistakes or errors made during learning and collaborate to redirect

■ “Let’s see if your solution to the practice problem is accurate. When it doesn’t work...Okay, where did the method used to calculate the time value of money go the wrong way? Let’s look at it together. *When it does work.* What do we need to remember from that for the next time we encounter one of these problems?”

■ “How can we use the rules you just summarized to find a workable, accurate solution to the problem?”

The active learning process requires a high degree of cognitive involvement as students actively construct meaning and create links with their current understanding. Active learning is far too complex to be reduced to a set of engaging strategies or techniques; facilitation of the active learning process requires an artful and comprehensive approach. As practitioners we must balance our arsenal of engaging strategies with a meaningful classroom dialogue and teacher support in transferring responsibility for learning to students. Parker Palmer, is accurate in his assertion; “good teachers are truly present in the classroom and deeply engaged with their students and the subject.” Add to that, great teachers adopt an approach to active learning in the classroom that invites students to be co-participants in the process - truly present and deeply engaged with the subject.

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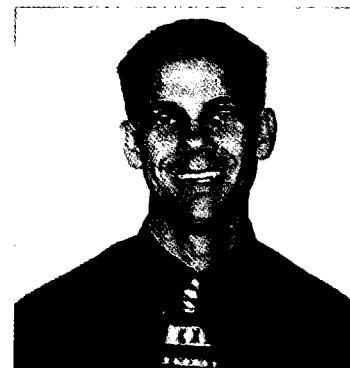
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