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How to Engage a Group of Diverse Adult Learners in a Way That Also Raises Rigor and Increases Learning

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Abstract

Typically, we teach the way we were taught unless we can learn new approaches to pedagogy. The literature on adult learning can guide meaningful, practical pedagogy that catalyzes the process of constructing meaning and the improvement of student learning. Moreover, when the quality of learning opportunities improves, underrepresented populations are more likely to benefit. Transformative change (Mezirow, 2000) in individual learning requires new approaches in thinking in how one can engender growth and learning with adults. This suggests that adults desire active versus passive learning that is also practical. Learners construct new knowledge that builds upon their prior understanding and experiences. Learning can be enhanced by what is termed “sociocentric,” rather

than egocentric thinking, when learners share ideas, inquire, and solve problems together and address the constant human need for dialogue (Brookfield, 2003; Garmston, 1997). By implementing simple strategies that create conditions and opportunities for adults to construct meaning, it is quite possible for cognition and understanding to improve significantly.

Introduction

Colleges and universities in the United States enjoy a reputation throughout the world of offering high-quality education. Indeed, it is a healthy industry by many measures: 70 percent of the world's Nobel prize-winners work in U.S. universities, twenty of the top rated twenty-six universities in the world are in the United States according to the Times Higher Education World University Rankings, and more than 764,400 foreign students attended U.S. universities during the 2011/2012 school year, a record number and nearly 6 percent higher than the previous year (Doughty, 2013). Clearly, it has the reputation of high quality and rigor.

It is not a stretch to claim that the present higher education system succeeds in some measures. Yet, while our country espouses democracy and cultural pluralism, college admission, retention, and graduation rates for historically marginalized students indicate predictably fewer opportunities for success. The graduation rates for African American and Latino students are significantly lower than their white and Asian counterparts (Carey, 2004). As the need for a postsecondary education becomes greater than ever before, the economic disparities resulting from the variance in educational attainment are a matter of equity and pragmatism for our society.

Academic Traditions

University faculty members were very likely successful students in an educational system that valued the dominant Western cultural norms such as competition and independence while devaluing other culture's norms such as cooperation and interdependence. Since we typically teach the way we were taught, it is not unreasonable to assume that the default teaching style found in most university classrooms

favors members of the dominant culture over other groups (Ginsberg & Wlodkowski, 2009). Moreover, considering the recent advancements in learning theory, one can argue that some time-honored academic traditions may not result in the highest quality of learning, regardless of one's cultural experiences. Yet, traditions of questionable value continue, even within an industry that proudly promotes new ideas and academic freedom.

Dating back over eight hundred years, academia draws upon the rituals of medieval times and religion. At the heart of most university classrooms is the lectern, so steeped in tradition and formality and not unlike the church pulpit from where the Bible was placed. In the middle ages the word "lecture" literally meant reading aloud from an authoritative text. People believed that knowledge and truth came from above. Books were scarce and many people were illiterate. At the universities, teachers dictated the texts to students. Although the advent of the printing press brought significant changes to the world, the university tradition of dictation and note taking persisted for many years following, as if nothing had happened (McLuhan, 1962). Another vestige of the Middle Ages is the flowing robes and chevrons worn by faculty and graduates, indistinguishable from the attire of many clergy.

Learner-Centered Education

In the Information Age, accelerated by technological advances, students not only have unprecedented access to information but also may participate in the co-construction of websites. Today's students, more often than not, possess their own mobile devices capable of retrieving recorded lectures to be played back at an increased speed for efficiency and convenience. Furthermore, a new research-based paradigm shift in higher education calls for a learner-centered rather than a content-centered approach. The end goal of a course is no longer simply to increase a student's amount of knowledge, but also to change the student's way of thinking and conceptualizing within the real world context. In other words, faculty members are now considering how to facilitate the process of learning. Moving from the "sage on the stage" to the "guide on the side" role confronts traditional faculty identities and roles. For some, this new paradigm challenges the control and power of being the sole content

expert. This shift also requires a new set of skills to accompany the change in philosophy (Saulnier, 2009).

The literature on adult learning suggests the need for making meaning and constructing understanding as a critical learning component. For many learners, this requires active versus passive learning. Students need to discuss what they are learning, relate it to their prior knowledge and experiences, wrestle with discrepancies, and determine how it applies to their lives. Learning as a spectator sport that entails memorization and recall is much less rigorous and often irrelevant. Although lectures should not be necessarily rendered obsolete, their effectiveness alone, or in large doses for enhancing learning is questionable. For instance, some research suggests that a lecture typically results in a 5 percent retention rate over twenty-four hours (Sousa, 2001).

Recently some attention has been given to university instructors who have “flipped” their class by sending the lecture and/or readings prior to the class session so that the class can be used for students to question and interact with the instructor regarding the material. Though this strategy has potential for increasing student engagement and understanding, there are also downsides to the model. An instructor without strategies to engage more than one student at a time may miss the opportunities for all learners to participate. Discussions dominated by a few students and the instructor would only reinforce the competitive and individualistic model for learning. Others students might ascribe to the traditional construct that the lecture is the center of higher learning and the additional class time is remedial. By not seeing the additional time in class as productive or necessary, they might simply skip the sessions.

Adult Learning

For many, learning is most effective when students work together. The “sociocentric” approach, in contrast to an egocentric approach, invites rich thinking and new understanding through sharing ideas, inquiry, and solving problems together. Public discussion and thinking out loud increase an individual learner’s capacity and adds to the collective knowledge of the group (Garmston, 1997). Even at the graduate level, students explaining the concepts to each other, using their own understandings, language, and assumptions are often more effective than the instructor who has a

different level of experiences, understanding, assumptions, and orientation. Probably the best analogy would be to recall the frustration of not comprehending the explanation from a “computer nerd,” a “math whiz,” or a car mechanic who explains a concept or procedure either too quickly or who uses unfamiliar terms and unfamiliar concepts. Yet, when a peer who has successfully captured the essence of a concept explains, it can be better understood.

Adult learners are diverse in their learning styles. That alone could discourage any instructor’s desire to change to reach all their students. Yet, similar to Supreme Court Justice Potter Stewart who proclaimed, “I know it when I see it,” in reference to pornography, adults recognize effective instruction and facilitation that result in substantive, relevant learning experiences. Yet, unlike the Supreme Court that struggled with defining pornography, there is a body of research that does identify the components. Although there may not be a definitive list of adult learning principles, there is plenty of agreement and overlap between lists. The following is a partial list compiled from articles, research reports, dissertations, and textbooks on adult learning (Brookfield, 2003; James, 1983; Merriam, Caffarella, & Baumgartner, 2007; Mezirow, 2000; Garmston, 1997):

1. Adults are motivated to learn by a variety of factors.
2. Active learner participation in the process contributes to learning.
3. Content should be presented in a variety of mediums and formats.
4. Content interspersed with opportunities for processing creates personal relevance, facilitates construction of meaning, and increases retention.
5. Experience of the learner is a major resource in learning situations.
6. Collaborative opportunities for processing and problem solving through interaction and learning from peers increase engagement and conceptualization.
7. A comfortable supportive environment is a key to successful learning.

Changing practice and implementing adult learning principles into university classrooms promise deeper levels of understanding, increased amount of retention, with greater numbers of students. Students who will benefit the most from a learner-focused and

sociocentric approach are the historically underserved populations. For instance, several independent studies of college students have concluded that Native American and Latino students prefer sociocentric learning conditions with opportunities for “active and concrete learning experiences” (Sanchez, 2000). Though we know that a certain arousal and activity is necessary to stimulate cognition, we also know from research and experience that stress acts as a major block to learning. A comfortable supportive learning environment is also particularly important to underserved populations who have legitimate reasons to believe that the environment is not conducive for all learners. Although offering culturally responsive learning environments is complex and multifaceted, shifting to a sociocentric, learner-centered approach will address many of the challenges.

Repertoire of Effective Strategies

Building a repertoire of effective strategies to increase student engagement and learning, for which there are many, is a reasonable starting point. The following strategies are but a handful of examples of how instructors can begin to shift the focus and outcomes of their classes:

Establish Norms and Use a Parking Lot. In order for students to feel safe and take risks, it is recommended that norms be established at the outset of the course. The norms address expectations, how the class will fully participate in discussions, address criticism, and complaints. The parking lot is to be used to put aside complicated or peripheral issues that require longer reflection or attention outside of class.

Instructor Role:

1. Offers ideas for course standards and invites student input.
2. Facilitates discussion, relegating less relevant or more complicated topics to the “parking lot” for reflection and later discussion.

Student Role:

1. Join in establishment of basic norms.
2. Feel free to invoke the norms throughout the course

Assessment:

1. Do students respect each other’s time and feelings?
2. Can the instructor accept questions/challenges without derailing the curriculum by using the parking lot?
3. Is there an environment of psychological safety with room for diverse opinions?

Take Attendance by Giving a Survey. The purpose of giving a survey is to inform or influence discussion or lecture. The survey can appear online before the class, be given out at the beginning of class, or be in PowerPoint.

Instructor Role:

1. Prepares questions that cover opinions formed from a common reading or other information sources.
2. Directs one or more students to compile the results and report them to the class. Asks for comments on the results.
3. Uses the survey to monitor attendance, if needed.

Student Role:

1. Reply anonymously to ensure frankness, but check off their name from class list.
2. Make statements of analysis, evaluation, or judgment regarding the survey results.

Assessment:

1. Are students reflecting more on readings or other information sources?
2. Are the students confident that the instructor values their prior knowledge but at the same time expects objective analysis and reflection whenever possible?

Think-Write-Pair-Share. In a lecture-format classroom, pausing at ten-minute intervals for at least two minutes or more of processing improves the level of student engagement and understanding. Think-Write-Pair-Share is a protocol for students to reflect, analyze, and collaborate with other students in response to an instructor’s prompt in a lecture or during

other times in the period. The prompt might be a slide in a PowerPoint, a point in the lecture, or an excerpt from a reading.

Instructor Role:

1. Choose a prompt from one of many possible sources and direct students in a timed thinking period, a writing period, and then a sharing with one or two partners.
2. Circulate throughout the class reading over students' shoulders and eavesdropping on the conversations.
3. Ask a few students to share their reflections or those of their partners.

Student Role:

1. Focus on one or two points that the instructor deems significant or perhaps complicated.
2. Have a chance to share their impressions, and perhaps their doubts, about the meaning of the material at hand.

Assessment:

1. Are students connecting the new information with their prior knowledge?
2. Are the students learning to air their questions, or criticisms, in an open manner?
3. Is the instructor catching misinterpretations and confusions before they become embedded in students' minds?

Anticipation Guide. The learning from a lecture or presentation can be greatly enhanced by incorporating an Anticipation Guide that measures student knowledge and understanding prior to and immediately after a presentation. The before and after responses are on the same sheet to help students see the relevance and development of their learning. It is also an effective organizer to keep the instructor on track to cover all of the items earmarked earlier.

Instructor Role:

1. Keep it simple. Choose the most important concepts and keep it to ten or fifteen questions.

2. Choose a few questions or statements that are likely to surprise the students. Part of the advantage of using a guide is to show the students how their ideas change.

Student Role:

1. Answer the questions before receiving instruction.
2. Read/listen to the material, and then answer the questions again, noticing when their answers are different from before.

Assessment:

1. Do students connect their prior knowledge to new learning?
2. Does the instructor more accurately anticipate students' prior knowledge as well as areas of less familiarity?
3. Is the relevance of the presentation clear to students?

List-Group-Label. In a less formal setting, students are seated in groups around tables. List-Group-Label is a protocol intended to help students get an overview of a large body of material and concepts by organizing information into categories. This is done by allowing time for the students to process content through collaboration with peers in analysis and synthesis of the material.

Instructor Role:

1. Prepare a list of vocabulary items, which may denote concepts, descriptors, or artifacts of the course material or unit.
2. Each item needs to be printed beforehand or by students on a separate piece of paper such as three-by-five-inch index cards, Post-its, address labels, scrap paper, etc.

Student Role:

1. In groups, students rearrange the vocabulary items into categories. For example, for a World War I list, the words "gas," and "Big Bertha artillery" might be placed in a category named "weapons."
2. Each category must have at least two entries, and its name must not be repeated in any of the entries. For example, "democratic rights" would not be an acceptable entry in a category called "democracy."

3. Each group presents its list of labeled categories and category members.
4. In a class where there is strong student rapport, students can be encouraged, after each group has finished grouping and labeling, to challenge the other groups' thinking regarding the categories.

Assessment:

1. What student understandings do the categories suggest?
2. Are students working and participating together equitably and productively?

Carousel Brainstorming. In Carousel Brainstorming, students externalize beginning or intermediate knowledge by working together to plan, critique, or solve problems. The classroom can also be energized by a cognitive activity with physical movement.

Instructor Role:

1. Sets up topics on large papers posted around the classroom.
2. Forms the students into groups, assigns each group to one topic, and gives them time to record their thoughts, suggestions, analysis—whatever the topic calls for—on the paper. Calls the time and has the students rotate through the topics.
3. Each group is given pens of certain colors to differentiate them from other groups.

Student Role:

1. Work in their groups demonstrating their knowledge and analysis of the topic.
2. When finished, the student groups rotate to the next topic, adding their questions, comments, or suggestions on the next group's paper.
3. Students rotate through all the topics, adding information as they go.
4. Each group nominates a spokesperson who responds to the comments from the other groups.

Assessment:

1. Do students show curiosity about others' diverse opinions?
2. Do the students seem able to incorporate others' thoughts into their work?
3. Does the instructor begin to present material with the particular students' strengths and knowledge base in mind?

Jigsaw. Jigsaw is a text-based protocol in which difficult reading material is broken into sections and strategically assigned to various students. The instructor creates two types of groupings among the students: experts and teams. Each student belongs to an expert group as well as a team. Difficult material is broken into sections, each section assigned to experts. Once mastered, the sections are shared with the team.

Instructor Role:

1. Chooses a challenging reading that presents interrelated concepts or information.
2. Divides the reading into four to six more or less equally difficult sections, assigning each section to a different group of four to six experts (four reading sections = four expert groups; five reading sections = five expert groups, etc.).
3. Quizzes each team on their understanding of the reading either orally or in writing.
4. Assigns a group grade (to enforce team cooperation, many instructors give the team the lowest grade achieved by any one team member).

Student Role:

1. Understand who is in their expert group, and who is on their team.
2. At the end of a set period of reading, discussion, and analysis, the members of each expert group return to their team with the mission of teaching them the contents of their reading section. They are the "experts" on their section.
3. Listen to the rest of the members of their team as they instruct about their sections.
4. Ask questions of the other experts and, since the group grade will be based on the weakest member of the team, check for understanding among all the team members.

Assessment:

1. Are students learning to rely on their peers to help them better understand information?
2. Are students able to clarify doubts and questions with their peers?

Final Word. Final Word is a text-based discussion group protocol. It allows all students to participate equitably without interruption by following clear procedures. The protocol also enhances the quality of discussion by requiring students to reference the source that they are speaking about and comment on the content. The protocol also keeps the focus on one topic at a time.

Instructor Role:

1. Provides an article, film clip, newspaper article or some other resource for students to review.
2. Typically, this protocol works best for resources that represent an integration of past learning, not brand-new concepts.
3. Organizes the students into various small groups of three to four members.
4. Time the rounds so that each student gets equal time to talk.

Student Role:

1. Join into groups and number off from one to three or one to four.
2. The first student indicates a sentence or paragraph in the material that represented a particularly interesting idea, analysis, or interpretation.
3. Each of the other students, in turn, comments on that one sentence or paragraph, either enlarging upon the thought or critiquing the thought.
4. When the other students have all spoken, the initiating student closes the discussion with his/her reasons for the choice and possible change of thinking due to the other students' comments.
5. The process is repeated so that each student is the initiating student.

Assessment:

1. Do students show curiosity about others' diverse opinions?
2. Does the instructor notice improvement in the students' tendency to incorporate various points of view into their work?
3. Are all students sharing their thoughts more freely thereby producing more robust discussions?

Inquiry Approach to Data Interpretation. This approach allows students to indicate at the beginning of new material the extent of their prior knowledge, as well as make connections to new knowledge.

Instructor Role:

1. Choose a set of data points that are closely related to the new material. (e.g., regional variations in the United States of child mortality)
2. Lead the students in a discussion of possible interpretations of the data.
3. Illustrate the way a possible interpretation would lead to further questions and study.

Student Role:

1. Review the data points and jot down ideas for possible interpretations and/or conclusions.
2. Share their thoughts in a class discussion.

Assessment:

1. Does the instructor get a solid sense of the current background knowledge of class members?
2. Do the students experience a balance between the instructor's presentations and the student contributions? Is content balanced with process?

Simulation. A simulation is a learning activity that assigns roles to students and often presents them with a problem to solve. A simulation can fulfill the following purposes: reinforce inquiry learning, teach a chronology, teach connections, teach a concept, teach a process such as bargaining or interviewing, experience a different culture or mindset, and/or teach emotional intelligence. Some examples of emotional

intelligence outcomes are learning to resolve a conflict, empathize, manage feelings, communicate appropriately under stress, and cooperate in a group. Designing and implementing a classroom simulation can range from focusing on a very short experience used to introduce a topic to a more complex learning activity. Longer simulations initially require more preparation time by the instructor to effectively implement. However, the outcomes are well worth the effort with students experiencing virtually firsthand the roles and issues being studied and engaging more deeply in the material because they feel they have leverage in the outcomes in the classroom. Rich discussions that follow are often reflected in higher retention of facts and concepts. These outcomes may motivate the instructor to create other simulations and continue the practice in subsequent courses.

Elements of a simulation:

1. Goals and objectives
2. Roles
3. Activities (what the participants do during the simulation)
4. Rules of interaction, special procedures, penalties
5. Parameters of the game (time allotment, behavioral rules)
6. Method of assessment (questioning, quizzing, presentations, earning points)
7. Rewards (points, prizes, privileges)
8. Debrief
9. Reflection
10. Reinforcement of the learning

Concerns of implementation:

1. What is the teacher's role?
2. Which elements of the simulation are flexible?
3. How to encourage participation by all students?

Conclusion

Changing to an instructional approach with the focus on the learner rather than the content is a paradigm shift. The rapid changes in our society and world demand that higher education be more responsive to citizens

living in a pluralistic society. It is a moral imperative no less critical than the challenges of providing equitable education in the K-12 educational system. The changes required in such a shift challenge present practices, beliefs, and identities of higher education faculty. As with most changes, a simplistic understanding will bring about superficial change with little impact. Simply implementing a set of activities into the classroom will not guarantee change in student achievement. A thoughtful and effective change that improves student learning will need a deeper philosophical framework and a sense of coherence that undergirds instructional moves. Both the instructor and students will need to know what, why and how they are to participate throughout the course. The purpose of an activity and the connection to the course outcomes need to be explained in order for adults to fully appreciate and then participate. Instructors who take a growth mindset stance, willing to assess their effectiveness frequently and search for cause and effect relationships, will in the very least model learning for their students and very likely bring about a greater access to learning.

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